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S. DE ORLOW

SKATE

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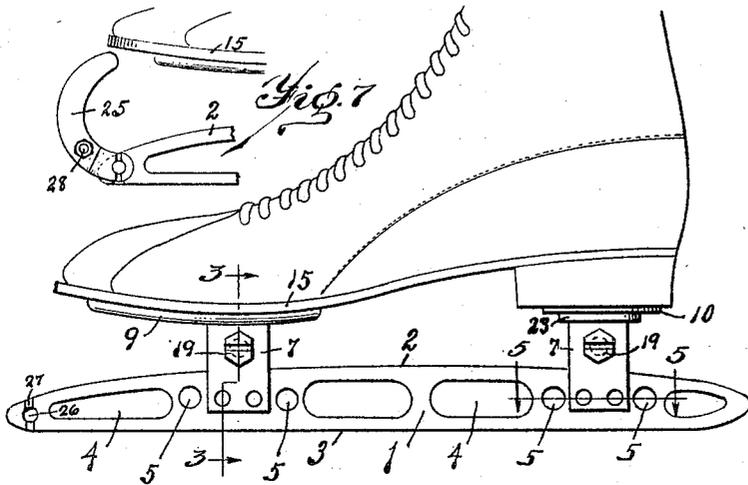


Fig. 1

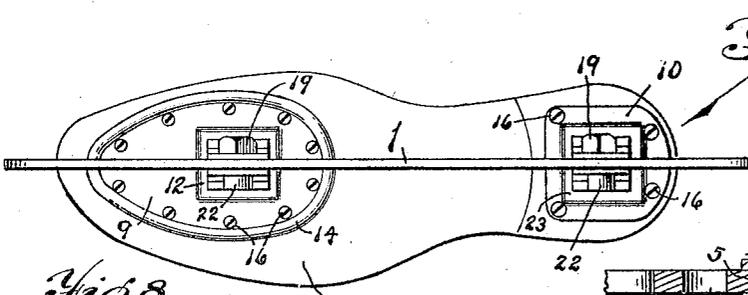


Fig. 2

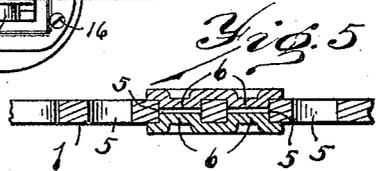


Fig. 5

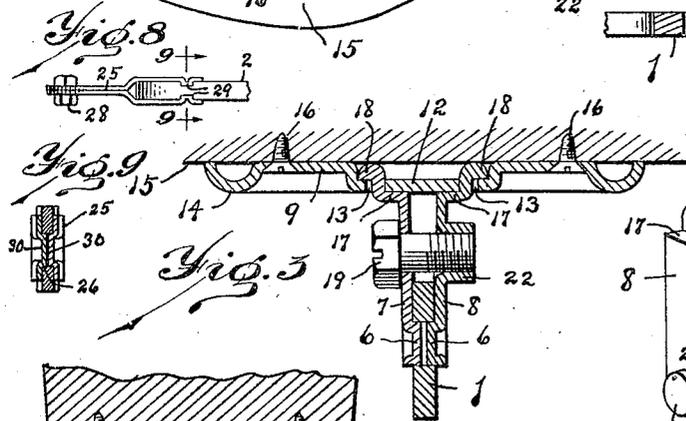


Fig. 8

Fig. 9

Fig. 3

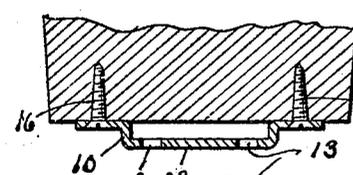


Fig. 4

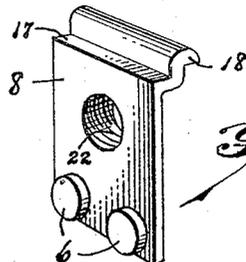


Fig. 6

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UNITED STATES PATENT OFFICE.

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SKATE.

Application filed February 3, 1922. Serial No. 533,843.

To all whom it may concern:

Be it known that I, STEPHEN DE ORLOW, a citizen of the United States, and residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and Improved Skate, of which the following is a specification.

This invention relates to ice skates having interchangeable runners, and its object is to provide a skate of this character with attaching plates adapted to be secured to the sole and heel of a shoe and so constructed that the runner can be readily attached thereto and which plates are so formed that they will not prevent the wearer walking on the shoe and will not necessitate cutting of the sole or heel in order to admit the brackets which support the runner.

This invention consists in a pair of supporting plates adapted to the sole and heel of a shoe and provided with raised portions provided with slots, a runner, a pair of brackets, one for the heel and the other for the sole, each bracket made of two clamp members having hooks at their ends adapted to extend through the slots in the supporting plates and having their other ends adapted to engage the runner, and means to cause the two clamp members of each bracket to grip the runner.

It also consists in the details of construction illustrated in the accompanying drawings and particularly pointed out in the claims.

