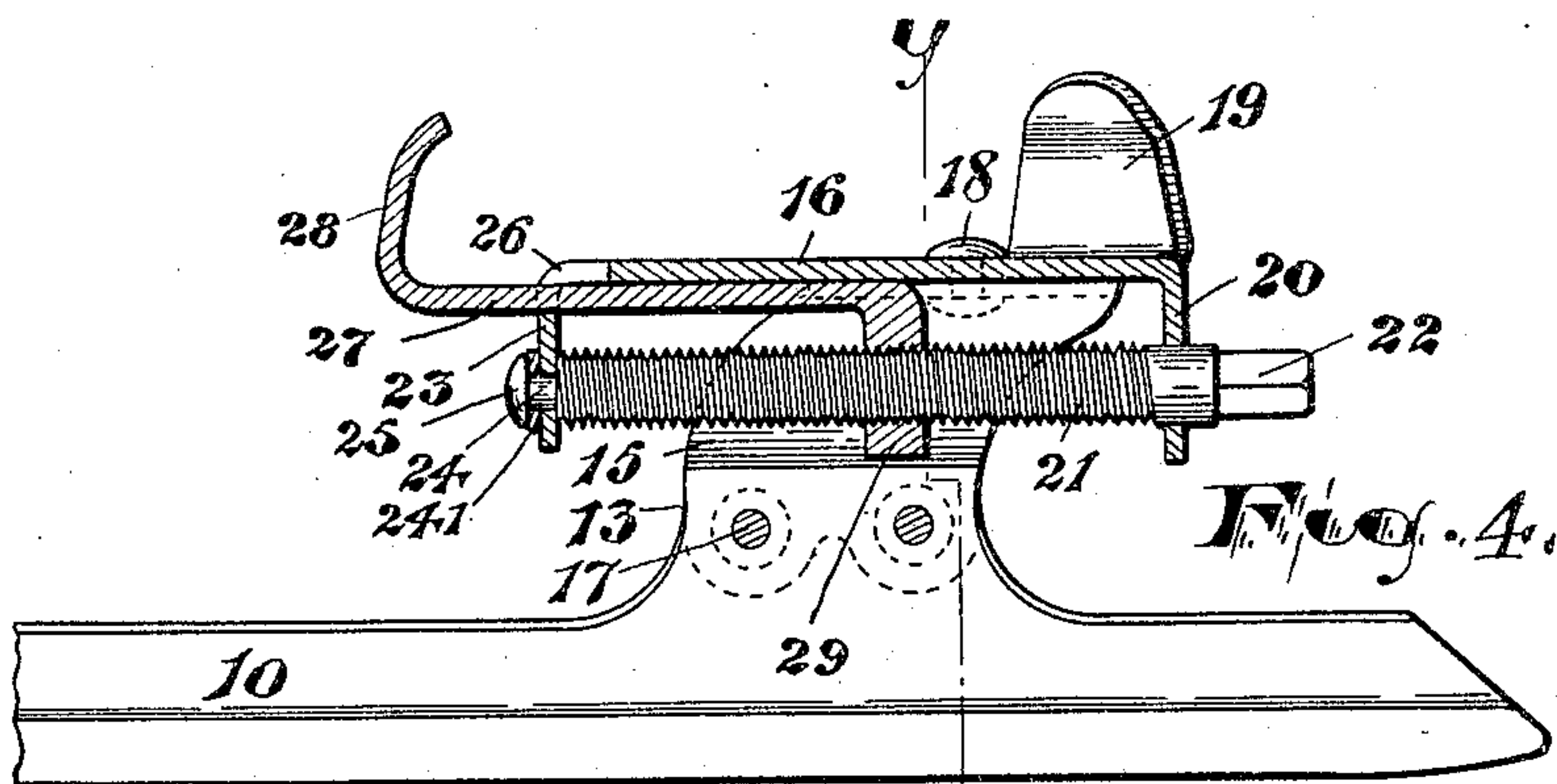
