

No. 890,826.

PATENTED JUNE 16, 1908.

J. E. ULSH.  
ICE CREEPER.  
APPLICATION FILED NOV. 30, 1907.

Fig. 1.

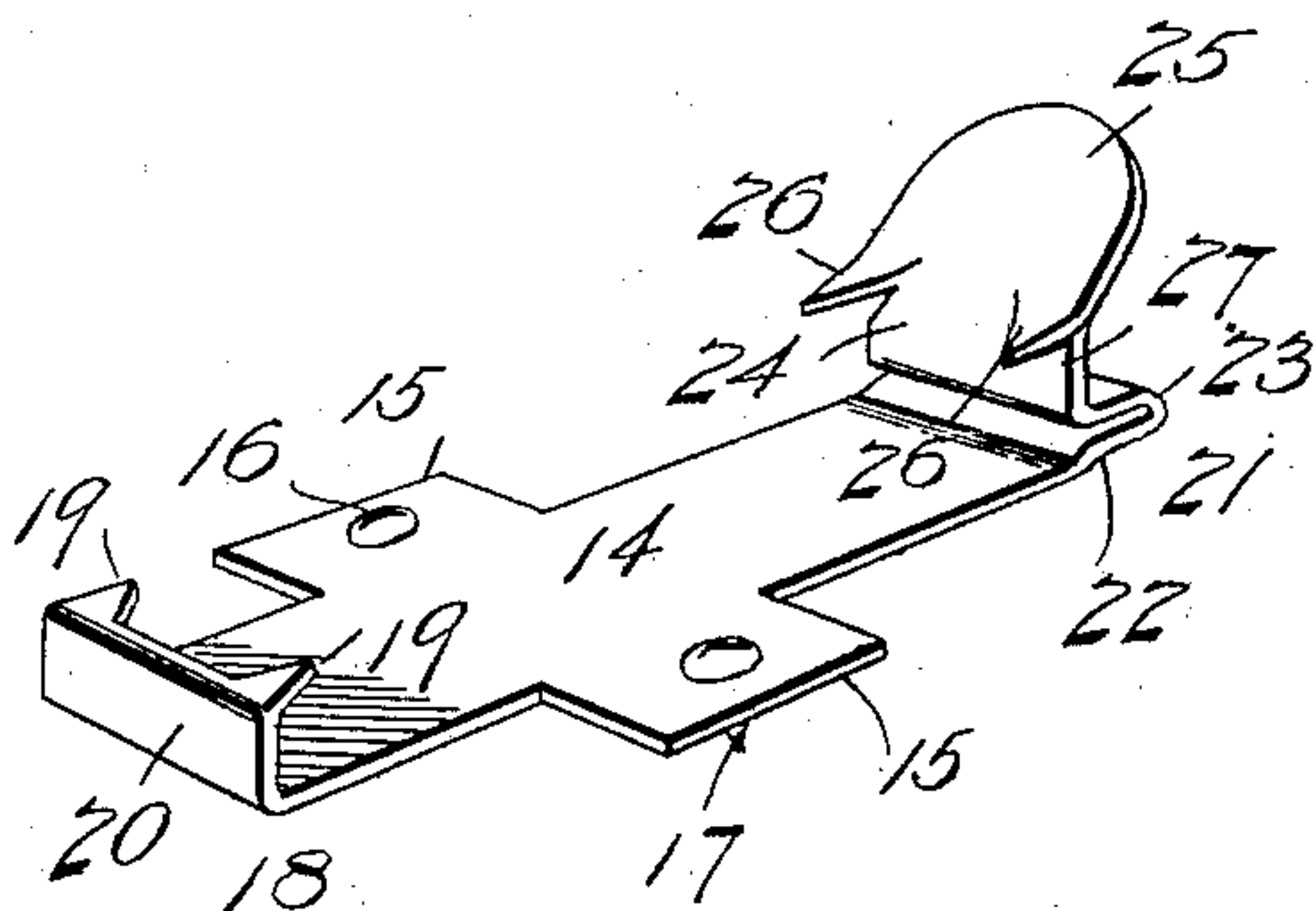


Fig. 2.

