No. 754,500. PATENTED MAR. 15, 1904.

C. F. RECKNAGEL.

ICE CREEPER.

APPLICATION FILED FEB. 21, 1903.

NO MODEL.

Fig. 1.

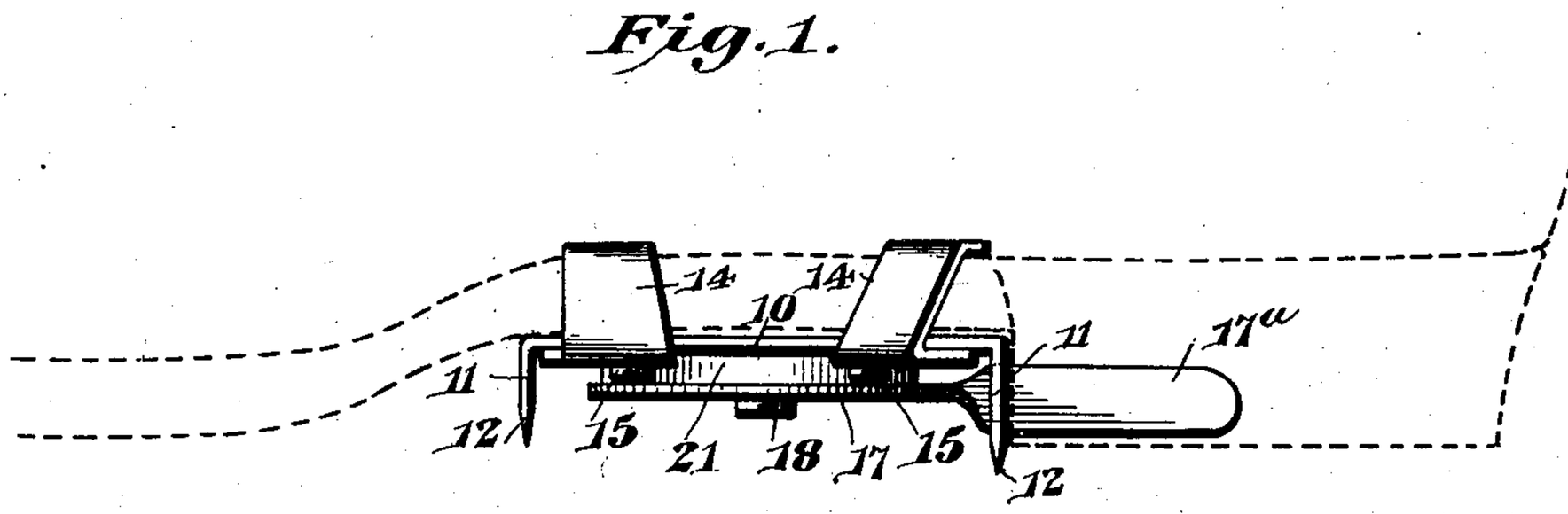


Fig. 2.

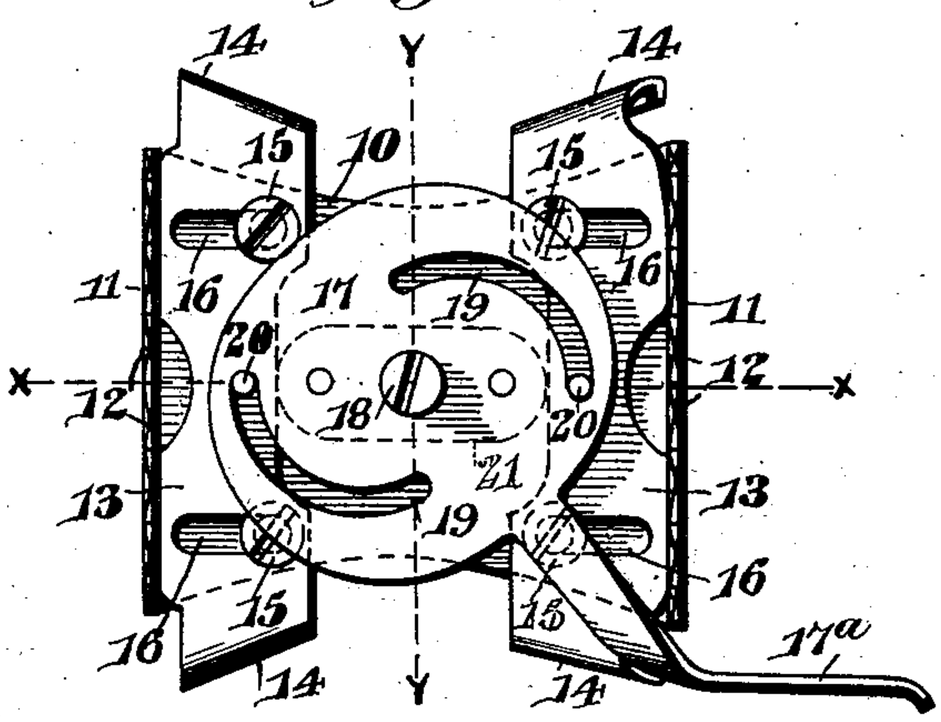


Fig. 3.