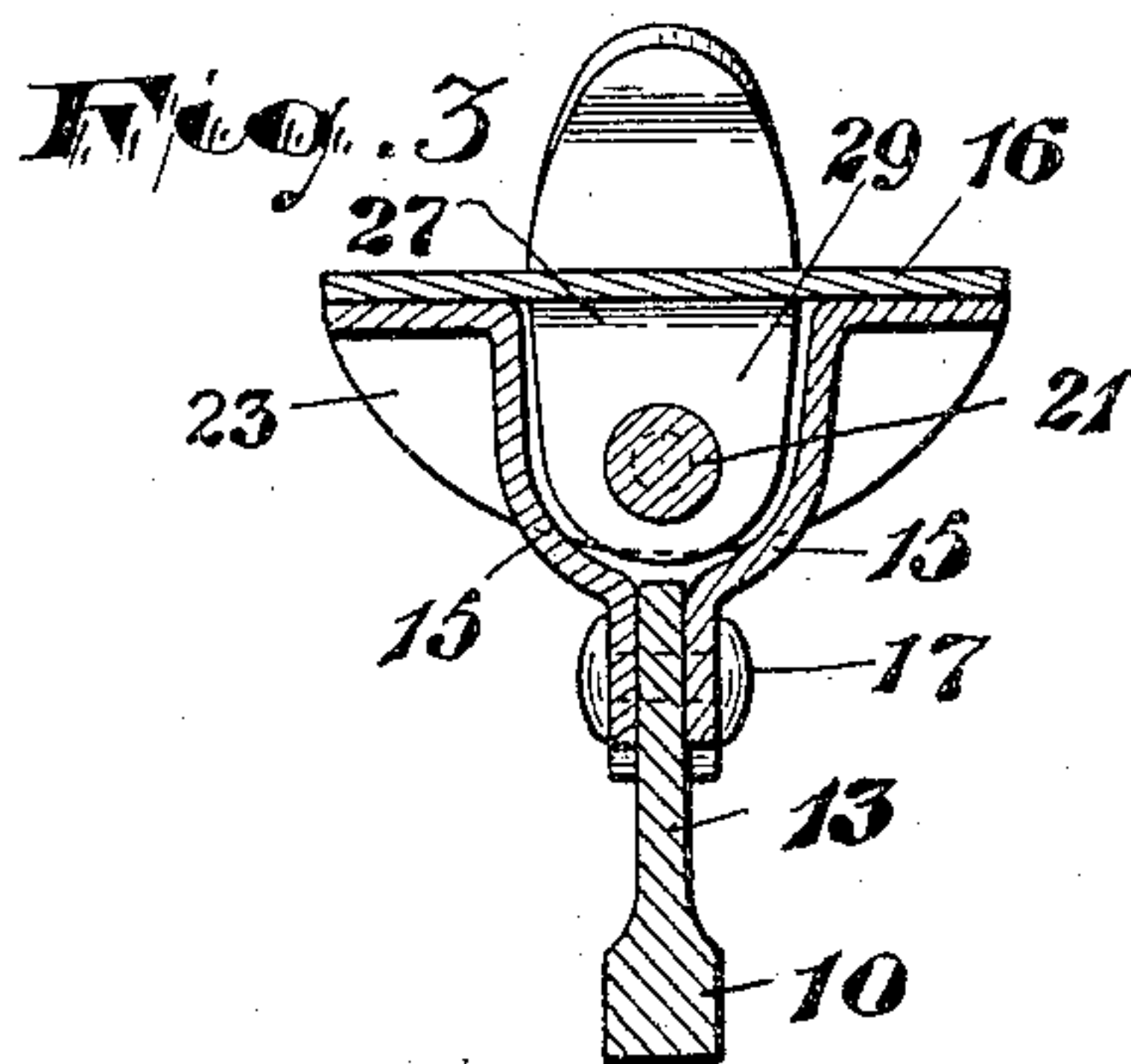
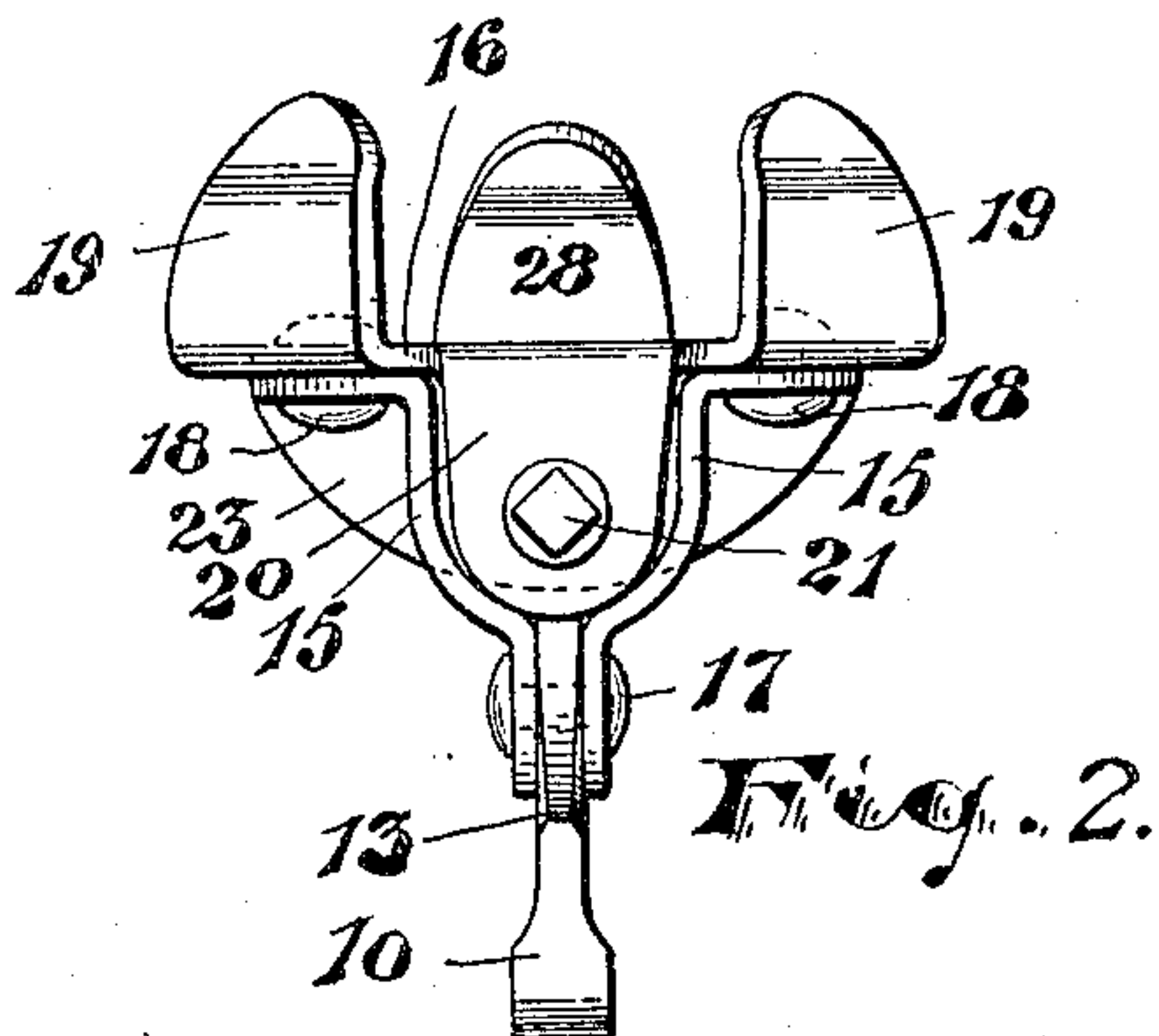
