

March 31, 1936.

B. B. KOSANOVICH

2,035,897

COMBINATION ROLLER AND ICE SKATE

Filed Oct. 1, 1934

3 Sheets-Sheet 1

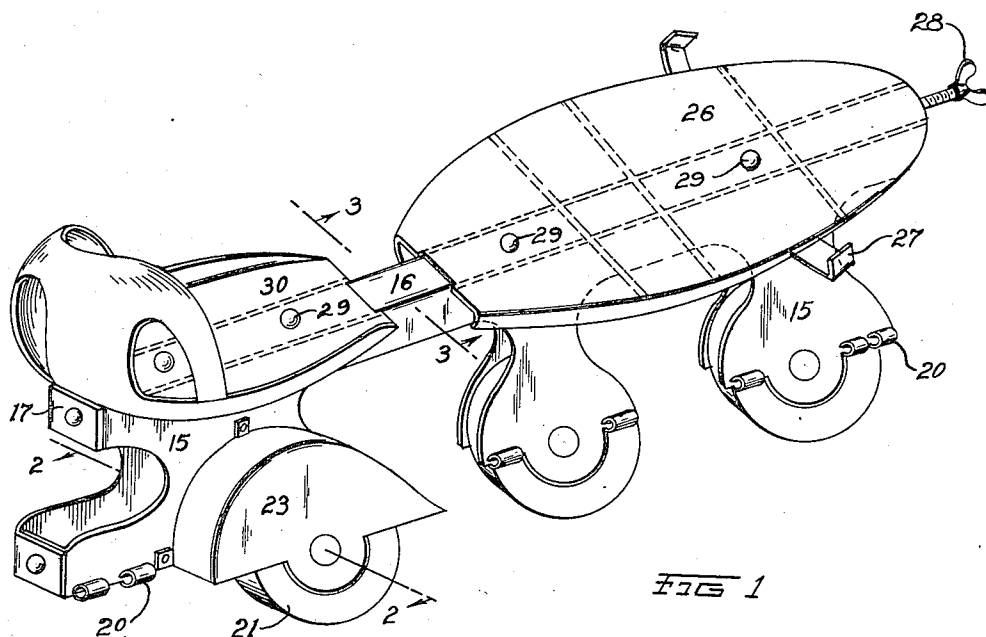


FIG 1

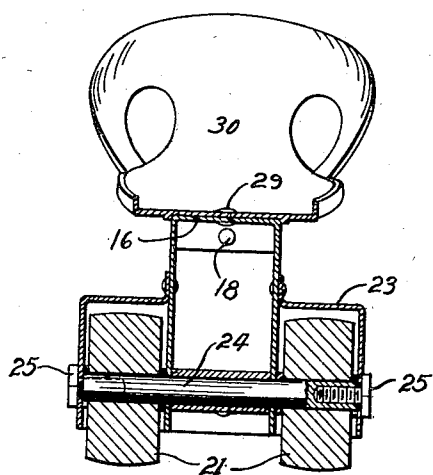
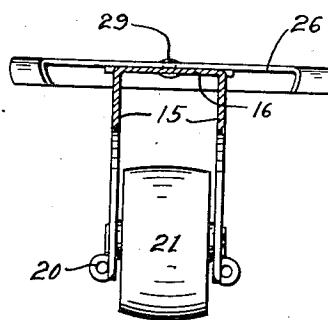


