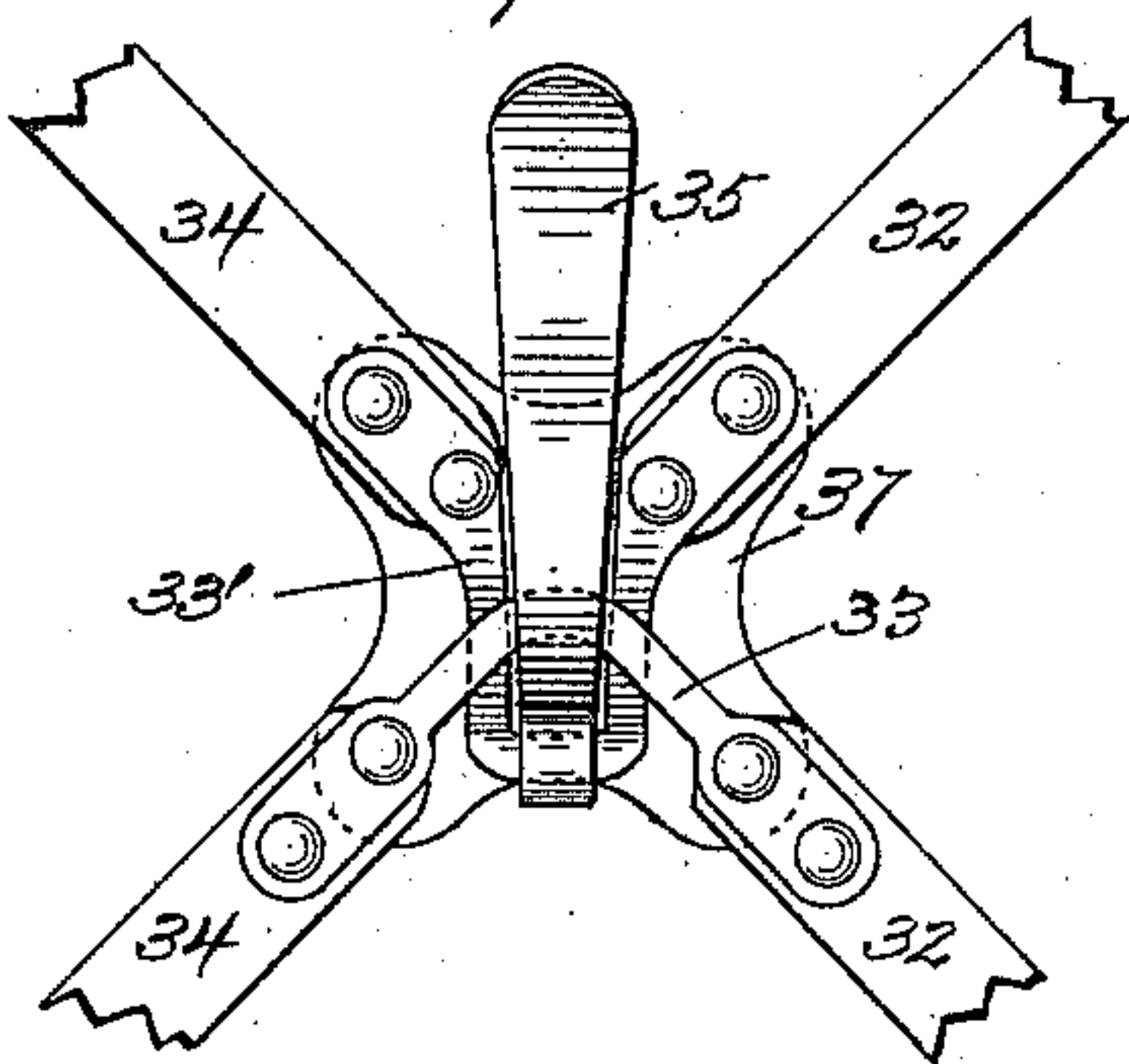