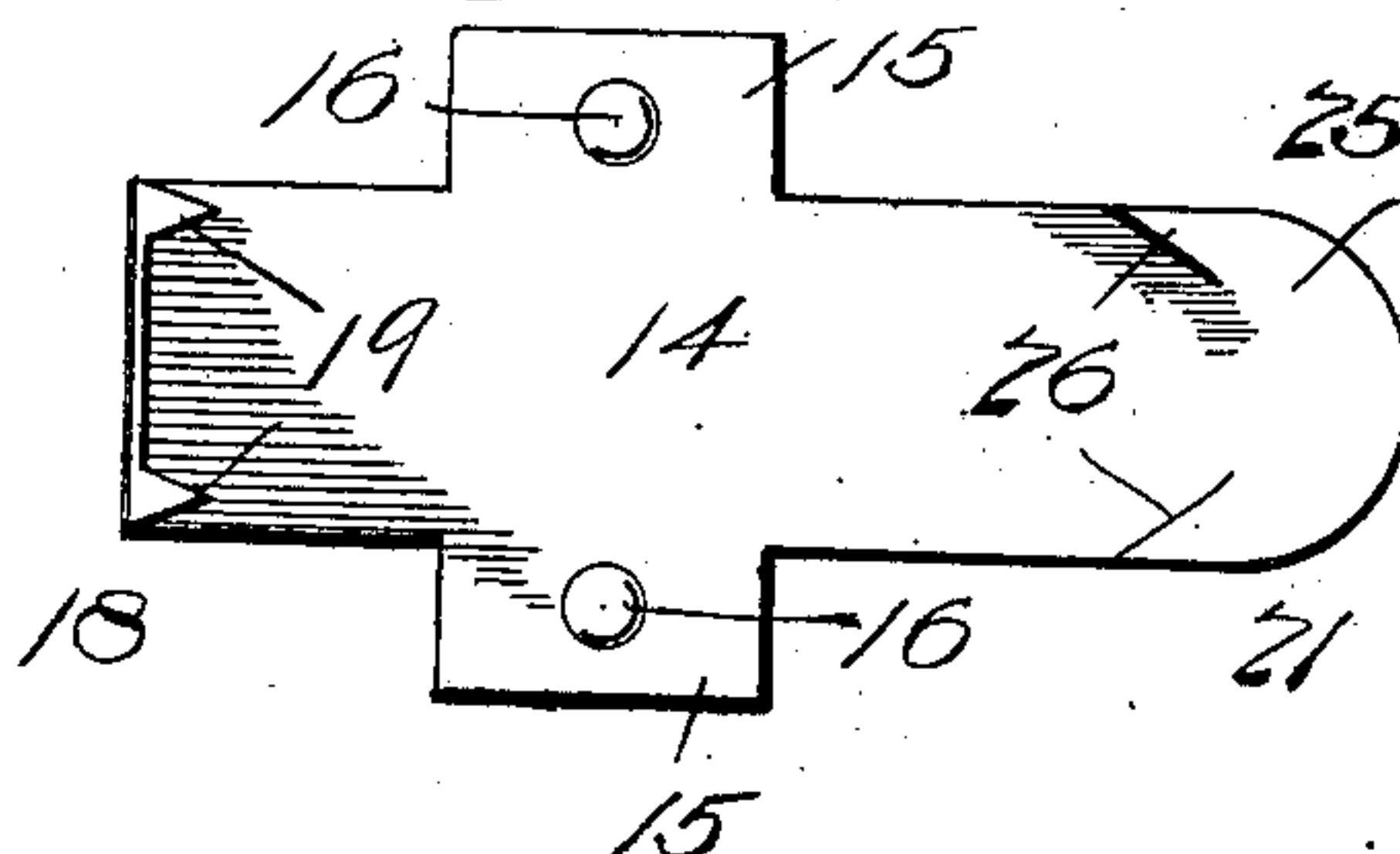


Fig. 3.