In the drawing, Fig. 1 is a side elevation of a shoe with this improved skate attached thereto. Fig. 2 is bottom plan thereof. Fig. 3 is a section on the line 3—3 of Fig. 1. Fig. 4 is a transverse section of the heel plate. Fig. 5 is a section on the line 5—5 of Fig. 1. Fig. 6 is a perspective of a clamp member. Fig. 7 is a side elevation of an attachment for the toe of the runner. Fig. 8 is a bottom plan thereof. Fig. 9 is a section on the line 9—9 of Fig. 8.

Similar reference characters refer to like parts throughout the several views.

The runner 1 of the skate shown in the drawing is preferably formed with two operative edges 2 and 3 so that the skate can be used for distance or for fancy skating. It is also preferably formed with slots 4 to reduce its weight and with holes 5 to receive the bosses 6 on the clamp members

7 and 8 which are used in pairs to constitute brackets whereby the runner may be attached to the supporting plates 9 and 10. It will be understood that the clamping members forming either the front or rear bracket may be provided with only one boss so that the bracket may swing on the runner either forward or backward as the shoe changes its shape.

The sole plate 9 is of any desired size and has a pressed-out portion 12, preferably rectangular, formed with slots 13, and a circumferential rib 14 of the same height as the portion 12. This plate is secured to the sole 15 by means of screws 16. The clamp members for the front bracket have outwardly extending shoulders 17 to engage the pressed-out portion 12 of the plate 9 and end lips 18 adapted to be hooked through the slots 13 and then swung to the position shown in Fig. 3. The clamp member 7 has a central hole to receive the screw 19 while the member 8 has a threaded boss 22, preferably formed by punching and drawing, to receive this screw. The bosses 6 may be easily formed to fit the holes 5 in the runner fairly snugly and when the screw 19 is tightened the runner becomes rigidly attached to the sole plate.

The heel plate 10 has a pressed out portion 23 similar to the portion 12 on the sole plate and for the same purpose. The slots 13 for the clamp members 7 and 8 will again be the same. The bracket supporting the rear end of the runner is preferably the same in all respects as that supporting the front end. I prefer to form the runner with a few extra holes 5 for the bosses 6 so that a runner of a particular length may be adapted to shoes of different sizes.

I have found that when sailing on skates it is desirable to provide means to prevent the crusts of snow, often found on open ice, from crowding in between the front end of the runner, the front bracket and the front portion of the sole of the shoe. Skaters may be tripped by such crusts of snow and when traveling at high speeds under the pull of the sails, may be seriously injured. To prevent this, a nose 25 may be attached to the runner, as shown in Fig. 7, the runner being formed with circular depressions 26 at each side of its front end and with grooves 27. The nose or prow

25 is preferably of two parts held together by the bolt 28, each part having an internal rib 29 adapted to fit the groove 27 and a boss 30 to enter the depression 26. These noses or prows will cut the crusts of snow so that they will offer very little obstruction to the skater.

The details and proportions of the several parts of this skate may all be changed by those skilled in the art without departing from the spirit of my invention as set forth in the following claims.

I claim:—

1. A skate consisting of a runner, sole and heel plates, brackets detachably connecting the runner and said plates, the brackets being each formed of two independent clamping members attached to the runner by a screw, said plates and clamping members being formed with interengaging portions whereby the brackets and runner are held rigid relative to said plates.

2. A skate consisting of a runner, sole and heel plates, brackets detachably connecting the runner to the plates, the brackets being each formed of two independent clamping members, and means to secure them to the runner, said plates and clamping members being formed with interengaging portions whereby the brackets and runner are held rigid relative to said plates.

3. A skate consisting of a runner, sole and heel plates, brackets connecting the runner and said plates, the brackets being each formed of two clamping members attached to the runner by a screw, the plates being formed with pressed-out portions provided with slots and the clamping members being

formed with hooks to detachably engage in said slots.

4. A skate consisting of a runner, sole and heel plates, brackets connecting the runner and said plates, the brackets being each formed of two clamping members attached to the runner by a screw, the plates being formed with pressed-out portions provided with slots and the clamping members being formed with hooks to detachably engage in said slots, and the sole plate being formed with a circumferential rib as high as the pressed-out slotted portion.

5. A skate consisting of a runner, sole and heel plates, brackets connecting the runner and said plates, the brackets being each formed of two clamping members attached to the runner by a screw, the runner being formed with holes and the clamping members being formed with bosses to extend into these holes to form a rigid connection with the runner, said plates and clamping members being formed with interengaging portions whereby the brackets and runner are held rigid relative to said plates.

6. A skate consisting of a runner, sole and heel plates, brackets connecting the runner and said plates, the brackets being each formed of two clamping members attached to the runner by a screw, and a nose detachably secured to the front end of the runner and extending upward toward the sole plate, said plates and clamping members being formed with interengaging portions whereby the brackets and runner are held rigid relative to said plates.

STEPHEN DE ORLOW.