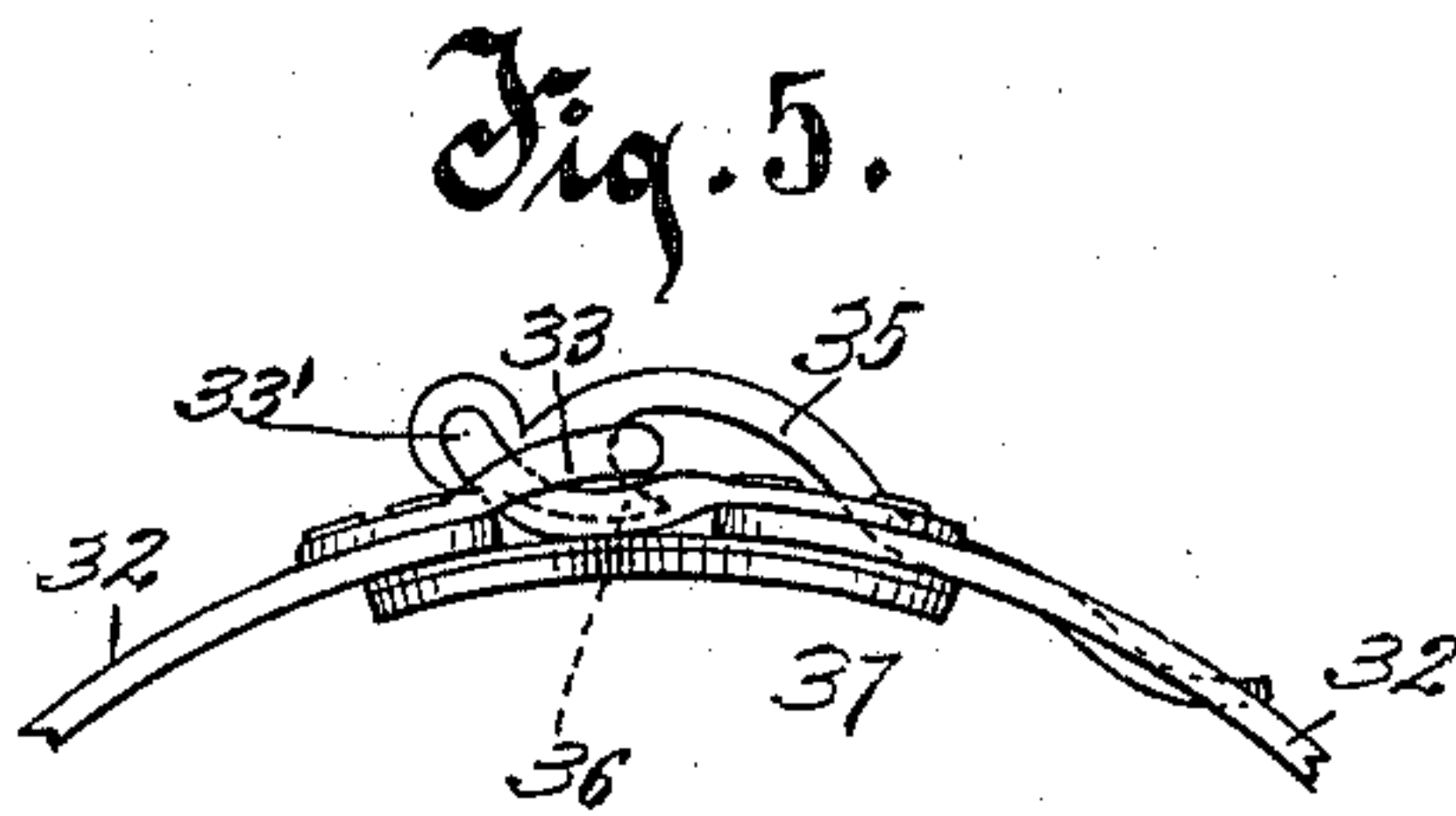
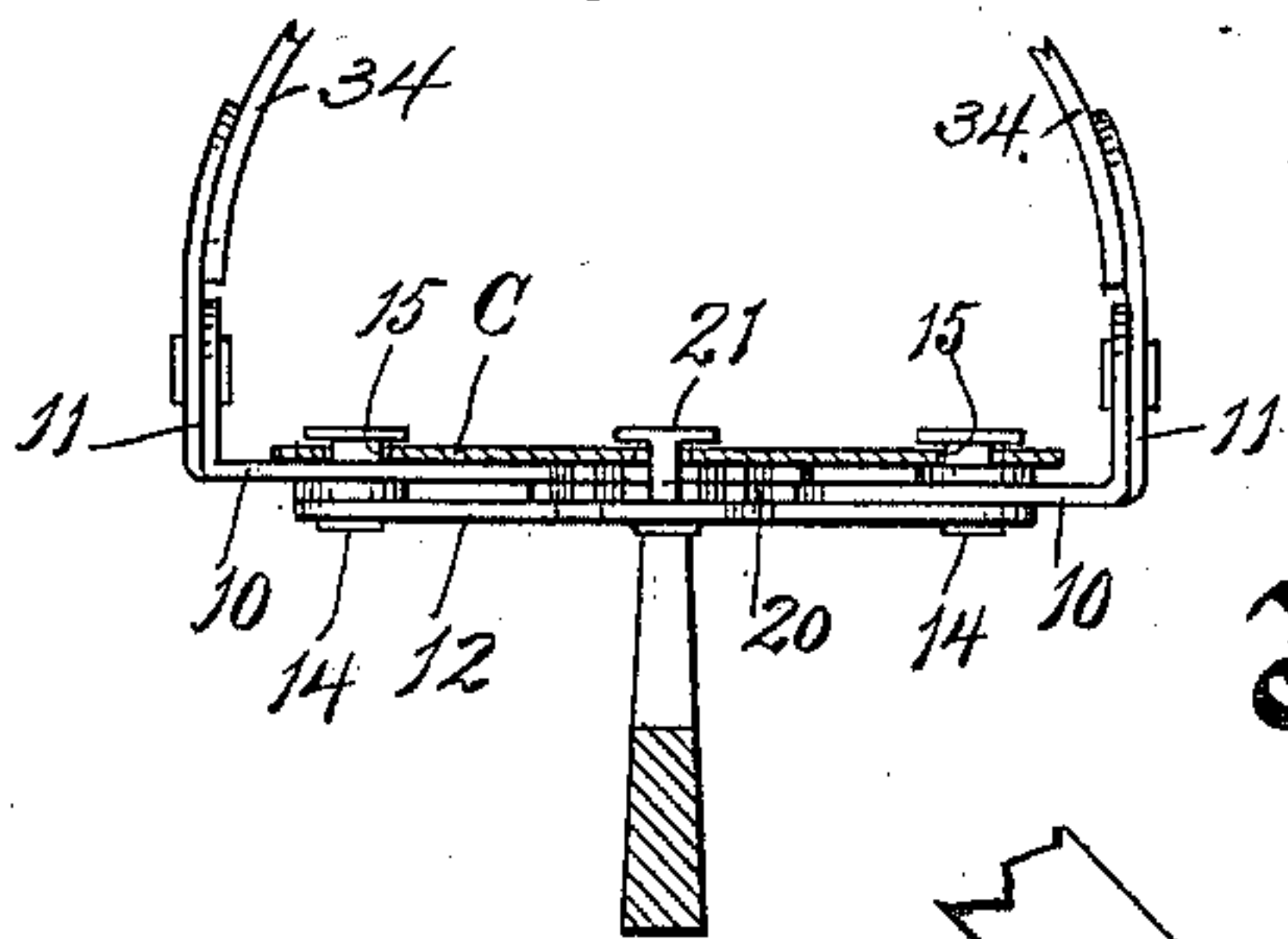