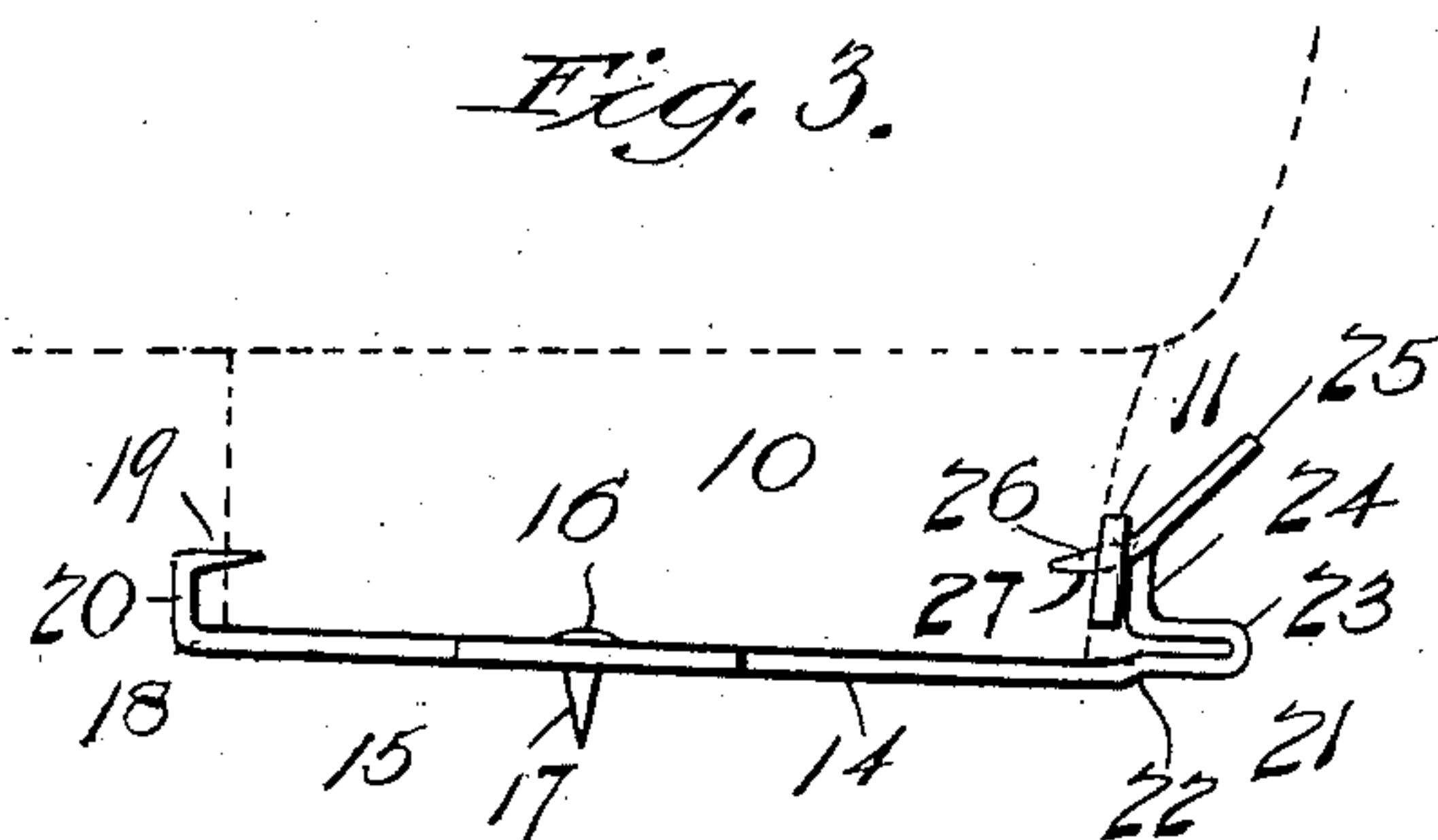


Fig. 4.

