

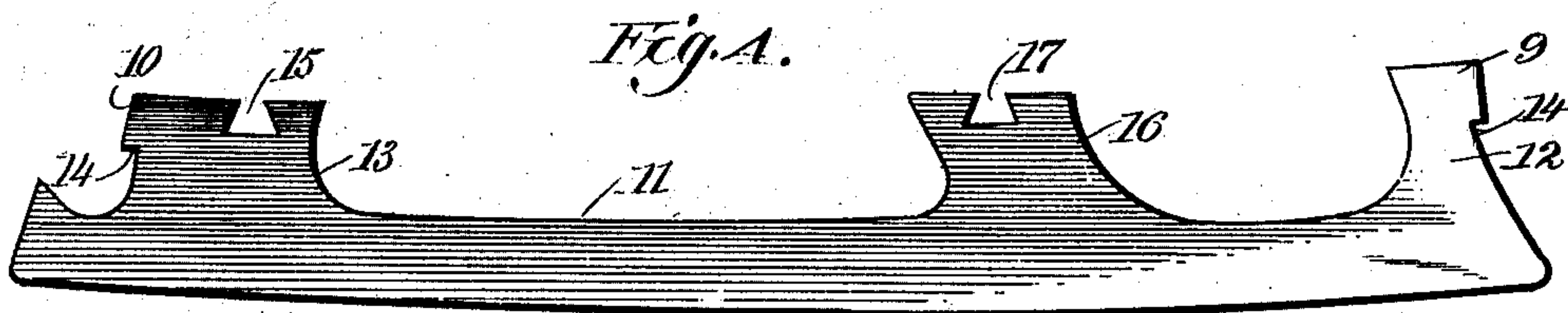
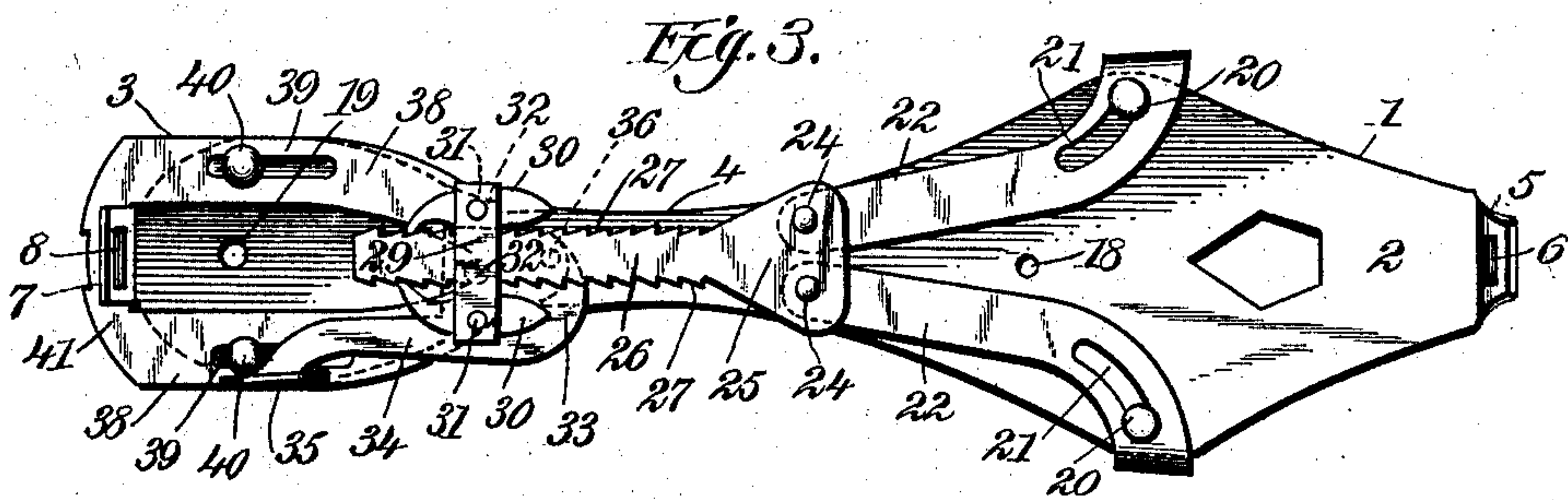