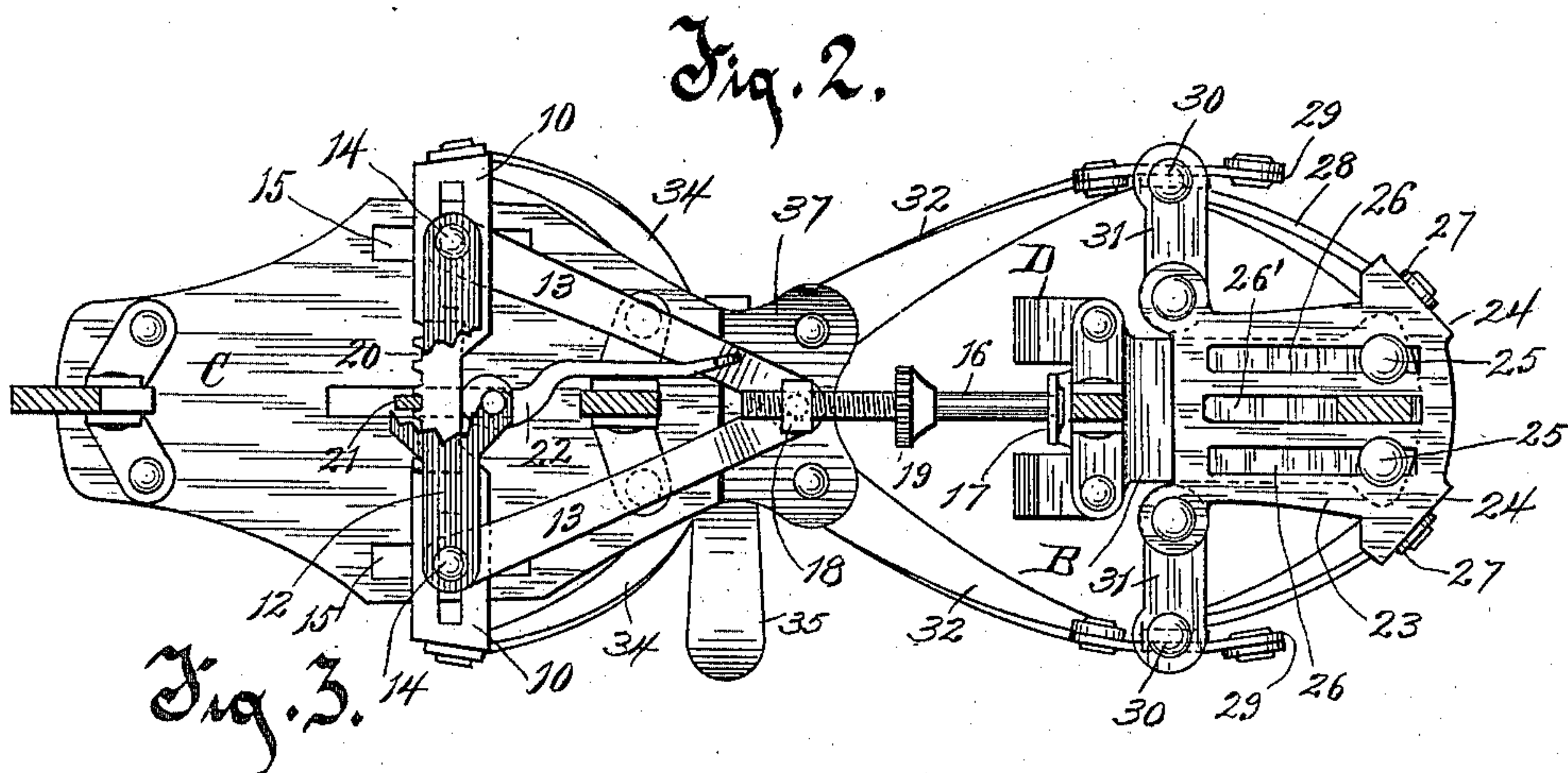