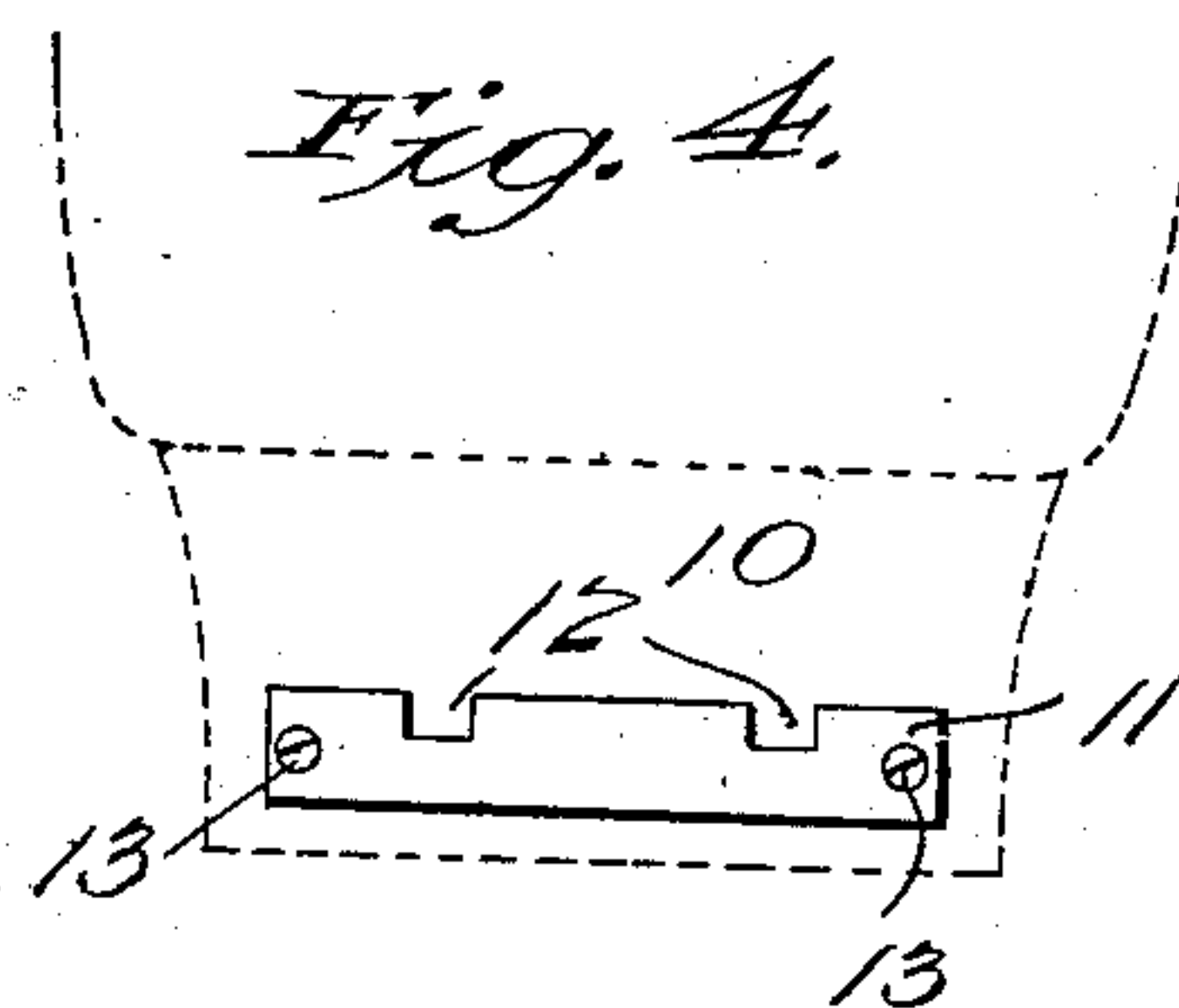


Fig. 5.

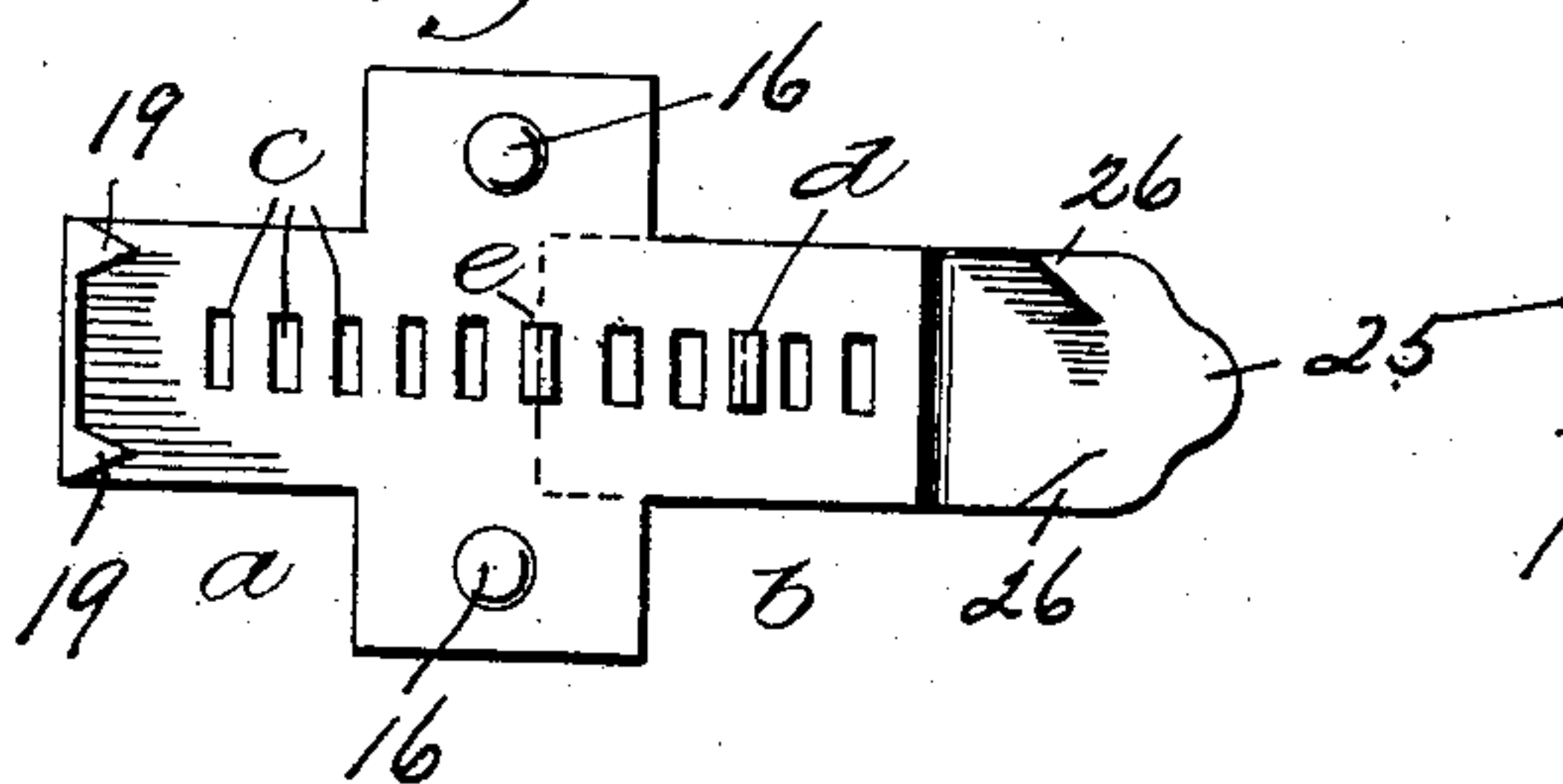


Fig. 6.