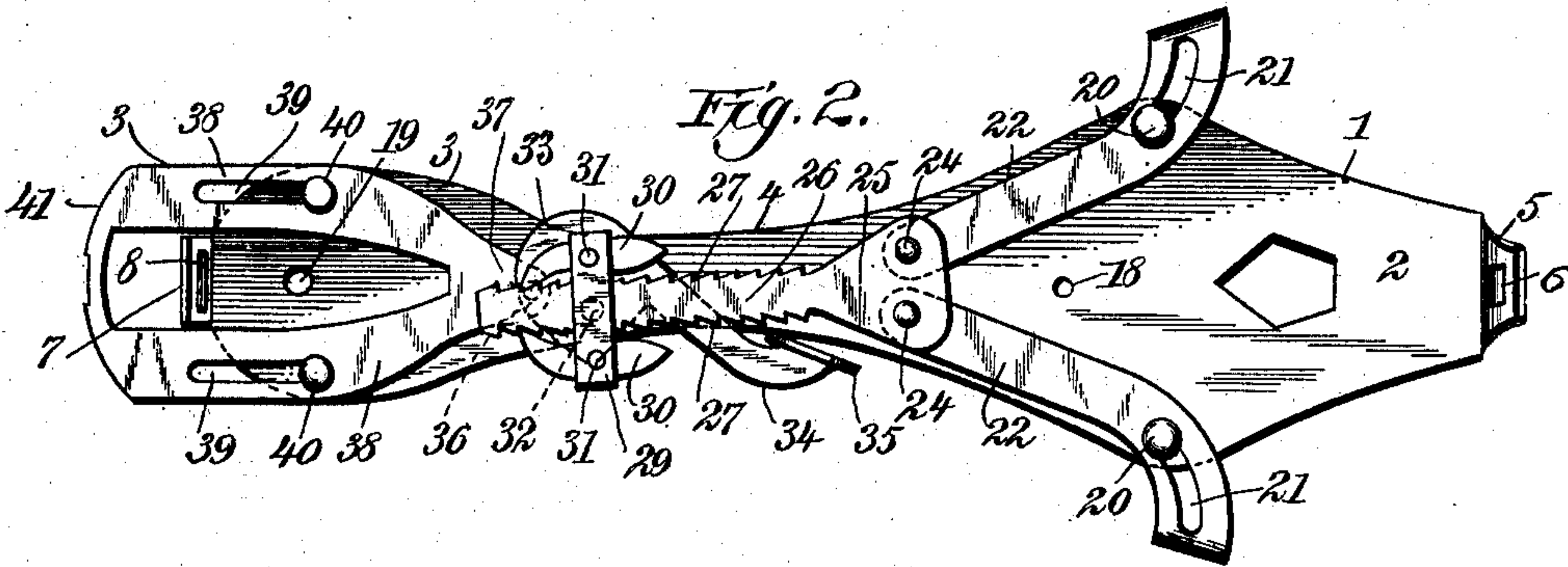
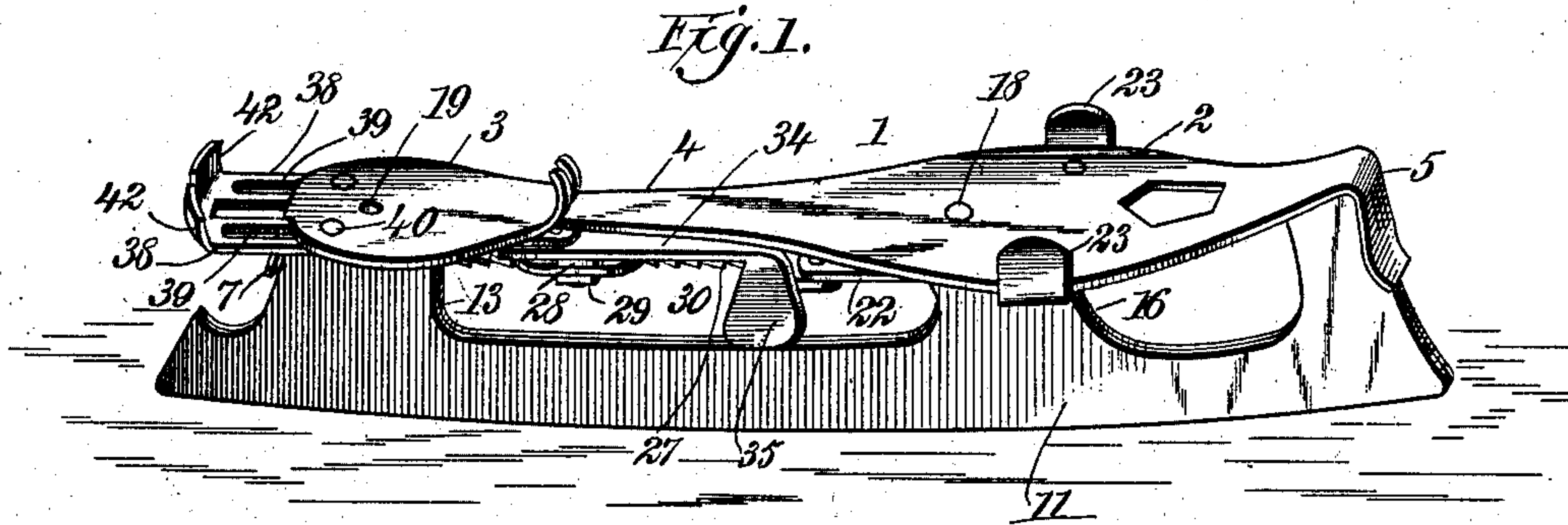
No. 757,240.

