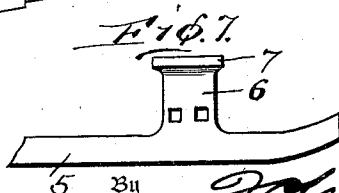
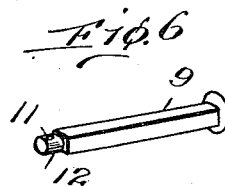
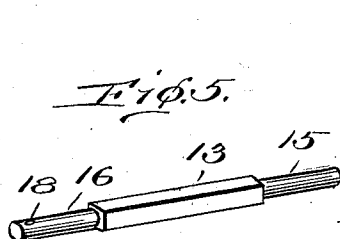
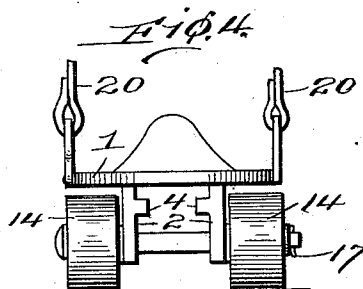
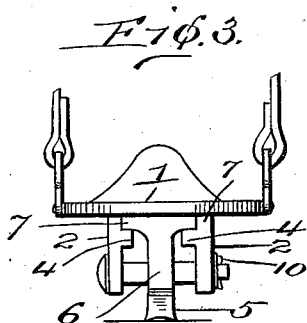
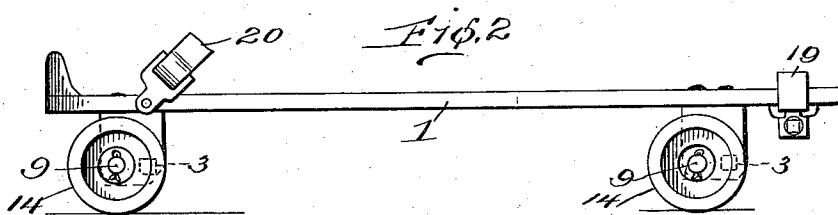
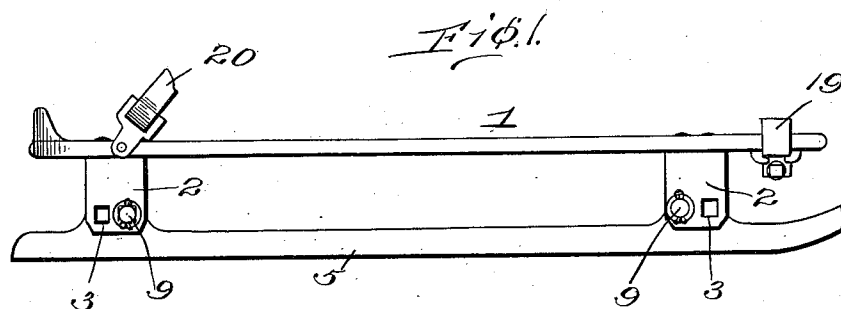


C. F. W. ZIPPEL.
DETACHABLE ROLLER AND ICE SKATE.
APPLICATION FILED DEC. 29, 1910.

1,010,105.

Patented Nov. 28, 1911.



Witnesses

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CHARLES F. W. ZIPPEL, OF RIDGEWOOD, NEW YORK.

DETACHABLE ROLLER AND ICE SKATE.

1,010,105.

Specification of Letters Patent. Patented Nov. 28, 1911.

Application filed December 29, 1910. Serial No. 599,892.

To all whom it may concern:

Be it known that I, CHARLES F. W. ZIPPEL, a citizen of the United States, residing at 681 Linden street, Ridgewood, in the county of Queens and State of New York, have invented certain new and useful Improvements in Detachable Roller and Ice Skates, of which the following is a specification.

My invention has relation to new and useful improvements in roller and ice skates and the main object thereof is to provide a skate that may be transformed from a roller skate to an ice skate or vice versa.

A further object of my invention is to provide a skate of this nature that will be efficient in operation, durable and one which may be manufactured at a small cost.

A further object of my invention is to provide an ice skate the runner of which may be adjusted longitudinally.

I reserve the right to employ any well known means adapted for the purpose for fastening the skate to the foot, such as straps or clamps.

With the foregoing and other objects in view my invention consists of the novel construction, combination and arrangement of parts as are described in this specification, illustrated in the accompanying drawings forming a part thereof and particularly pointed out in the appended claims.

Reference being had to the drawings: Figure 1 is a side elevational view of my skate as it appears when being used as an ice skate. Fig. 2 is a side elevational view of my skate as it appears while being used as a roller skate. Fig. 3 is a rear end view of my invention as when employed as an ice skate. Fig. 4 is a rear end view of my invention as it appears when being employed as a roller skate. Fig. 5 and Fig. 6 are perspective views of axles employed in connection with my skate while being used as a roller skate and ice skate respectively. Fig. 7 is a partial, side elevational view of the runner, disclosing one of the T-shaped uprights, provided integral therewith.