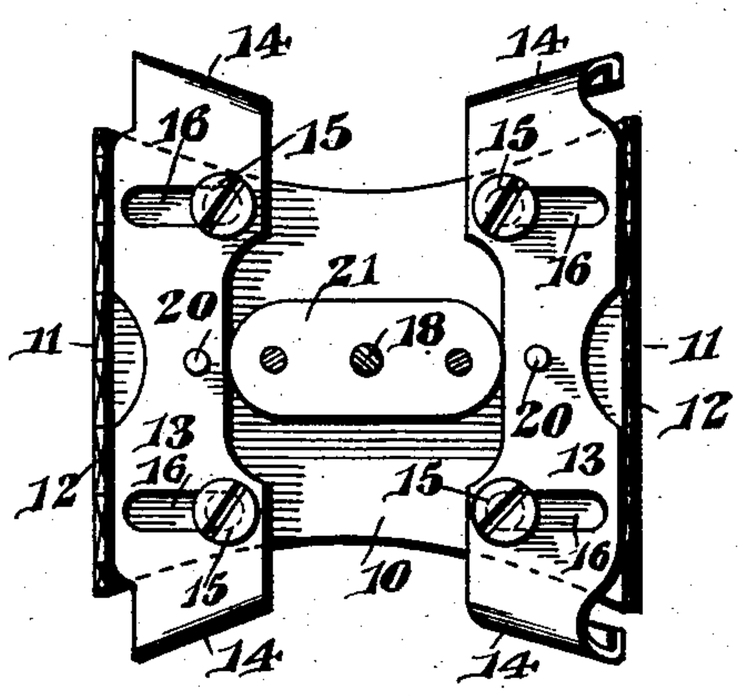


Fig. 4.

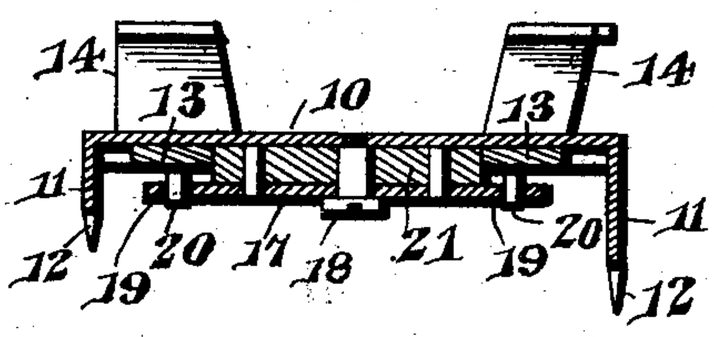


Fig. 5.

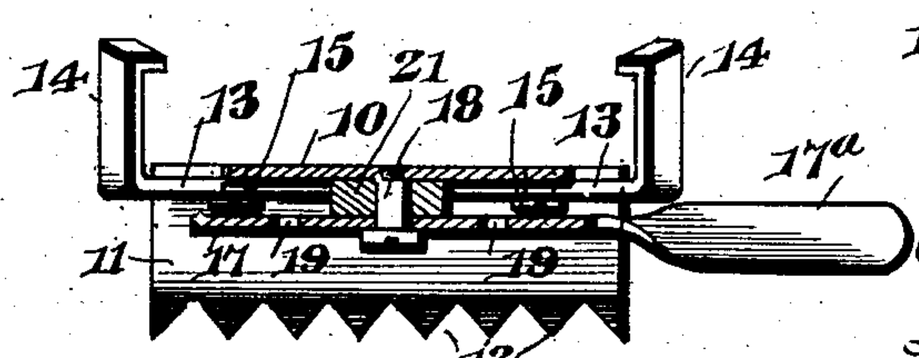
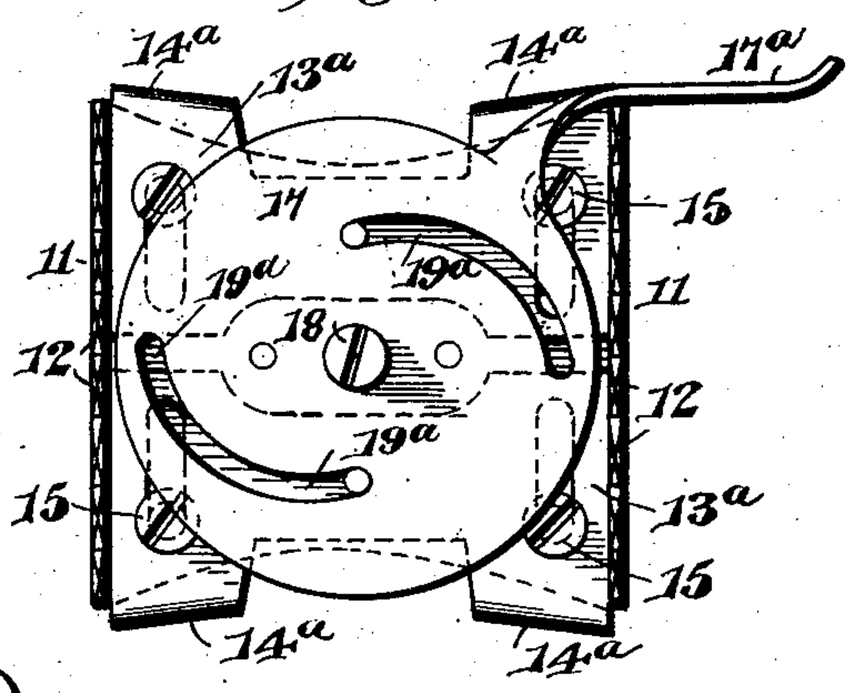


Fig. 6.