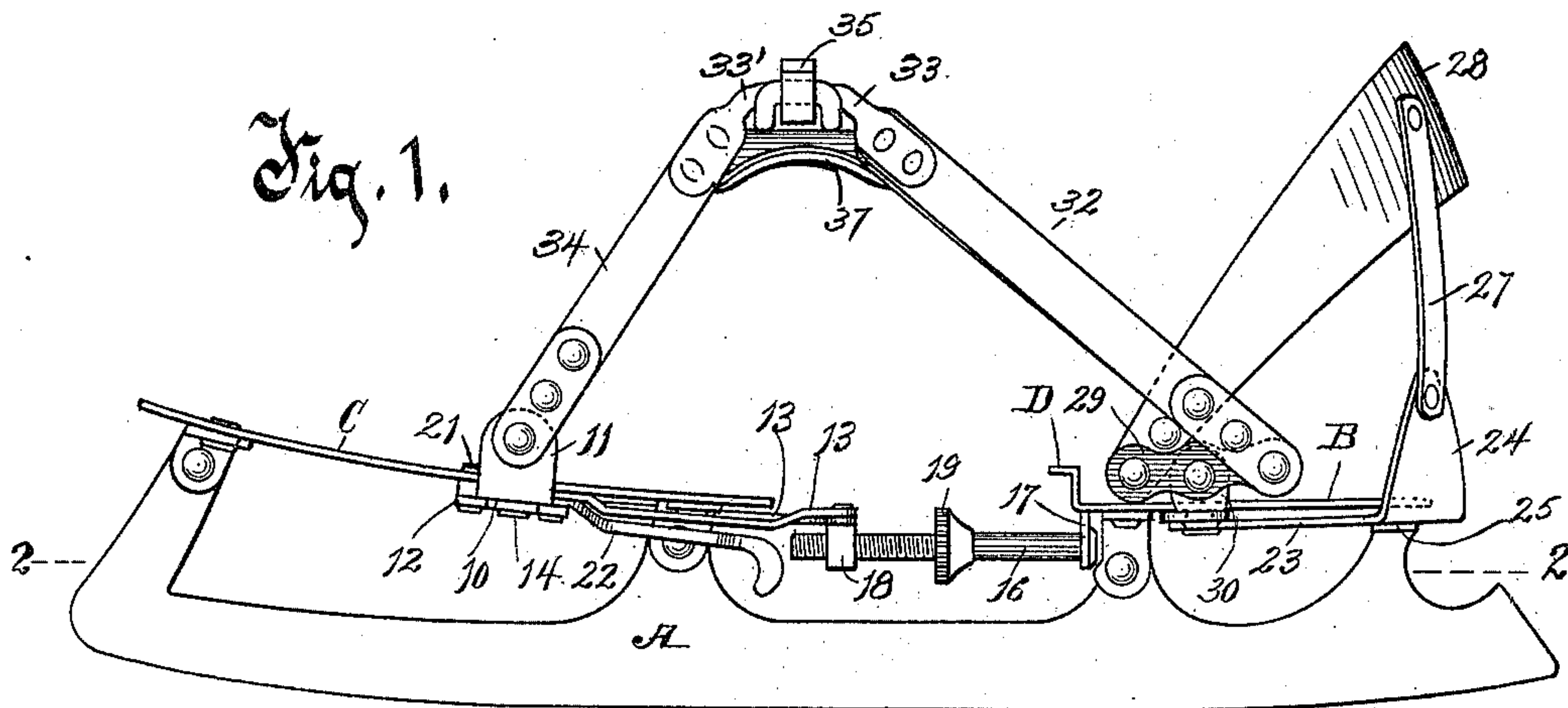