FIG 2



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3 Sheets-Sheet 2

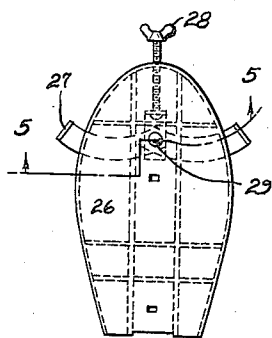


FIG 4

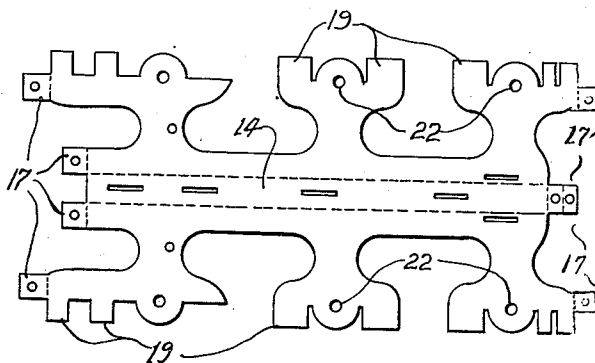


FIG 5

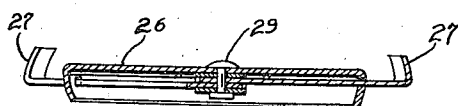


FIG 6

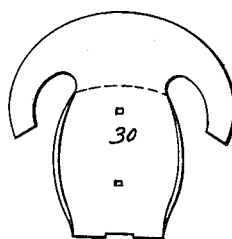


FIG 7

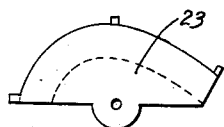


FIG 8

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3 Sheets-Sheet 3

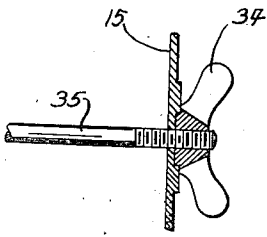


FIG 11

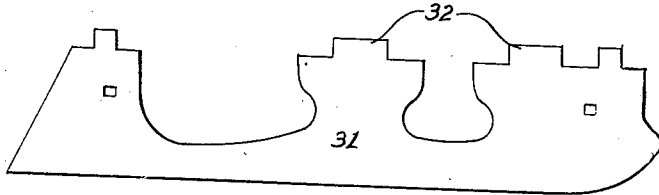


FIG 12

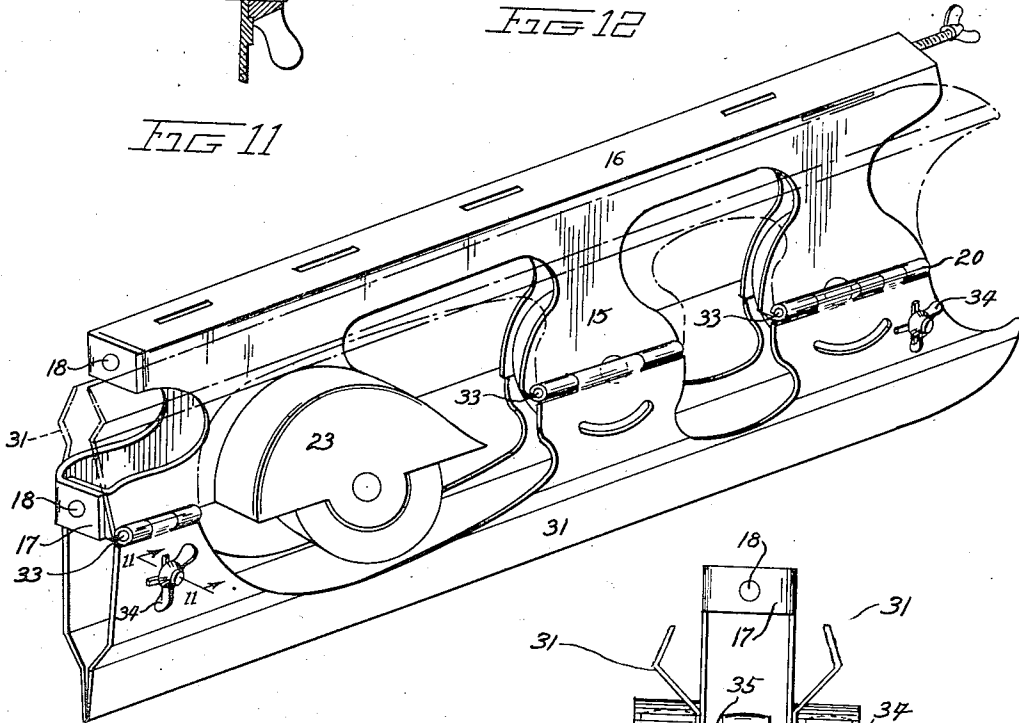


FIG 9

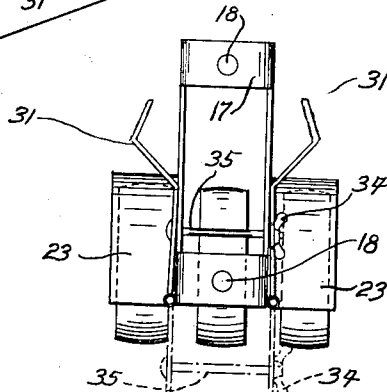


FIG 10

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UNITED STATES PATENT OFFICE

2,035,897

COMBINATION ROLLER AND ICE SKATE

Burke B. Kosanovich, Milwaukee, Wis., assignor
of forty per cent to Rudolph Aaron Nelson,
Milwaukee, Wis.

Application October 1, 1934, Serial No. 746,300

6 Claims. (Cl. 208—173)

My invention relates to combination roller and ice skates and the principal object of my invention is to combine in one article the usual roller skate and the usual ice skate, thus eliminating an extra pair of skates and permitting a double use to be made of one pair of skates, also with less expense.

A further object of my invention is the provision of a combination roller and ice skate which, with a few moments adjustment, may be used either for roller skating or for ice skating.

A still further object of my invention is the provision of a combination roller and ice skate in which it is not necessary to temporarily discard or remove any of the parts of the skate when using them for either purpose, so as to entirely eliminate any possibility of losing any such parts.

A still further object of my invention is the provision of a roller skate which will eliminate the usual jarring and clatter as the wheels of the skate pass over the joints in cement sidewalks.

Still further objects of the invention is an ingenious design which permits a construction light in weight, streamline design, neat appearance and low cost of manufacture.

With these objects in view, the invention consists in a construction and combination of parts of which a preferred embodiment is illustrated in the accompanying drawings but to which embodiment the invention is not to be restricted. Continued use in practice may dictate certain changes or alterations and the right is claimed to make any which fall within the scope of the annexed claims.

In the drawings:—

Fig. 1 is a perspective view of my skate in adjustment for roller skating but with the ice-runner removed so as to clarify the drawing.

Fig. 2 is a vertical cross-sectional view on the line 2—2 of Fig. 1.

Fig. 3 is a vertical cross-sectional view on the line 3—3 of Fig. 1.