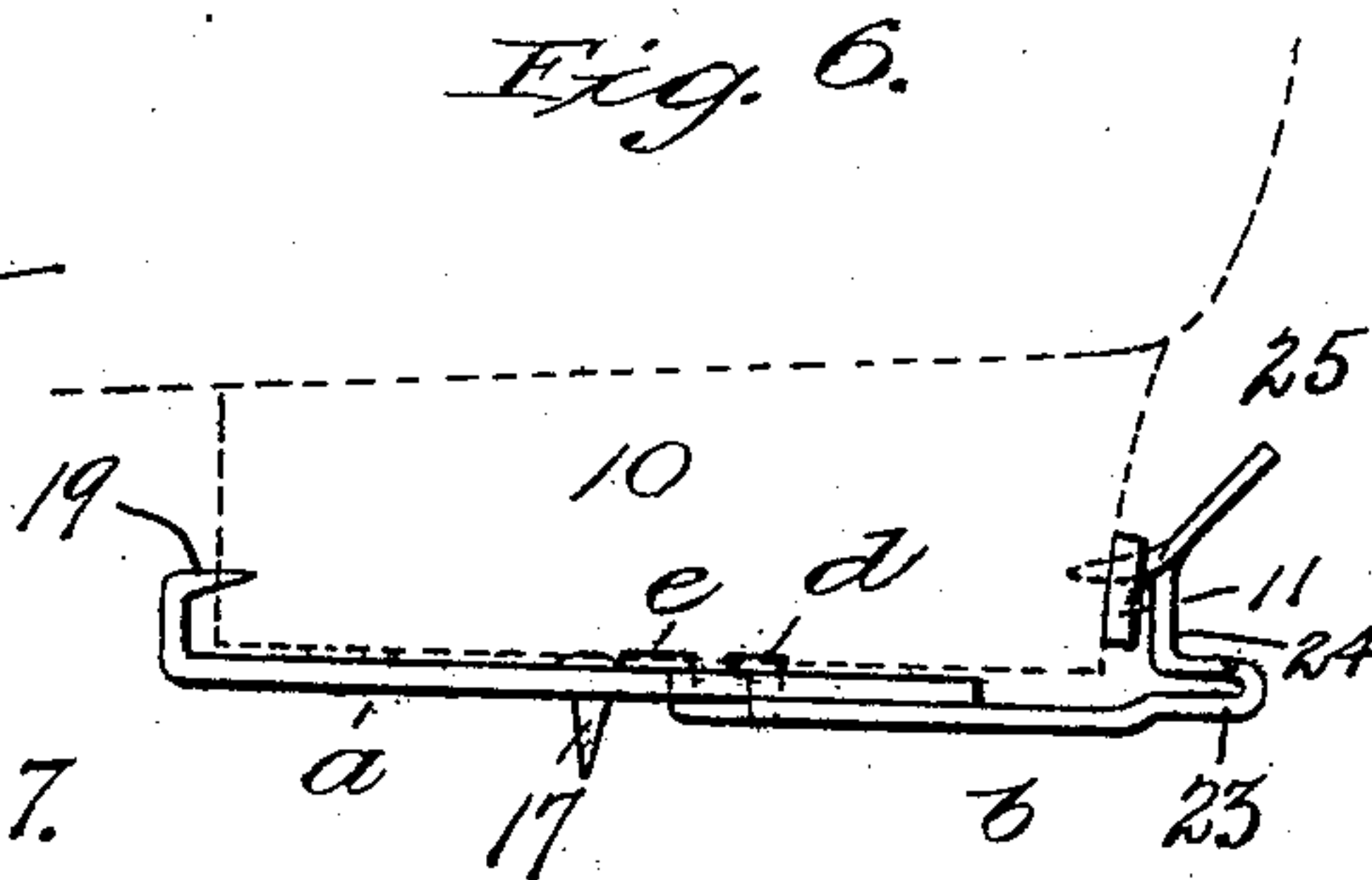
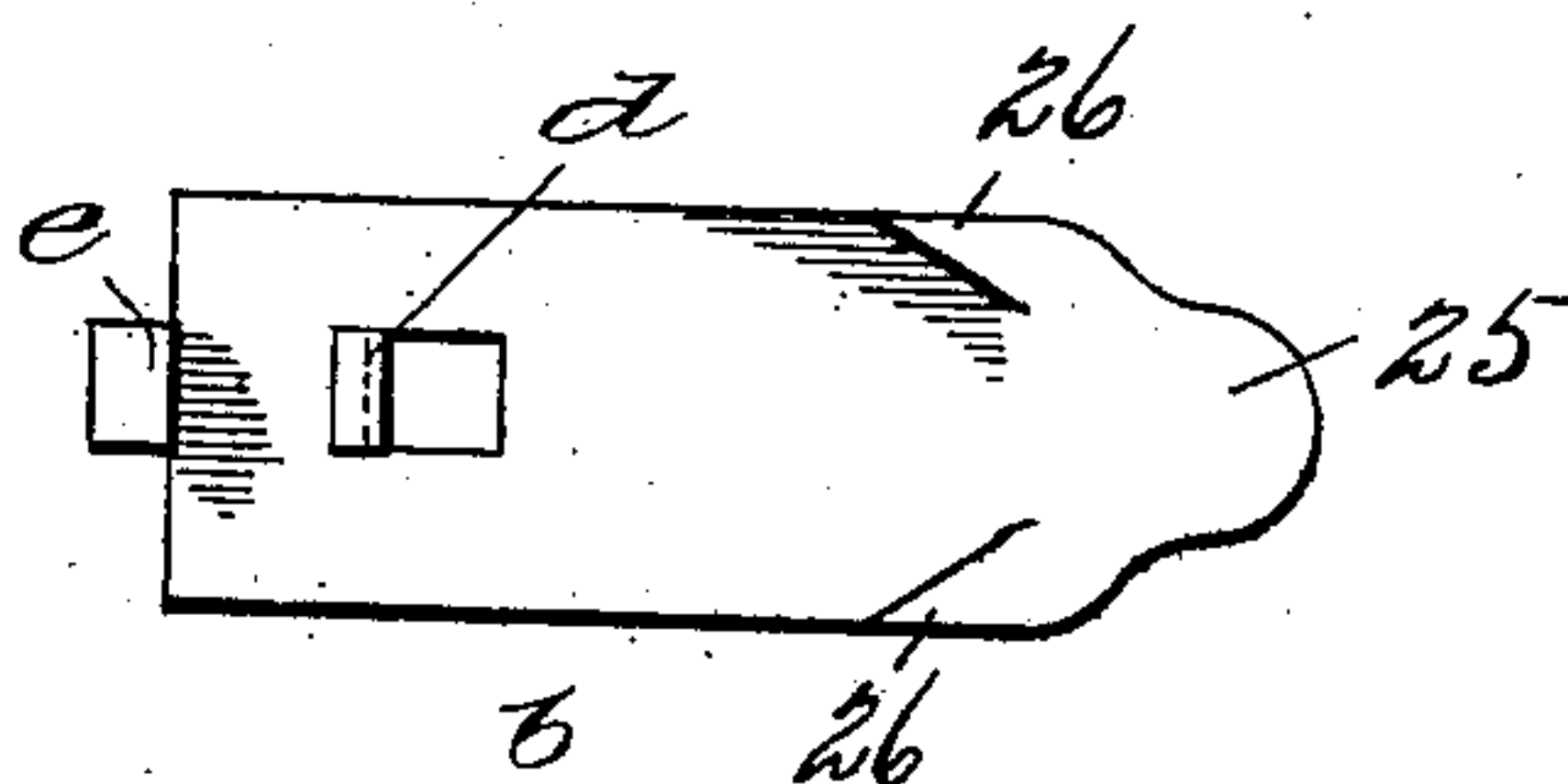