(No Model.)

C. DUMKE.
SKATE.

No. 600,908.

Patented Mar. 22, 1898.



Witnesses.

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UNITED STATES PATENT OFFICE.

CHARLES DUMKE, OF WATERLOO, WISCONSIN.

SKATE.

SPECIFICATION forming part of Letters Patent No. 600,908, dated March 22, 1898.

Application filed August 5, 1897. Serial No. 647,152. (No model.)

To all whom it may concern:

Be it known that I, CHARLES DUMKE, of Waterloo, in the county of Jefferson and State of Wisconsin, have invented a new and useful Improvement in Skates, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention relates chiefly to improved means for fastening a skate to the foot of the user.

The invention consists of the devices and combination of devices, as hereinafter described and claimed, or their equivalents.

In the drawings, Figure 1 is a side elevation of a skate with my improved means for fastening it to the footwear of the user. Fig. 2 is an under side view, on line 2 2 of Fig. 1, of the improved construction, looking upwardly, a part being broken away to exhibit other features of the construction. Fig. 3 is a transverse section of the skate and my improved devices therewith. Fig. 4 is a top plan view of the strap-buckle. Fig. 5 is a side elevation of the same strap-buckle in the form it assumes when locked.

My improved means for fastening a skate to the footwear of the user is so adjustable as to adapt it for securing a skate to a boot, shoe, or overshoe, and is capable of such adjustment as to adapt it to secure the skate to a large or small foot or footwear, as desired.

In the drawings, A indicates a skate-iron. This skate-iron is provided with a permanently-attached heel-plate B and a permanently-attached foot or toe plate C. The heel-plate B may have an upwardly-turned flange D at its front edge adapted to receive the forward thrust of the heel on the boot or shoe of the wearer against it.

An adjustable foot guard and strap attachment formed in two parts 10 10 is constructed of two pieces of strap iron or steel, the inner ends of which overlap each other beneath the foot-plate C and extend transversely of that plate beyond the edges thereof and are severally turned up, forming contact members 11 11, adapted to bear laterally against the edges of a boot or shoe, and also serving as means for the attachment of fastening-straps. These guards 10 10 are mounted movable laterally in an auxiliary frame on the under side

of the plate C, which plate may consist of the transverse bar 12 and the straps 13 13, which straps are connected to the outer ends of the bar 12 severally by a flat-headed pin 14, which pins are permanently secured in the bar 12 and in the straps 13, passing through the interposed guards 10 10, which are provided with elongated slots therefor, adapting the guards to be moved laterally freely past the pins while being held in place and guided thereby. The pins 14 also pass loosely through elongated slots 15 15 in the plate C, whereby a movement of the auxiliary frame toward front and rear of the skate is permitted and a lateral movement of the auxiliary frame is prevented.

