

945,435.

Fig. 2.

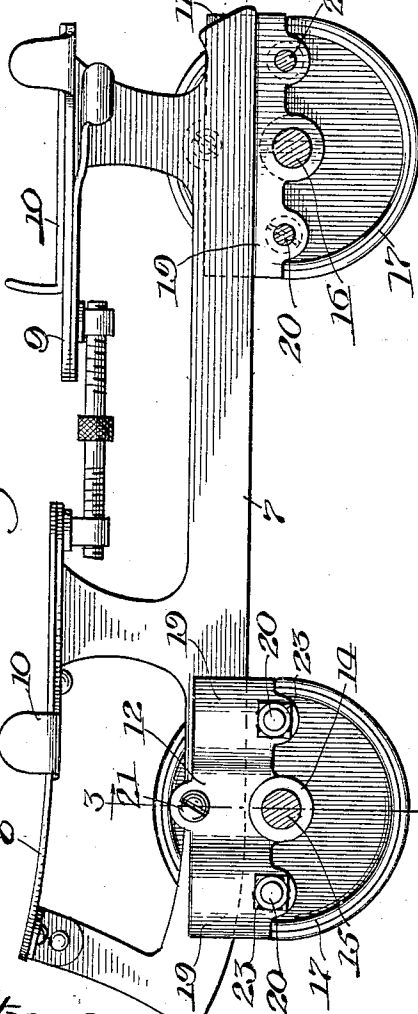


Fig. 7.

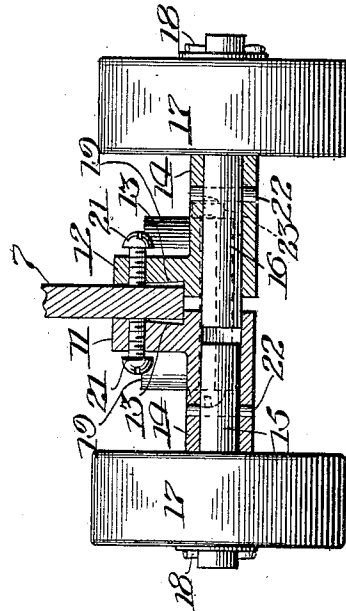
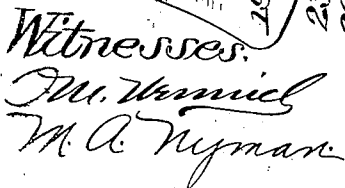


Fig. 5.

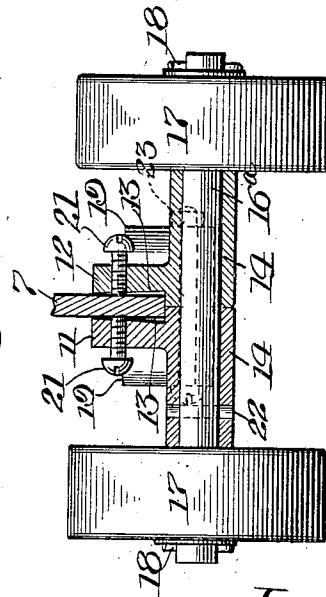


Fig. 2.

Inventor:  
Alfred Anderson.  
by Chas C. Willman Atty.

# UNITED STATES PATENT OFFICE.

ALFRED ANDERSON, OF CHICAGO, ILLINOIS.

## CONVERTIBLE SKATE.

945,435.

Specification of Letters Patent.

Patented Jan. 4, 1910.

Application filed April 29, 1909. Serial No. 492,913.

*To all whom it may concern:*

Be it known that I, ALFRED ANDERSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Convertible Skates, of which the following is a specification.

This invention relates to improvements in combination ice and roller-skates, and it consists in certain peculiarities of construction, novel arrangement, and operation of the various parts thereof, as will be hereinafter more fully set forth and specifically claimed.

The principal object of the invention is to provide roller-carrying attachments for an ordinary ice-skate, which may be readily secured to or detached from the blade of the ice-skate so that the same may be used as a roller-skate or an ice-skate.

Another object of the invention is to provide attachments of the above-named character, which shall be simple and inexpensive in construction, strong, durable and efficient in operation.

Other objects and advantages of the invention will be disclosed in the subjoined description and explanation.

In order to enable others skilled in the art to which my invention pertains, to make and use the same, I will now proceed to describe it, referring to the accompanying drawing, in which—

Figure 1 is a side view of an ordinary ice-skate with my invention applied thereto, showing the wheels on one side of the skate-blade removed and the axles therefor in section; Fig. 2 is a plan view of one of the clamps of one of the roller-carrying attachments, showing it detached from the skate-blade and its axles and the wheels thereon omitted; Fig. 3 is a view partly in section and partly in elevation taken on line 3—3 of Fig. 1 looking in the direction indicated by the arrows, showing one of the attachments clamped to a portion of the blade of the ice-skate; and Fig. 4 is a similar view taken on the same line, but illustrating a modification in the construction of the axle of the attachment.