PATENTED APR. 12, 1904.

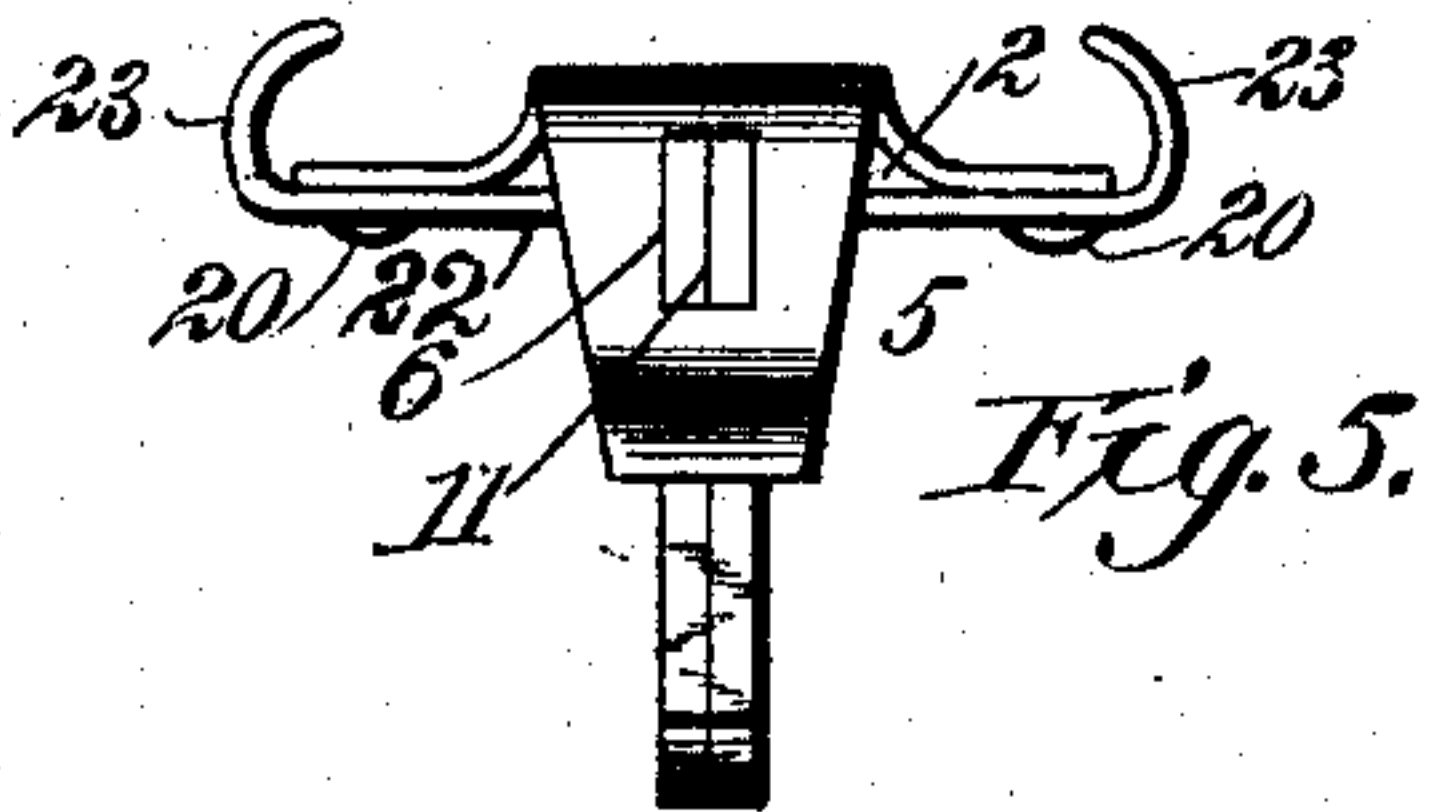
T. SPACIE.  
SKATE.

