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F. P. KINSLEY

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SNOW SKATE

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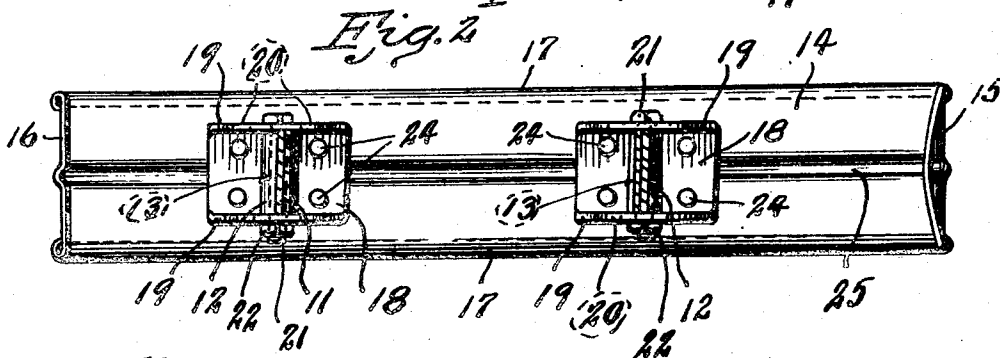
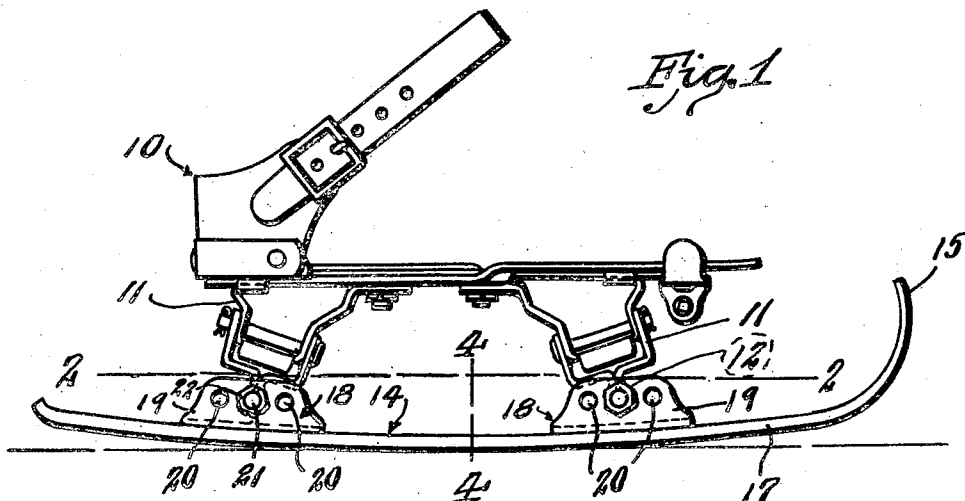


Fig. 3

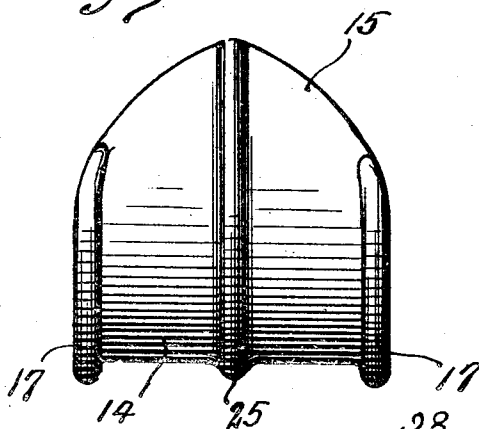
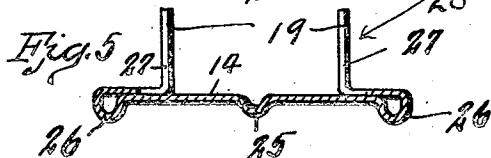
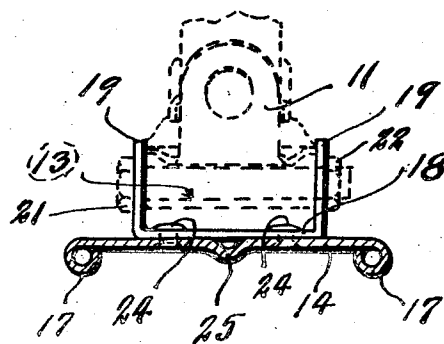


Fig. 4



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SNOW SKATE

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This invention relates to new and useful improvements in snow skates, one of the objects of the invention being the provision of a steel runner constructed that it can be readily attached to the foot gear of a roller skate of any well-known make.