For adjusting the auxiliary frame and the guards 10, mounted therein, toward the front or rear I provide a screw-threaded rod 16, which rod is provided with a head and is pivoted or journaled revolvably at the head end in a hanger 17, depending from the heel-plate B, the rod 16 being so mounted at that end as to bear endwise against a permanent part of the skate, and near its other end its screw-thread turns into a nut 18, fixed to the straps 13 13, the nut 18 being conveniently formed with a pin or rivet that extends through the converging and overlapping ends of the straps 13 and is upset or riveted thereto, thus securing the straps together and the nut thereto. The rod 16 is provided with an annular milled boss or collar 19, adapted for rotating it conveniently by hand. It will be understood that by this construction the auxiliary frame can be readily pushed toward the front or withdrawn toward the rear of the skate, as desired, the result of which is to enable the user thereby either to lengthen or shorten the distance between the points of attachment of the straps and thereby to correspondingly bring them closer to or give them more length transversely of or about the foot, as desired.

As before stated, the members 10 of the foot-guard are movable and thus adjustable laterally. For locking these two members in position when thus adjusted they are both formed with a series of recesses 20 20 in their front edges, the recesses being formed to register with each other and to take onto a post 21, fixed in the bar 12 and projecting up-

wardly therefrom through the plate C in an elongated slot extending toward the front and rear, in which slot the post moves freely. The post 21 may also be provided with a flat head above the plate C. For locking the members of the guard 10 in contact with and against the post 21 a locking cam-lever 22 is pivoted eccentrically on a pin fixed in the bar 12 at the rear of the members 10 of the guard opposite the post 21, which locking-lever is adapted, by swinging it rearwardly in the position shown in Fig. 2, to force the members 10 of the guard against the post 21 in recesses, whereby the members of the guard are locked against lateral movement. By swinging the lever 22 around to the left the guard members 10 are so far released from the post 21 as to be capable of being moved laterally past the post to such other positions within the limit of the length of the slots therein through which pins 14 pass as may be desired. This adjustment adapts the skate-fastening for application to a narrow or wide boot, as desired.

A heel-guard plate 23 beneath the heel-plate B is provided with upturned heel-guards 24, which heel-guards are adapted to bear against the heel of the boot or shoe at its sides and rear. This heel-plate 23 is movable and thereby adjustable on the heel-plate B, being secured thereto by headed pins 25 25, that pass through elongated axially-disposed slots 26 26 therefor in the guard-plate and are fixed in the heel-plate B. A slot 26', parallel with the slots 26, receives therein an upwardly-projecting part of the skate-iron, to which the heel-plate B is fixed, and permits the guard-plate 23 to slide past that fixed part. The adjustment of the guard-plate 23 toward the front and rear permits the proper disposition and adjustment of the guards 24 with reference to a longer or shorter boot or shoe.

To the guards 24 are pivoted upwardly-extending and preferably elastic fingers 27, to which fingers, at their upper extremities, a heel-strap 28 is secured medially conveniently by pins or rivets. This heel-strap 28 extends forwardly and downwardly from the fingers 27 to the front extremities of two levers 29 29, pivoted medially on posts 30 30, swiveled on the extremities of laterally-projecting arms 31 31, pivoted at their inner ends on the heel-guard plate 23 near its front end. The heel-strap 28 is adapted to pass around the heel of the boot or shoe of the wearer and extends forwardly therefrom on the respective sides thereof. In connection with the heel-strap 28 and the parts directly allied thereto for holding the heel-strap up to its work and at the same time securing the forward part of the skate to the foot of the wearer other straps are employed, one at each side, that extend medially up to and are clasped together over the instep, which straps severally consist of the leather strip 32, fastened at its rear end to the rear end of the lever 29 and extends forwardly and upwardly therefrom, and at its

front end is connected by a metal bail 33 to the upper end of the foot-strap 34, which extends therefrom forwardly and downwardly and is connected at its lower forward end to the ear or contact member 11 of the foot-guard 10. One of said strap-uniting bails (33') is made of such form as to pass under and up through within the curve or bend of the other bail and a swinging clamping and locking lever 35 is pivoted thereon, said locking-lever being provided with a hook 36, eccentric to the axis of the lever, adapted to take the other bail 33 therein, and by swinging the lever carrying it over the bail 33' and past the radial line or dead-center of its strain on the axis of the lever, so that when the lever is brought to its seat, as shown in Figs. 5 and 6, the two bails are automatically locked in position. A plate 37, secured to and beneath the bail 31', bears on its under side against the boot or shoe of the user, while its upper surface serves as a seat, against which the lever 35 contacts when brought into locking position.