APPLICATION FILED JUNE 23, 1903.

NO MODEL.



WITNESSES:  
Paul Hunter  
E. E. Ellis



INVENTOR  
Thomas Spacie  
BY MUMFORD  
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# UNITED STATES PATENT OFFICE.

THOMAS SPACIE, OF GLOBE, ARIZONA TERRITORY.

## SKATE.

SPECIFICATION forming part of Letters Patent No. 757,240, dated April 12, 1904.

Application filed June 23, 1903. Serial No. 162,771. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS SPACIE, a citizen of the United States, and a resident of Globe, in the county of Gila and Territory of Arizona, have invented a new and Improved Skate, of which the following is a full, clear, and exact description.

This invention relates to skates; and it consists, substantially, in certain parts and details and combinations thereof hereinafter particularly described and claimed.

My improvements are intended more especially for use in connection with ice or "runner" skates, though applicable in part to the ordinary "parlor" or roller type; and one of the principal objects of my invention is to provide a skate with effective and reliably-operating devices for enabling the same to be readily fitted to the soles and heels of shoes of different sizes and again detached therefrom and also to provide devices of the character referred to which are simple in the construction and organization thereof, besides not being liable to easy breakage or dislocation and possessing the capacity for long and repeated service.

A further object of the invention is to provide an increased bearing or gliding surface for the skate and also to provide simple and effective means for detachably connecting the runner or blade of the skate to the foot-plate thereof, whereby the sharpening of the runner may be more easily performed than if constituting a fixed part of the skate.

The above and additional objects are attained by means substantially such as are illustrated in 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 view in perspective of a skate having my improvements embodied in connection therewith. Fig. 2 is a bottom plan view (minus the rubber or blade) showing the devices for attaching the skate to the sole and heel of a shoe in practically the outermost or

most widely separated positions thereof relatively to the foot-plate with which they cooperate. Fig. 3 is a similar view showing the devices for attaching the skate to the sole and heel of a shoe in practically the innermost positions to which the same may be adjusted relatively to the foot-plate. Fig. 4 is a side view, somewhat enlarged, of the double runner or blade of the skate; and Fig. 5 is a view of the skate looking at the same from the forward end thereof.

Before proceeding with a more detailed description it may be stated that in the form of my improvements herein shown I preferably provide the skate with a foot-plate of special construction, and coöperating therewith are devices for attaching the skate to the sole and heel of a shoe, these devices being also of special construction and organization, suitable means being employed by which the same are adjusted to fasten the skate to the soles and heels of shoes of different sizes. I preferably provide the runner of the skate of duplicate sections, and special means are also employed by which said runner or blade may be attached to or detached from the skate whenever desired.

While I have herein represented my improvements in a certain preferred embodiment, it will be understood, of course, that I am not limited to the precise details thereof in practice, since immaterial changes therein may be resorted to coming within the scope of my invention.

Specific reference being had to the accompanying drawings by the designating characters marked thereon, 1 represents the foot-plate of my improved skate, the same being preferably constructed of suitable metal and comprising the forward section 2 and the rearward or heel section 3, rigidly connected together or united by means of the integral intermediate section 4, as shown, the said foot-plate being formed at its forward end with an integral downward projection 5, having therein a slot 6, the edges or sides of which are pref-



erably rectangular, and at its rearward end this plate is formed with substantially a similar downward projection 7, having therein a slot 8, the edges or sides of which are also preferably rectangular, as shown. The said slots in the said projections are for the reception of substantially correspondingly shaped teeth 9 and 10, formed on the runner or blade 11 of the skate at the forward and rearward portions 12 and 13 thereof, respectively, said runner or blade preferably comprising duplicate sections, as shown, and being snapped into place beneath the foot-plate by inserting the said teeth thereof in the said slots, said sections being securely fastened in place by engagement between the edges 14 of said teeth and the lower edges of the slots. To disengage the runner-sections from the foot-plate, it is simply necessary to spring the said forward projection outwardly. Formed in the upper edge of said portion 13 of the runner is a bevel-sided notch 15, and formed in another upwardly-projecting portion 16 of said runner is a similar notch 17, these notches preferably being employed to register or come beneath corresponding openings 18 and 19 in the foot-plate, by which to enable the employment of headed screws (not shown) or other devices, if desired, to assist in maintaining the runner-sections in place relatively to the said foot-plate.