Fig. 4 is a top view of the forward portion of the skate.

Fig. 5 is a vertical cross-sectional view on the line 5—5 of Fig. 4.

Fig. 6 is a view illustrating the sheet metal blank before folding or bending into required shape to form the main body of the skate.

Fig. 7 is a top view of the rear or heel portion of the skate.

Fig. 8 shows one of the fenders that cover the rear wheels.

Fig. 9 shows my skate in adjusted position for

ice-skating, the foot and heel rests being omitted for clarification of the drawing.

Fig. 10 shows a rear view of Fig. 9 and illustrates how the two rear wheels may be removed and one wheel placed in the center.

Fig. 11 is a vertical sectional view of a part of Fig. 9 taken on the line 11—11.

Fig. 12 is a view of one of the half parts of the ice-runner previous to bending into desired shape.

Referring to the drawings in which like numerals refer to similar parts throughout the several views, the numeral 14 denotes the main body of the skate, the sheet metal development of which is illustrated in Fig. 6. This frame, when bent into shape comprises two symmetrical vertical sides 15 with a narrow horizontal longitudinal top 16, the forward and rearward ends having lugs 17 riveted together at 18. The lugs 19 shown in the blank in Fig. 6 are bent into hinges 20 as better illustrated in Figs. 1, 3, and 9. The usual roller wheels 21 are secured to the main frame 14 between the bent sides 15 as shown, the holes 22 in blank 14 serving as bearings in the usual manner.

Instead of the customary design of two wheels in front and two wheels in the rear of the skate, I prefer one wheel in front on direct center line of the skate, one wheel in the middle of the skate directly behind the front wheel and two wheels in the rear as clearly illustrated in Fig. 1. This arrangement has the advantage of providing balance for beginners due to the two rear wheels, yet due to the middle wheel, will permit skating over the joints in cement sidewalks without any jarring or noise as will be readily understood. When a skater has become proficient, the two rear wheels may be removed and only one of the wheels placed in the center as illustrated in Fig. 10, thus providing a roller skate with three wheels all of which are in line, making roller skating easier and more enjoyable. Fenders or mud-guards 23 are provided over the two rear wheels, the outer end of the fender also providing a bearing for the wheel axle 24, a securing nut 25 being arranged as shown. The usual foot rest 26 is secured at 29 to the upper end 16 of the frame and the usual sole clamps 27 and clamp adjusting screw 28 are provided. A heel rest 30 is also secured at 29 to the rear part of the upper end 16 of the frame. In this condition, the skate is to be used for roller skating.