Like numerals of reference, refer to corresponding parts throughout the different views of the drawings.

The reference numeral 7 designates the blade of an ordinary ice-skate, which may be equipped with a foot-plate 8 and a heel-

plate 9 each having clamping means 10 of the ordinary or any preferred construction so as to hold the skate on the foot of the user. As this clamping means constitutes no part of the invention it is deemed unnecessary to herein describe the same. Secured to the front and rear portions of the skate-blade 7 are the roller-carrying attachments which constitute the invention, and each of which consists of a pair of clamping-jaws 11 and 12, which may be made of any suitable size, form and material but preferably of metal and of substantially the form shown in the drawing, that is, each of said jaws consists of an elongated piece having on its inner surface a recess 13 to receive the lower portion of the skate-blade 7, and said pieces being adapted to lie longitudinally on the sides of the blade. At its lower central portion each of the jaws 11 and 12 is provided with a laterally extended sleeve 14 to receive the axle, which is preferably formed of two sections 15 and 16, as is clearly shown in Fig. 3 of the drawing, and on which are journaled the rollers 17, which may be of the ordinary or any preferred construction, and may be held thereon against outward displacement by means of cotter pins 18 passed through suitable openings in the ends of the axle, or by any other suitable means.

As is clearly shown in Figs. 1 and 4 of the drawing the sides or vertical walls of the recesses 13 of the clamping-jaws are slightly outwardly and downwardly beveled to form, when said jaws are approximated, a dovetailed groove or opening for the reception of the skate-blade 7, which may sometimes be of a corresponding shape. Near each of its ends each of the jaws 11 and 12 is provided on its outer surface with a transversely disposed and apertured boss 19, through the openings in which are extended bolts used to secure the clamping members 11 and 12 together. By reference to the different views of the drawing it will be seen and understood that the openings in the bosses 19 through which the bolts 20 are extended are located below the recesses 13 of the clamping-members so as to be out of the way of the lower edge of the skate-blade. Transversely located in a suitable opening in the upper central portion of each of the jaws 11 and 12 is a set-screw 21 which are used to impinge against the sides of the skate-blade and to assist the bolts 20 in holding the

clamping-members 11 and 12 or jaws firmly against said blade.

As shown in Fig. 3 each of the sleeves 14 of the clamping-jaws is rigidly secured by means of pins 22 to the sections 15 and 16 of the axle, and that one of the sections of the axle, usually the section 16, is longer than the other section and projects at its free end a slight distance into the inner end of the cavity of the sleeve 14 in which the shorter section is located. By forming the axle of two sections it is apparent that the clamping-members 11 and 12, as well as their sleeves 14, may be adjusted with respect to one another so as to firmly secure the attachment in position on the blade 7 by tightening up the nuts 23 on the bolts 20 and by tightening the set-screws 21 on the skate-blade.

In Fig. 4 of the drawing is shown a modification in the construction of the axle, which consists in using a single-piece axle 16<sup>a</sup> instead of one made of two sections, as shown in Fig. 3 and above-described. In all other respects, with the exception that one of the sleeves 14 of the clamping-jaws is removably mounted on the axle, the structure is the same as above set forth. By forming the axle of two sections it is apparent that the roller-carrying attachments may be removed from the skate-blade without removing either of the rollers 17 from the axle by simply loosening the nuts 23 and screws 21, but where the single-piece axle is employed one of the rollers 17, the one adjacent to the sleeve which is removably mounted on the axle, must necessarily be removed, for it will be understood that the outer ends of the sleeves 14 bear against the inner surfaces of the rollers 17 and prevent their movement inwardly on the axle.

From the foregoing description and by reference to the drawing it will be understood that the invention is susceptible of some

modification without departing from the spirit and principle thereof, and for this reason I do not desire to be limited to the precise or exact construction herein shown and described, except when so set forth in the claims.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters-Patent, is—

1. The combination with an ice-skate-blade, of a plurality of roller-supporting axles, a pair of clamping-members each having its upper portion recessed to receive a portion of the skate-blade mounted on each of said axles, and means to secure said clamping-members together and on the skate-blade.

2. The combination with an ice-skate-blade, of a plurality of roller-supporting axles, a pair of clamping-members mounted on each of said axles, each of said members having an upwardly projected extension provided with a longitudinal recess on its inner surface, a set-screw located in the upper portion of each of said extensions, and screw-bolts transversely located in the lower portion of the clamping-members to secure them together.

3. The combination with an ice-skate-blade, of a plurality of roller-supporting axles each consisting of two sections, a pair of clamping-members each having its upper portion recessed to receive a portion of the skate-blade and each provided on its lower portion with a sleeve to receive the sections of the axle, means to secure said sleeves on the axle-sections, and means to secure said clamping-members together and on the skate-blade.

ALFRED ANDERSON.

Witnesses:

CHAS. C. TILLMAN,  
M. A. NYMAN.