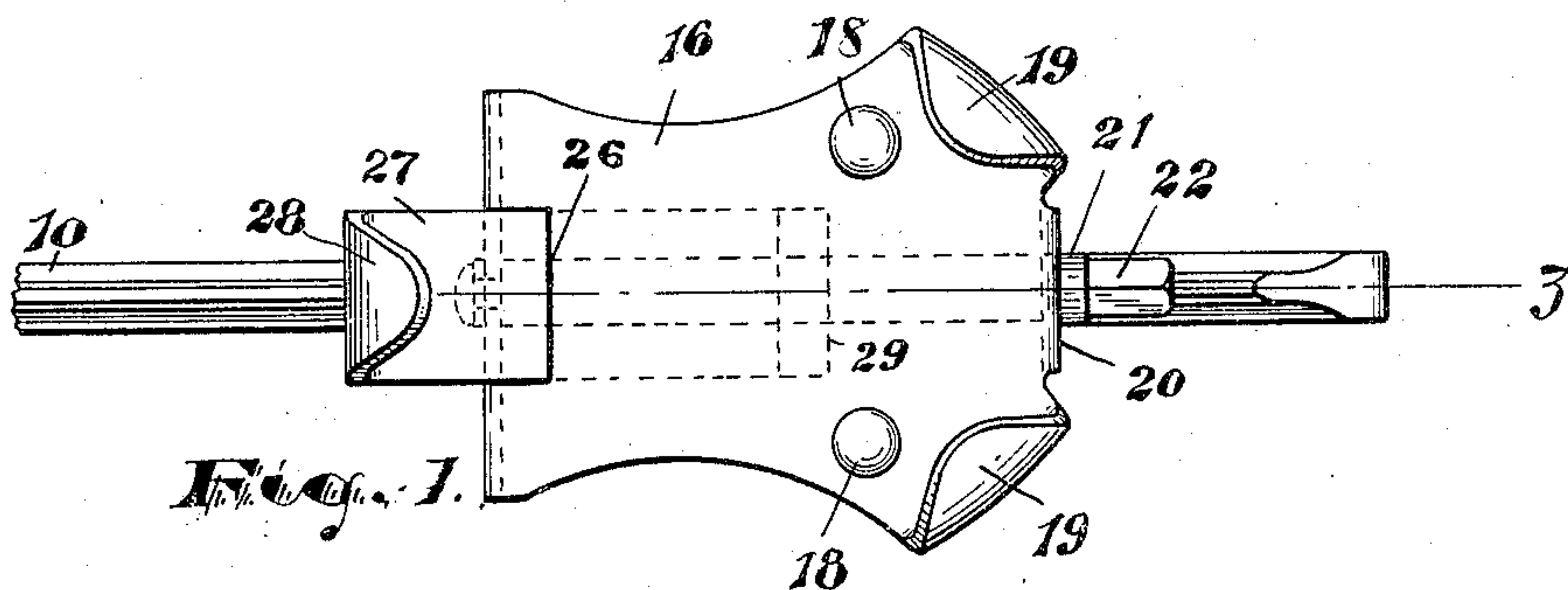