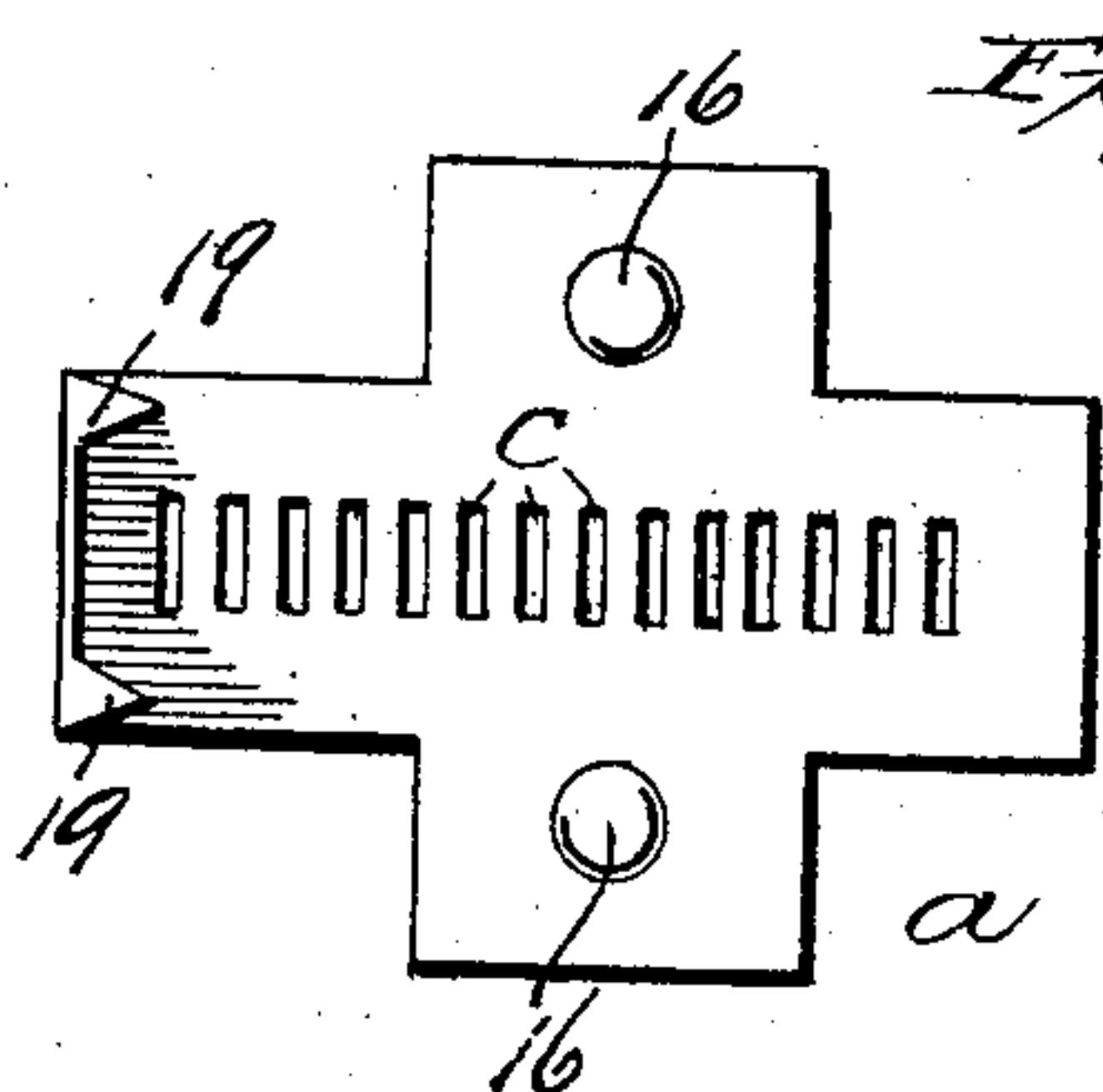