In order to enable my skate to be used for ice-skating, I provide two symmetrical shaped sheet

metal blanks 31, (see Fig. 12), these blanks being bent to the shape illustrated in Fig. 9, the lower edges of the blanks forming the ice-runner while the upper edges have their protruding lugs 32 formed into hinges 20 which fit into spaced relation with the hinges 20 formed from the lugs 19 of the main frame blank 14. A suitable pin 33 hingedly secures the ice-skate 31 to the sides 15 of the main frame.

Should it be desired to again use the skate as a roller skate, all that is necessary is to remove the wing nuts 34, swing the two sides of the ice skate upward, as indicated by the dotted lines in Fig. 9 and replace the wing nuts in their new position, thus securely holding the ice runners out of the way while my skate is being used as a roller skate. To provide rigidity, the wing nuts are recessed in a tight fitting depression as illustrated in Fig. 11. The wing nut 34 is screwed onto the bolt 35 as better illustrated in Fig. 10, which also shows the ice-skates in "out of use" position.

From the foregoing description it will be apparent that I have evolved a combination roller and ice-skate of exceedingly simple and novel construction, which will not interfere with the use of the skate for either purpose and which has many useful advantages and conveniences. The wheels are entirely enclosed, thus preventing splashing of mud, the skate may be used for either ice-skating or roller-skating, and when a person becomes proficient in roller skating, one wheel may be substituted for the two rear wheels, thus providing a roller skating sensation not obtainable in the usual roller skate with the additional feature of quiet running.

I claim:—

1. In a combination roller and ice skate, a U-shaped frame, toe and heel fastening means attached to the outer upper end of said frame, means for attaching rollers to the sides of said frame, and ice runners hingedly attached to the sides of said frame.

2. In a combination roller and ice skate, a U-shaped frame, toe and heel fastening means attached to the outer upper end of said frame, means for attaching rollers to the sides of said frame, ice runners hingedly attached to the sides

of said frame, and means for securing said ice runners either above or below said rollers.

3. In a combined roller and ice skate, a main frame formed into U-shape from a single blank of sheet metal, oppositely disposed lugs on the sides of said blank which form bearing supports for rollers when said blank is bent into U-shape, rollers mounted to the sides of said frame, oppositely disposed lugs on said blank from which loops are formed, two sheet metal ice runners also provided with similar lugs bent into loops and forming hinge members with the U-shaped frame, and means on said ice-runners for rigidly securing same to said main frame either above or below said rollers.

4. In a roller skate formed from a blank of sheet-metal, said blank being bent into a U-shaped frame, lugs on the front and rear of said frame and overlapping each other, means for securing said lugs together to form a rigid frame, oppositely disposed lugs on the sides of said frame, said last mentioned lugs forming supports for wheels, and a toe and heel support mounted on the middle of the U-shaped frame.

5. In a roller skate formed from a blank of sheet-metal, said blank being bent into a U-shaped frame, lugs on the front and rear of said frame, means for securing said lugs together to form a rigid frame, oppositely disposed lugs on the sides of said blank which form supports for wheels, a toe and heel support mounted on the middle of the U-shaped frame, and fenders attached to the outer sides of said frame and covering the rear wheels thereof.

6. In a roller skate formed from a blank of sheet-metal said blank being bent into a U-shaped frame, lugs on the front and rear of said blank, means for securing said lugs together to form a rigid frame, oppositely disposed lugs on the sides of said blank which form supports for wheels, a toe and heel support mounted on the middle of the U-shaped frame, and fenders attached to the outer sides of said frame and covering the rear wheels thereof, said outer sides of said fenders also forming bearings for said wheel mountings.

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