No. 789,165.

PATENTED MAY 9, 1905.

P. LOWENTRAUT.
HEEL CLAMP FOR SKATES.
APPLICATION FILED FEB. 26, 1904.



WITNESSES:

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PETER LOWENTRAUT, OF NEWARK, NEW JERSEY.

HEEL-CLAMP FOR SKATES.

SPECIFICATION forming part of Letters Patent No. 789,165, dated May 9, 1905.

Application filed February 26, 1904. Serial No. 195,441.

To all whom it may concern:

Be it known that I, PETER LOWENTRAUT, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Heel-Clamps for Skates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

The objects of this invention are to secure a stronger and more durable skate adapted to resist the various and severe strains brought thereon while skating, to reduce the cost of construction, and to secure other advantages and results, some of which may be referred to hereinafter in connection with the description of the working parts.

The invention consists in the improved heel-clamp for a skate and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like numerals of reference indicate corresponding parts in each of the several figures, Figure 1 is a plan of the rear portion of the skate. Fig. 2 is an end view of the same. Fig. 3 is a transverse section taken at line *y* of Fig. 4, and Fig. 4 is a section taken at line *z* of Fig. 1.

In said drawings, 10 indicates the runner, having the usual studs or posts formed, preferably, integral therewith, the post 13 being near the rear of said runner. Said post 13 provides bearings for brackets 15 15, upon which a heel-plate 16 is secured, the brackets being riveted to the post 13 by rivets 17 and a heel-plate being riveted to the brackets by means of rivets 18 in any suitable manner.