Referring more particularly to the drawings, in which like numerals designate like parts throughout, my invention is described as follows:

The base 1 of the skate has extending downwardly therefrom, near each of the forward and rear ends thereof a pair of parallel supports 2, each of which supports is provided with a pair of square perforations 3

therein near its lower end. Formed integral with the inner face of each of said supports 2, a short distance from the under face of the base 1 of said skate is a lug 4, each of which lugs therefor corresponds to a respective lug upon the opposite support. Each pair of lugs in conjunction with each other cooperate to form means for preventing the sidewise or vertical movement of the ice skate 5. Said ice skate 5 is provided near each of its ends with a T-shaped upright 6, the extensions 7 of the T-shaped upright are received by the space determined by the under face of the base 1 and the upper faces of corresponding lugs 4. Provided in each of said T-shaped uprights near the lower end thereof is a pair of rectangular perforations 8, one of which perforations together with corresponding rectangular perforations of the supports 2 receive a respective axle or pin 9, which pin has a rectangular cross section. Once a pin 9 is placed in position as described, a cotter pin 10 is passed through a perforation 11 in the neck 12 thereof, thus preventing the removal of the pin from proper position.

When it is desired to use the invention as a roller skate, the runner 5 is removed from its position as shown in Fig. 3 together with the pins 9 which secure the runner 5 in position as above stated. The axle or spindle 13 is then passed through corresponding perforations 3 of the supports 2, one of the rollers 14 at each end of said skate being rotatably mounted upon the reduced circular portions 15 of the axle or spindle 13 while the opposite roller is rotatably mounted upon the reduced circular portion 16 thereof. The rollers being placed in proper position the same are prevented from leaving their respective spindles and said spindles are prevented from leaving their proper position by means of respective cotter pins 17 which are passed through respective perforations 18 in each of said spindles 13.

The base 1 of the skate is secured to the foot by means of clamps 19 and straps 20 or as above stated, by any other well known means adapted for the purpose.

The object in providing a pair of rectangular perforations 8 in each of the T-shaped uprights 6 and a pair of similar perforations in each of the supports 2 is so that the runner 5 or rollers 14 may be adjusted longitudinally whenever desired. Especially in ice skating it is sometimes found bene-

5 ficial to allow the runner 5 to extend farther forward at one time than at another for different kinds of skating, it also depending upon the different skaters, some of whom desire the runners of their skates to project farther forward than others.

10 Although I have specifically described the construction, combination and arrangement of the several parts of my invention, yet I do not confine myself to such specific construction, combination and arrangement of parts as are described in this specification, but reserve and may exercise the right to make such changes therein as do not depart from the spirit of the invention or the scope of the appended claims.

Having described my invention what I claim as new and desire to secure by Letters Patent, is:

20 1. In a skate of the kind described the combination of a base with two pair of supports extending downwardly therefrom, each of which is provided with a plurality of rectangular perforations therein, said perforations registering with the perforations of the opposite support in each pair of supports, said supports adapted to support either a plurality of rollers or a runner, lugs provided upon the inner faces of said supports, arranged similarly, means provided upon the runner for the engagement of the same by said lugs, as described, substantially as shown.

35 2. In a skate of the kind described the combination of a base with two pair of supports extending downwardly therefrom, each of which is provided with a plurality of rectangular perforations therein, said perforations registering with the perforations of the opposite support in each pair of supports, said supports adapted to support either a plurality of rollers or a runner, as described, lugs formed integral with the inner faces of said supports, arranged similarly, said runner provided with T-shaped uprights which are received by the space between said lugs and the under face of the base, and a squared member adapted to engage each two registering perforations.

50 3. In a skate of the kind described the

combination of a base with two pair of supports extending downwardly therefrom, each of which is provided with a plurality of perforations therein, said perforations registering with the perforations of the opposite support in each pair thereof, said supports adapted to support either a plurality of rollers or a runner, means, comprising lugs formed upon the inner faces of said supports and arranged similarly, and T-shaped uprights provided upon said runner cooperating with said lugs, to secure the runner in position and a member adapted to engage each two registering perforations.

4. In a detachable roller and ice skate, the combination of a base with a plurality of pairs of supports extending downwardly therefrom, each of which supports is provided with a plurality of perforations therein, said perforations registering with the perforations in the opposite support, respectively, in each pair of supports, said supports adapted to support a runner, as described, lugs formed integral with the inner faces of said supports, arranged similarly, T-shaped uprights provided upon said runner cooperating with said lugs to support said runner, and a member adapted to engage the rectangular perforations.

5. In a detachable roller and ice skate, the combination of a base with a plurality of pairs of supports extending downwardly therefrom, each support provided with a perforation therein, said perforations registering in each pair of supports, said supports adapted to support a runner or a plurality of rollers, means to support the runner comprising lugs, one of each formed integral with the inner faces of one of said supports, and T-shaped uprights provided upon said runner, said T-shaped uprights received by the space between the lugs and the under face of said base and a member adapted to engage the perforations.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES F. W. ZIPPEL.

Witnesses:

JOHN OLTMAUM,
M. E. F. KURBAD.