Fig. 7.



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# UNITED STATES PATENT OFFICE.

JOSEPH E. ULSH, OF ALTOONA, PENNSYLVANIA.

## ICE-CREEPER.

No. 890,826.

Specification of Letters Patent.

Patented June 16, 1908.

Application filed November 30, 1907. Serial No. 404,532.

*To all whom it may concern:*

Be it known that I, JOSEPH E. ULSH, a citizen of the United States, residing at Altoona, in the county of Blair and State of Pennsylvania, have invented certain new and useful Improvements in Ice-Creepers, of which the following is a specification.

This invention relates to ice creepers, and has specially in view certain new and useful improvements therein by means of which the same may be readily attached to or detached from heel of a boot or shoe.

With the above and many other objects in view, the invention comprises a main body plate formed of resilient material, the front and rear ends of which are provided with means for positively engaging with the heel to retain the said main body immovably in position on the heel, calks being carried by the main body portion for engagement with the ice.

The essential features of the invention are susceptible to various modifications, but preferred embodiments thereof are shown in the accompanying drawings, like characters of reference being used to designate corresponding parts.

In said drawings—Figure 1 is a perspective view of the improved ice creeper, the same being shown detached from the heel. Fig. 2 is a top plan view of the same. Fig. 3 is a side elevation showing the creeper attached to a heel. Fig. 4 is a rear view of a heel showing the same provided with a notched keeper plate. Fig. 5 is a top plan view of a modified form of the invention. Fig. 6 is a side elevation thereof, the creeper being shown attached to a heel. Fig. 7 is a top plan view similar to Fig. 5, but showing the parts of the body of the creeper separated.

In the drawings, and referring particularly to the preferred embodiment of the invention illustrated in Figs. 1 to 4, 10 designates the heel of a boot or shoe, the rear of which has fastened thereon a holding plate 11, the upper edge of which is provided with keeper notches 12. The said holding plate is arranged on the rear of the heel slightly above the wearing surface thereof and in order to make it readily detachable, it is held in place by means of the end screws 13.

The ice creeper comprises essentially a main body plate 14, which is made of springy sheet metal, and preferably in the form of a cross, the lateral side projections 15—15 of which are each provided with a perforation

for the reception of a headed calk 16, the pointed end 17 of which projects below the plate and engages with the ice or snow. The plate 14 is preferably formed of thin sheet steel and the calks of hardened steel, and the two parts may be retained in a relatively immovable position by welding, soldering, or otherwise attaching the head of the calks to the plate.