It will be understood that the foot-guard 10, by means of the adjusting-rod 16, can be adjusted toward the front or rear, that the members of the guard 10 10 can be extended or withdrawn laterally by means hereinbefore described, and that the heel guard-plate 23 can be adjusted to the rear or toward the front, thereby providing for adapting the skate to be fastened to a larger or smaller foot, as desired, and also providing by similar adjustments for so extending or diminishing the distance between the attachments of the straps 32 and the straps 34 at their lower ends as to thereby diminish or increase their extent laterally or over the instep of the foot of the user, thus adapting the fastening devices for securing the skate to a larger or smaller foot or one having a higher or lower instep, as occasion requires.

What I claim as my invention is—

1. The combination, with a skate-iron and a foot-plate fixed thereon, of an auxiliary frame below the foot-plate, laterally-bearing guards mounted on the auxiliary frame and adjustable thereon at right angles to the length of the skate-iron, and means adapted to adjust the auxiliary frame toward the front and rear parallel with the skate-iron and independent of and without moving the guards laterally.

2. The combination with a skate-iron and a foot-plate fixed thereon, of an auxiliary frame below the foot-plate, laterally-bearing guards mounted movably in the auxiliary frame and adjustable thereon at right angles to the length of the skate-iron, means for adjusting the guards laterally, and other means adapted to adjust the auxiliary frame toward the front and rear parallel with the skate-iron and independent of and without moving the guards laterally.

3. In fastening devices for a skate, the combination of an auxiliary frame adjustable on

the foot-plate toward front and rear, laterally-moving strap-guards mounted in the auxiliary frame, said straps having recesses along their edges to take onto a post in the frame, and a
5 cam-lever pivoted in the frame adapted to bear against the straps and hold them in engagement with said post.

4. The combination, with a skate-iron and a heel-plate fixed thereon, of a heel-guard
10 plate provided with upturned heel-guards, said heel-guard plate being freely slidable on the permanent heel-plate, and means connected with instep-clamping devices for sliding the heel-plate.

15 5. The combination with a skate-iron, and a heel-guard having fingers projecting upwardly at a rear part thereof, of a heel-strap attached medially to said fingers their front ends being attached to the rear ends of tilt-
20 able levers mounted on the frame, side straps attached to the rear ends of said tiltable levers and at their front ends being attached to the skate-frame at a distance in front of the rear attachment, and means for clamping
25 the two side straps together over the instep of the user.

6. In skate-fastening devices, the combination, of a slidable heel-guard plate having
30 guards thereon, fingers projecting upwardly from the guards, a flexible strap attached medially to the fingers and at its front ends to tiltable levers mounted on said slidable guard-plate, and means for tilting the levers and thereby drawing said strap forwardly.

35 7. In skate-fastening devices, the combina-

tion of a slidable heel-guard plate having guards thereon, fingers projecting upwardly from the guards, a flexible strap attached medially to the fingers and at its front ends to
40 tiltable levers, swinging laterally-projecting arms pivoted on the slidable heel-guard plate, and means attached to the rear ends of said levers for tilting them and thereby drawing the heel-strap forwardly.

8. In skate-fastening devices, the combina-
45 tion of a slidable heel-guard plate having guards thereon, fingers projecting upwardly from the guards, a flexible strap attached medially to the fingers and at its front ends to
50 tiltable levers, said tiltable levers, posts swiveled in swinging arms in which posts said levers are pivoted, said swinging arms pivoted on the slidable heel-plate, and means for tilting said levers.

9. In skate-fastening devices, the combina-
55 tion with a skate-iron, of a heel-guard plate slidable rearwardly on the skate-frame, an auxiliary forwardly-adjustable frame at a distance in front of the heel-guard plate, side
60 straps one at each side connected severally to the slidable heel-plate and to the adjustable frame, and means for clamping the side straps to each other over the instep.

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

CHARLES DUMKE.

Witnesses:

JAS. D. RYDER,
FERD SCHULZ.