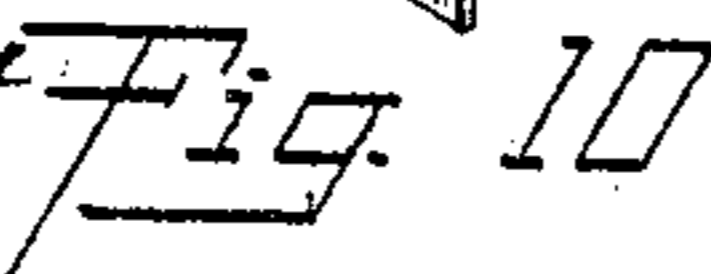


No. 876,245.

PATENTED JAN. 7, 1908.

T. SPACIE.  
COMBINED ROLLER AND ICE SKATE.

APPLICATION FILED AUG. 16, 1907.



# UNITED STATES PATENT OFFICE.

THOMAS SPACIE, OF CHICAGO, ILLINOIS.

## COMBINED ROLLER AND ICE SKATE.

No. 876,245.

Specification of Letters Patent.

Patented Jan. 7, 1908.

Application filed August 15, 1907. Serial No. 388,599.

*To all whom it may concern:*

Be it known that I, THOMAS SPACIE, citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Combined Roller and Ice Skate, of which the following is a full, clear, and exact description.

This invention is an improvement in skates, relating more especially to skates in which the foot plate may be detachably connected with either rollers or runners, whereby either roller or ice skates may be provided on a single set of foot plates.

The invention has in view to generally improve skates of this character, particularly in the manner of connecting the rollers or runners to the foot plate in order that the interchange thereof may be easily accomplished, also to so construct the foot plate that it may be attached to runners of varying lengths, thus requiring fewer sizes of foot plates than have been formerly necessary for the numerous sizes of runners.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the skate constructed in accordance with my invention, when runners are used; Fig. 2 is a sectional view of the same, the runners being displaced and rollers substituted in the place thereof; Fig. 3 is a plan of the foot plate, showing in dotted outline the form of the blank before it is shaped; Fig. 4 is a perspective view of one of the tongues of the foot plate, illustrating the manner in which it is reinforced; Fig. 5 is a sectional view through one of the roller skate attachments; Fig. 6 is a side view of a supporting plate carried by the rollers; Fig. 7 is a fragmentary view of the rear end of the ice skate shown in Fig. 1, on an enlarged scale, the foot plate being shown in section; Fig. 8 is an edge view of the runner and supporting plate of the ice skate; Fig. 9 is a fragmentary inverted plan of the foot plate, illustrating the means for locking the supporting plates thereto; Fig. 10 is a perspective view of a retaining plate used in connection with the roller attachments, and Fig. 11 is a perspective view of a reinforcing plate employed.

The foot plate 1 of my improved combined roller and ice skate, as constructed, is provided with downwardly-turned tongues 2 and 2<sup>a</sup> located, respectively, some distance from the extreme forward end of the foot plate and at the heel end thereof, both tongues being integral with the foot plate, the forward tongue 2 being made from the metal cut from an opening 3. Each tongue is preferably reinforced by a like piece of metal 4 riveted or otherwise secured thereto and provided with a slot registering with a similar slot formed in the tongue. The slot in the reinforcement, however, differs from that in the tongue in that the slot in the former is cut entirely through its end as indicated in Fig. 4. At each side of the heel end of the foot plate, the edges thereof are downwardly-turned, as is also the forward tip of the plate, the latter being provided with a central notch 5.

Adjacent to the tongues 2 and 2<sup>a</sup>, slots 6 are cut through the foot plate and a tongue 7 is stamped therefrom intermediate the slots, the same being rearwardly directed and adapted to engage with the front edge of the heel when the plate is secured to the shoe, rivet-holes 8 being formed in the plate for this last-named purpose. Adjacent to each slot 6 of the under face of the foot plate 1 is eccentrically pivoted a notched button 9 which is designed to lock the supporting plates of the runners or rollers to the foot plate in the manner hereinafter referred to.