The forward end 18 of the plate is bifurcated to form the pointed spurs or prongs 19—19, and intermediate of said spurs or prongs, the plate is bent up at right angles to provide the upstanding guard portion 20, and the spurs or prongs are bent at right angles to said upstanding portion. The rear end 21 of the plate is slightly upturned, as at 22, and then bent over upon itself to form a spring loop 23, the bottom of which is approximately in the same horizontal plane as the wearing surface of the heel. The inner end of the upper portion of the loop terminates in an upstanding wall 24 from which projects an inclined detaching clip 25. At the junction of the wall 24 and the detaching clip 25, the material is cut and the points made to extend out to form sharp engaging spurs or prongs 26—26, the horizontal bottoms of which form guide rests 27—27, which are spaced apart to correspond with the keeper notches 12 formed in the holding plate carried by the heel.

In attaching the ice creeper to a heel, the front spurs or prongs are placed over the front edge thereof and forced into the material. An outward pull on the detaching clip will, on account of the resiliency of the material of which the creeper is made, expand the rear portion thereof sufficiently to permit of said rear portion being fitted over the heel, after which the pressure is released, causing the rear spurs or prongs to forcibly contact with the rear of the heel and force themselves into the material, they being guided horizontally therein by means of their bases resting in the keeper notches of the holding plate.

To detach the creeper from the heel, an outward pressure on the rear clip will withdraw the rear spurs or prongs from the material, and the creeper in its entirety may be pushed downwardly below the plane of the wearing surface of the heel, whereupon a forward movement of the creeper will readily disengage the front spurs or prongs.

In the preferred embodiment of the inven-



tion above described, it will be observed that the entire body portion is formed from one piece of material, and is of such a nature as to permit of its being readily blanked out by one operation of a suitable machine, after which the ends may be readily shaped to arrange the spurs or prongs and detaching clip in position to facilitate the attachment to, or detachment from, the heel. And it will be further observed that by means of the springy nature of the material from which the creeper is formed, a self-clamping creeper is formed which will readily clamp itself to the heel, and which will resume its shape when the distorting pressure necessary to attach it to the heel has been removed.

It will be understood that the holding plate 11 in addition to providing a rest and guide for the spurs or prongs at the rear of the creeper, also provides a rigid support therefor at a point to resist any downward pressure on the creeper that would tend to tear said spurs or prongs through the material in which they are embedded when in their attaching position.

In Figs. 5 to 7 of the drawings a modification of the invention has been shown in which the same form of attaching spurs or prongs and detaching clip has been used, and also the holding plate provided with the keeper notches. The essential difference in this form of the invention residing in making the body portion of the creeper in two separable sections, the details of which will be now described.

Referring more particularly to Fig. 6 of the drawings, it will be observed that the creeper body comprises two plates *a* and *b*, the plate *a* being of substantially the same shape as the plate 14 shown in the preferred form of the invention, and said plate has its central portion provided with a row of longitudinally arranged keeper slots *c*. The plate *b* has a portion of its intermediate body struck up to form an engaging lug *d*, and at its inner end it has formed a reduced upstanding lug *e*. Said lugs *d* and *e* are of a size to permit of them being freely passed through any of the slots *c* of the plate *a*.

In assembling the two plates, the two fastening lugs *d* and *e* are passed upward through two of the slots *c* of the plate *a*, after which their projecting ends are bent down on said plate *a*, thereby retaining said plates *a* and *b* rigidly together. To detach said plates, the ends of said lugs are returned to their upright position, whereupon they may

be removed from said slots. This form of the invention provides a structure that may be adjusted to fit various sizes of heels.

In carrying out the invention, it will be understood that the plate 11 could be omitted without departing from the invention, but said plate subserves the useful function herein indicated, and also prevents excessive wear on the rear of the heel, while at the same time preventing side motion of the creeper relative to the heel of the boot or shoe to which it is attached.

I claim:—

1. An ice creeper consisting of a body portion provided with calks, heel-engaging spurs or prongs carried at the front and rear ends of said body portion, a detaching clip carried at the rear of said body portion and formed integral with said rear spurs or prongs, and a holding plate carried by the heel and adapted to cooperate with the rear spurs or prongs.

2. An ice creeper consisting of a body portion provided with calks, heel-engaging spurs or prongs carried at the front and rear ends of said body portion, a detaching clip carried at the rear of the said body portion and formed integral with the said rear spurs or prongs, and a holding plate provided with keeper notches cooperating with the rear spurs or prongs.

3. An ice creeper consisting of a body portion the front and rear ends of which are provided with integral heel-engaging spurs or prongs, a detaching clip carried at the rear of the body portion and formed integral with the rear spurs or prongs, and a holding plate carried by the heel and provided with keeper notches cooperating with said rear spurs or prongs.

4. An ice creeper consisting of a body portion provided with calks, an upstanding guard at the front of said body portion the end of which is bifurcated and bent at right angles thereto to form heel engaging spurs, the rear of said body portion being upturned and bent upon itself to form a spring loop, and an upstanding wall integral with said spring loop and terminating in an inclined detaching clip, the edges of said wall being slitted to form heel engaging spurs.

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

JOSEPH E. ULSH.

Witnesses:

NORMAN E. GEE,  
D. LLOYD CLAYCOMB.