Further objects of the invention are to provide a snow skate having a novel form of runner formed of sheet steel of substantial width and having its longitudinal edges beaded and disposed below the plane of the main body of such runner, the forward end of said runner being curved upwardly.

Other objects of the invention are to provide a snow skate having a runner of the class described and having its upper face provided with upwardly presented ears or lugs arranged in pairs spaced from each other, said ears being apertured and adapted to receive, and have secured thereto by means of suitable bolts, the depending brackets of a suitable foot gear such as generally used with roller skates.

Additional objects of the invention are to provide a snow skate having a runner formed of sheet steel of suitable width and having its underside formed with a slight camber and provided with a series of longitudinally disposed downwardly projecting ribs or beads for engaging the snow surface, the upper face of said runner being provided with two pairs of spaced upwardly projecting lugs or ears, each of which has a series of apertures and adapted to have secured thereto, by means of suitable bolts, the depending brackets of a suitable foot gear, the plurality of apertures permitting adjustment of the foot gear longitudinally relatively to the snow skate.

With these and other objects in view, my invention consists in certain novel features of construction and arrangement of parts, hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevational view of my snow skate.

Figure 2 is a horizontal cross section taken on line 2—2 of Figure 1.

Figure 3 is a front elevational view of the runner member.

Figure 4 is an enlarged cross section taken on line 4—4 of Figure 1 and showing the attaching bracket of the foot gear in dotted lines.

Figure 5 is a transverse cross section through a modified form of my snow skate.

Roller skates have their rollers journalled in suitable depending brackets by means of bolts which are mounted in the horizontally and transversely disposed seats formed in said brackets. These bolts are detachable in order to permit replacement of the rollers.

It is the purpose of my invention to permit the use of this foot gear in conjunction with my improved runner by the removal of said rollers and their corresponding bolts and bolting to the depending brackets of the foot gear the ears or lugs extending upwardly from the runner.

Referring by numerals to the accompanying drawings, 10 indicates a foot gear of a roller skate which may be of any standard construction. Depending from this foot gear is a pair of brackets 11, each of which terminates in a horizontally and transversely disposed tubular member 12 having a seat 13 for the reception of suitable bolts. A runner 14 is formed of sheet steel and is of suitable width so as to extend a suitable distance on each side of brackets 11. This runner is given a slight camber so that it curves upwardly at both ends as clearly shown in Figure 1.

The forward end of the runner is extended upwardly and is slightly pointed as indicated at 15. The rear end of the runner is slightly upturned as indicated at 16. The edges of the runner are turned downwardly and then upwardly to provide longitudinally disposed downwardly presented beads 17 which extend below the plane of the main body portion and are normally in supporting contact with the snow surface, thereby reducing friction and reinforcing the runner.

A pair of brackets 18 is attached to the upper face of the runner at spaced points and each bracket is provided with a pair of upwardly extending spaced lugs or ears 19,

The lugs of each bracket are provided with a series of apertures 20, the apertures of the respective ears being aligned with each other and are adapted to receive bolts 21 which
 5 extend transversely of the brackets and have their threaded ends adapted to receive nuts 22. Lugs 19 are spaced from each other a suitable distance so as to receive therebetween the tubular members 12 of brackets 11.
 10 Bolts 21, when seated in the respective apertures, pass through the seats 13 and thus secure the foot gear 10 and runner 14 in assembled relation.

The arrangement of spaced apertures 20
 15 permits the adjustment of the foot gear 10 longitudinally relatively to the runner.

Brackets 18 may be either riveted to the runner 14 as indicated at 24, or may be secured in any other suitable manner, such
 20 as spot-welding.

These brackets are spaced from each other so as to accommodate the roller bearing lugs of the standard make roller skates and as each bracket has its ears provided with a
 25 plurality of spaced apertures, the foot gear can be adjusted longitudinally to fit different sized shoes, and the runner secured thereto by means of the appropriate apertures.

30 The turned or beaded edges are disposed downwardly below the plane of the main body portion of the runner and form the supporting surfaces for the runner, thereby reducing friction and increasing the ease
 35 with which the runner may be operated over the snow surface. Furthermore, said beaded edges reinforce the runner. This runner may be further reinforced by one or more ribs 25 which extend longitudinally
 40 of the runner and are presented downwardly.