By the employment of a detachable runner or blade the same may be sharpened much more readily when removed than if it formed a rigid part of the foot-plate, as is well understood, and by forming said runner or blade in duplicate sections an increased bearing and gliding surface therefor is derived in the use of the skate upon the ice.

Fitted to the under surface of the foot-plate, near to the edges of the wider portion of the forward section 2 thereof, are pins or rivets 20, the heads of which project somewhat beyond such surface, said pins or rivets also passing through curved slots 21 in duplicate plates 22, located beneath the foot-plate and each having a curved clip 23, turned upwardly therefrom to engage with the corresponding portion of the sole of a shoe to which the skate may be applied, as will be understood. Pivoted to each of said duplicate slotted plates 22 at 24 is the forward and somewhat widened end 25 of a member 26, having ratchet-teeth 27 formed in the parallel longer edges thereof, said member being guided between duplicate plates 28 and 29, having pawls 30 loosely held between the ends thereof at 31, (see Figs. 2 and 3,) and pivoted at 32 (see dotted lines also, Figs. 2 and 3) to the uppermost one 28 of said duplicate plates is practically a crank portion 33 of a curved operating-lever 34, having

thumb-piece 35, said crank portion having substantially a wrist-pin connection at 36 (see dotted lines Figs. 2 and 3) with the inner or forward member 37 of a movable frame having duplicate branches 38, each of which is formed with a slot 39, through which passes a headed pin or rivet 40, fixed in the under surface of the rearward section 3 of the foot-plate, this frame thus being guided in its movements, as will be understood, and the connecting rear portion 41 thereof is formed with upturned clips 42 for engagement with adjacent parts of the heel of the shoe to which the skate may be applied in use. It is evident that by properly manipulating the said operating-lever the rearward ends of the pawls 30 may be made to engage the teeth 27 of the member 26 in such manner as to move the attaching plates and frame for the forward and rearward sections of the foot-plate, respectively, so as to properly engage with parts of the sole and heel of a shoe worn by the person using the skate.

It will be understood, of course, that the runners are reversible right and left and that by employing two runners double the edge surface is obtained over the ordinary skate.

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

1. A skate, comprising a flat foot-plate having its forward and rearward ends reduced in width to render them springy, said sections being bent downwardly in direction of each other, these downwardly-extending portions being provided with elongated slots, and a runner consisting of duplicate plates having similar projections at each end, said projections being equal in length to the length of said elongated slots, and the two projections together being equal in width to the width of said slots, to adapt the projections on the ends of the duplicate plates to entirely fill their respective slots in said bent-down portions of the plate when entered therein, the space between the projections at the forward end of the duplicate runners and at the rearward end thereof being slightly greater than the space between the two downwardly-bent springy ends of said foot-plate, whereby said ends may be sprung from each other to receive the duplicate runners between them with the projections at the ends of the runners received into said slots to rigidly hold the two members of a runner in flat engagement with each other upon a foot-plate with said runners clamped endwise between the downwardly-bent ends of the foot-plate.

2. A skate, comprising a foot-plate having a downward projection at its forward end and a similar projection at its rear end, each pro-



jection having an elongated vertical slot there-  
in, and a runner constructed of similar paral-  
lel members provided with vertical teeth at  
each end accurately fitting said vertical slots  
5 to hold the two sections of the runner upon  
the foot-plate and in flat engagement with  
each other, said runner having inverted trans-  
verse dovetailed grooves in its upper edge,  
and short screws threaded into the foot-plate  
10 with their heads extending downwardly and

received into said transverse grooves to form  
further means for securing the runner to the  
foot-plate.

In testimony whereof I have signed my name  
to this specification in the presence of two sub- 15  
scribing witnesses.

THOMAS SPACIE.

Witnesses:

H. C. HITCHCOCK,  
E. WILKINS.