At the rearward part of the heel-plate 16 are upwardly-projecting and inwardly-turned lips or tangs 19 19, disposed at the opposite sides of said heel-plate, and at a point between said upwardly-projecting tangs is the downwardly-projecting integral bearing-tongue 20

for a screw-shaft 21, having an angular head 22 at its rearward extremity. The forward extremity of the said heel-plates 16 is bent downward, as at 23, to form a second integral bearing-tongue for the forward extremity of the screw-shaft. The said screw-shaft 21 at its forward extremity is provided with a reduced extension 24, Fig. 4, adapted to project through a small hole in the downwardly-extending bearing-tongue 23 and adapted to receive a washer 241 and be upset at the extremity 25 to form a head, by means of a hammer or otherwise, to hold said screw-shaft positively in its said bearings 23, and in permanent relation to the heel-plate.

At the angle formed by the horizontal body of the heel-plate 16 and the depending lip or tongue 23, at the front thereof, the said heel-plate is horizontally slotted, the upper part of the slot 26 lying horizontally in line with the horizontal body portion of the heel-plate and extending into said horizontal portion, as shown in Figs. 1 and 4, and the lower part of said slot being adapted to permit of the passage therethrough of the horizontal portion of a sliding clamping member 27, arranged on the under side of said body portion and projecting forwardly therefrom through said slot, as shown. The front end of said sliding clamp 27 is upwardly turned, as at 28, to form a lip to engage the front vertical surface of the heel, while the rear of said sliding clamp is bent downward and provides an integral bearing 29, which is threaded to receive the clamping-screw 21. The upper rearward extension of the slot 26 permits of the insertion of the upper lip 28 of bent clamping-plate 27 through said slot and permits a greater length of rearward horizontally-sliding movement of the same into holding contact with the heel. By turning the screw-shaft 21 in its forward and rearward bearings the sliding clamp 27 is given a positive forward and rearward movement into engagement with or disengagement from the heel.

Having thus described the invention, what I claim as new is—

1. The improved heel-clamp for skates, comprising a heel-plate having upwardly-projecting tangs 19, and downwardly-projecting in-

tegral tongues at the front and rear edges, the front tongue being horizontally slotted near its connection with the body of said heel-plate and having a perforation below the slot to receive a screw-shaft, a screw-shaft arranged in said tongues at its opposite ends and a sliding clamp arranged beneath said heel-plate and extending horizontally through said slot and having at one end an upwardly-projecting lip 28, to cooperate with the upwardly-projecting tangs to clamp the heel, and having a downwardly-turned threaded bearing arranged intermediate of the downwardly-projecting tongues through which said screw passes to effect a movement of the sliding clamp.

2. The improved heel-clamp for skates, comprising a heel-plate having upwardly-projecting tangs 19, and downwardly-projecting tongues at the front and rear edges, said tongues being perforated and providing bearings for a screw-shaft and the front tongue being slotted at the bend or angle of connection with the body of said heel-plate, above its perforation, a screw-shaft arranged near its opposite ends in said downwardly-projecting tongues, and a horizontally-sliding clamp having its body lying underneath the body of the heel-plate and extending underneath the body of the heel-plate and extending out through the said slot in the front tongue and having beneath

the heel-plate a downwardly-turned bearing which is threaded and engages the screw-shaft, and at its forward end having an upwardly-projecting lip to cooperate with the tangs in clamping the heel.

3. The improved heel-clamp for skates, comprising a heel-plate having upwardly-projecting tangs 19, and downwardly-projecting tongues at the front and rear edges, the front tongue being slotted at its connection with the body of the heel-plate and providing a bearing on which the horizontally-extending body of the clamp is supported, a screw-shaft arranged in said tongues at its opposite ends and a sliding clamp arranged underneath said heel-plate and projecting at its front end through said slot and having at said forward end an upwardly-projecting lip 28, to cooperate with the upwardly-projecting tang to clamp the heel, and having a downwardly-turned threaded bearing arranged intermediate of the downwardly-projecting tongues through which said screw passes to effect a movement of the sliding clamp.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of February, 1904.

PETER LOWENTRAUT.

Witnesses:

CHARLES H. PELL,
C. B. PITNEY.