Any desired form of runner may be used in connection with the foot plate described, the runner 10 shown being constructed with a forwardly-curved end 11. Attached to the runner 10 at points suitable to make connection with the foot plate 1, are supporting plates 12 which are of identical construction but reversely turned, each being composed of a double thickness of metal, one thickness passing to and embracing each side of the runner, where it is riveted, as clearly shown in Fig. 8, the upper portion of said thicknesses of metal forming the plate 12 being brought into close contact and riveted. The top edge of each plate 12 is of stepped formation with the highest projection 13 arranged at the inner corner of the plate and constructed with a notch 14 at the side edge. The outer corner of said stepped edges of the plates are extended to provide a lateral pro-

jection 15 which are adapted to enter the slots of the tongues 2 and 2<sup>a</sup> when the runner is applied to the foot plate 1. When the runner is so applied, the projections 13 pass into the slots 6 and the edge of the runner at its forward curved end 11 enters the notch 5 of the foot plate. The springy character of the tongues 2 and 2<sup>a</sup> when the supporting plates are forced to position, admits of them yielding sufficiently to be spread apart as the runner is connected and thereafter closely embrace the outer edges of the supporting plates as the projections 15 pass within the slots of the tongue. With the runners in this position, by revolving the eccentrically pivoted and notched buttons 9, the latter enter the notches 14 of the supporting plates and thus prevent the separation of the runners from the foot plate until a notch in each of the buttons 9 is brought into register with the slots 6.

The top portions of the supporting plates 12<sup>a</sup> which are used in connection with the roller attachments, as shown in Figs. 2, 5 and 6, are of the same construction as the plates 12 just described. They are also composed of a double thickness of metal which is riveted or otherwise closely connected together at the upper portion of the plate, the thicknesses of said metal being spread apart at their lower ends to provide spaced ears 16 which have oblong alining openings or slots 17. Between the ears 16 is placed a rubber spring 18 which is confined to the top thereof and presses the spindle 19 of the rollers to the bottom of the slot 17, by a plate 21 shown in detail in Fig. 10, said plate being constructed with flanges 22 at opposite sides, having notches for engaging the spindle 19, and with reversely-turned flanges 23 at the opposite ends for engaging the ends of the rubber spring 18. By this construction the supporting plate 12<sup>a</sup> is held securely against longitudinal movement or revolution on the spindle 19, but is permitted to have a slight oscillation from side to side, which is both desirable and essential in a roller skate. The connection of the roller attachments to the foot plate is carried out in substantially the same manner as is the application of the runners.

It is apparent that the construction of the foot plate 1 admits of the application of the runners thereto of varying lengths, thus requiring fewer sizes of foot plates than have formerly been necessary for the numerous sizes of runners.

The invention as described, although being the preferred practical embodiment of my improved combination skate, is obviously susceptible of numerous modifications falling within the scope of the annexed claims.

Having thus described my invention I

claim as new and desire to secure by Letters Patent:

1. In a skate, a foot plate having slots passing therethrough, a downwardly-turned slotted tongue formed on the foot plate adjacent to each slot, supporting means carrying supporting plates having projections adapted to enter the slots of the foot plate and tongues, and an eccentrically pivoted and notched button for engaging said projections entering the slots of the foot plate.

2. In a roller skate, a supporting plate having a fork comprising slotted ears through which the axis of the rollers pass, and an elastic material located in the fork of the plate normally forcing said axis to one end of the slots.

3. In a skate, a foot plate having slots passing therethrough, a downwardly-turned slotted tongue carried by the foot plate adjacent to each slot, and supporting plates each composed of a double thickness of metal having projections adapted to engage with the slots in both the plate and tongues.

4. In a skate, a foot plate, supporting plates each composed of a double thickness of metal having their upper portions secured flat together and provided with projections with the lower portions of said thicknesses of metal spread apart for connecting the plates with a supporting means, and downwardly-turned slotted tongues carried by the foot plate adapted to engage the projections of said supporting plates when the supporting plates are applied to the foot plate.

5. In a skate, a foot plate having slots passing therethrough, a downwardly-turned slotted tongue formed integral with the foot plate adjacent to each slot, and supporting means having supporting plates attached thereto, each plate being composed of a double thickness of metal with the flat faces at the upper portions thereof being secured directly together and provided with projections adapted to engage with the slots in the tongues and foot plate.

6. In a skate, a foot plate having slots passing therethrough, a downwardly-turned slotted tongue formed integral with the foot plate adjacent to each slot, supporting means having supporting plates attached thereto, each plate being composed of a double thickness of metal with the flat faces at the upper portions thereof being secured directly together and provided with projections adapted to engage with the slots of the tongues and foot plate, and a button pivoted adjacent to each of said slots in the foot plate adapted to engage and lock the supporting plates thereto.

7. In a skate, a foot plate having slots passing therethrough, downwardly-turned slotted tongues carried by the foot plate ad-

5 jacent to each slot, and supporting means carrying supporting plates each comprising a double thickness of metal with the lower portions of said thicknesses of metal embracing the supporting means at each side of its longitudinal center and with the upper portions of said thicknesses of metal forming each supporting plate being secured in contact, and formed with a stepped upper edge

providing projections adapted to engage with 10 the slots in the foot plate and the tongues.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS SPACIE.

Witnesses:

C. G. LILLIBRIDGE,  
ROY M. LEE.