The runner can be furnished either separately from the foot gear, in which case the rollers are detached from the ordinary roller
 45 skates and the runner attached thereto, or the snow skate can be sold complete with the foot gear attached, in which instance the foot gear of the standard make roller skates can be used minus the rollers.

50 In the modified form shown in Figure 5, the longitudinal side beads 26 are formed by bending the sides of the body member downwardly and then upwardly and inwardly over the upper face of said member
 55 as indicated at 27. These edge portions are provided with extensions which are bent upwardly at right angles to said body portion to form the lugs 19. In this form the brackets are formed integral with the runner
 60 and no spot-welding or riveting is required.

The skates can be used either on snow or ice. In using the skates on snow the entire surface of the runner is used, the central
 65 rib 25 forming a guide and maintains the skates on their true course. In using the

skates on ice or frozen snow, only the beaded edges rest on the hard surface.

My improved skate can be economically manufactured and as no special foot gear is required, the cost thereof is not very great. 70 By enabling the use of foot gear of roller skates, during the season when roller skates cannot be used, a double advantage is thus gained.

While I have shown and described the 75 preferred forms of my invention, it is obvious that various other changes in the construction and arrangement of parts of my improved skate can be made and substituted for those herein shown without departing 80 from the spirit of my invention.

I claim:

1. A snow skate of the class described comprising in combination a roller skate foot gear including depending lugs from 85 which rollers have been removed, a single piece runner of a greater length and width than said foot gear, brackets extending upwardly from said runner near each end thereof, each bracket comprising a pair of 90 transversely spaced ears arranged on the opposite sides of the respective lugs, and means for securing said brackets to said lugs and attaching said runner to said foot gear.

2. A snow skate of the class described 95 comprising in combination a roller skate foot gear including depending lugs from which rollers have been removed, a runner of sheet metal and of substantial width and provided with a centrally and longitudinally 100 disposed rib and beaded edges extending below the plane of the body portion of said runner, brackets extending upwardly from said runner, each bracket comprising a pair of ears spaced transversely for engaging 105 the opposite sides of the respective lugs, and means for attaching said brackets to the lugs of said foot gear.

3. A snow skate of the class described comprising in combination a roller skate foot 110 gear including depending lugs from which rollers have been removed, a runner of sheet metal and of substantial width, the longitudinal edges of which are formed with downwardly presented beads, said runner 115 being formed with a slight camber and a centrally and longitudinally disposed rib, and means for detachably securing said runner to the lugs of said foot gear.

4. In a device of the class described, a 120 runner for snow skates comprising an elongated member of sheet steel of substantial width, said runner being formed with a slight camber and having its forward end curved upwardly, the underside of said 125 member being provided with a centrally and longitudinally disposed rib, and a plurality of brackets secured to and extending upwardly from said member, each bracket comprising a pair of ears spaced transversely 130

of said runner, the upper ends of the ears of each bracket being formed with aligned apertures adapted to co-register with apertured lugs of a suitable footgear and be detachably secured thereto.

5 5. A runner for snow skates comprising a sheet metal member of substantial width having its longitudinal edges turned downwardly and inwardly to provide longitudinal
10 beads disposed below the plane of the body portion of said member, said member having a slight camber and having its forward end curved upwardly, and apertured lugs projecting upwardly from said member and
15 adapted to have secured thereto a suitable foot gear.

6. A skate of the class described comprising in combination a roller skate foot gear including depending lugs normally
20 carrying rollers, a runner provided with a longitudinally and centrally disposed rib having a slight camber, ears extending upwardly from said runner, each ear having a plurality of apertures spaced longitudinally whereby said foot gear can be
25 adjusted longitudinally relatively to said runner, and bolts for detachably engaging said lugs to the respective ears.

7. A skate of the class described comprising in combination a roller skate foot gear including depending lugs from which rollers
30 have been removed, a runner of sheet metal and provided with a plurality of downwardly presented longitudinally disposed ribs, a plurality of ears arranged in pairs
35 and extending upwardly from said runner, the lugs of each pair being provided with a plurality of apertures spaced longitudinally, and detachable means for attaching said
40 lugs to the respective pair of ears, said plurality of apertures permitting longitudinal adjustment of said foot gear relatively to said runner.

In testimony whereof I hereunto affix my
45 signature this 21st day of January, 1930.

FELIX P. KINSLEY.

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