Witnesses
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No. 754,500. Patented March 15, 1904.

UNITED STATES PATENT OFFICE.

CHRISTIAN FRIEDRICH RECKNAGEL, OF NEW BRITAIN, CONNECTICUT.

ICE-CREEPER.

SPECIFICATION forming part of Letters Patent No. 754,500, dated March 15, 1904.

Application filed February 21, 1903. Serial No. 144,418. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN FRIEDRICH RECKNAGEL, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented a new and useful Ice-Creeper, of which the following is a specification.

This invention relates to that class of devices designed to be attached to a boot or shoe to prevent slipping on ice or hardened snow.

It is the object to provide a structure which may be readily manufactured, can be securely fastened to a boot or shoe without injuring the same and easily removed therefrom, said creeper while in place being fastened against slipping.

The invention will be understood by referring to the accompanying drawings, wherein two embodiments are illustrated.

Figure 1 is a side elevation of one of the structures, indicating the manner in which it is applied to a shoe. Fig. 2 is a bottom plan view of the same. Fig. 3 is also a bottom plan view with the cam removed. Fig. 4 is a longitudinal sectional view taken on the line *x x* of Fig. 2. Fig. 5 is a transverse sectional view on the line *y y* of Fig. 2, and Fig. 6 is a bottom plan view of a slightly-modified form of construction.

Similar reference-numerals indicate corresponding parts in all the figures of the drawings.

In the structure illustrated in the first five figures of the drawings, a base-plate 10 is employed having downturned flanges 11 at its ends, the edges of said flanges being serrated to form rows of teeth 12. This base-plate is preferably formed of sheet metal and conforms to the shape of the shank of the sole, being adapted to fit against the same and just in advance of the heel, as indicated in Fig. 1. As there shown, one of the flanges abuts against the heel and is somewhat longer than the one located at the front end of the plate. A pair of spaced clamp members 13 are slidably mounted upon the base and comprise metal strips that extend across the under face thereof and having upturned sole-engaging hooks 14 at their ends, said hooks extending around and above the side edges of the base-plate. The clamp members are secured to the base by means of screws 15 or other fastening devices, which pass through transverse slots 16, formed in the members. Journaled between these members is an actuating and locking device therefor in the form of a cam comprising a plate 17, secured to the base by a suitable pivot 18 and having cam-slots 19 arranged on opposite sides of the pivot. This plate is provided with a handle-lever 17^a, by means of which it may be actuated. Projecting lugs 20, arranged upon the clamp members, engage in the slots 19 and bear against the edges thereof. An additional lock in the form of a block 21 is preferably secured to the inner face of the cam-plate and is elliptical in form, being located between the clamp members and arranged to bear against their opposing inner edges, as clearly shown in Figs. 3 and 4.

In applying the device to a boot or shoe the lever is first swung outwardly, whereupon the clamp members will be drawn toward each other. The creeper is then arranged against the shank of the sole and the lever moved back to a position against or contiguous to the heel. This will move the clamp members away from each other and the hooks thereof will engage the sole-shank. The block 21 will thus be disposed in the position illustrated in Fig. 2 and serve as additional locking means, which will prevent the clamps moving toward each other and turning the cam-plate.

In Fig. 6 a slightly-modified form of construction is illustrated. The elements are substantially the same as those above described, with the exception of the clamping members. In this instance said members are arranged longitudinally of the base-plate and are designated by the reference-numeral 13^a. The terminal hooks 14^a of each clamp member extend from the same side of the creeper, and the cam-grooves 19^a are so located that when the cam is rotated the clamping members will be moved toward each other, or, in other words, transversely of the base-plate. The action is, however, substantially the same and is as effective as the arrangement first described.

It will be evident that this structure may

be manufactured at small cost, as the parts can be formed of sheet metal stamped to proper form. The creeper, furthermore, when secured will not slip upon the shoe or boot and will not only prevent slipping upon ice, but will constitute a support for the instep of the wearer.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. In an ice-creeper, the combination with a base, having spaced sets of depending spurs, of shoe-engaging members movably mounted on one side of the base between the sets of spurs and having terminal hooks that project above the opposite side edges of the base and engage the shank of the shoe or boot, and means coacting with the members for moving the same toward and from each other.

2. In an ice-creeper, the combination with a base having downturned flanges at certain of its side edges, of shoe-engaging members movably mounted on the base and having upstanding sole-engaging hooks projecting above the other side edges, and a cam journaled on the base and coacting with the members to move the hooks into engagement with the sole of a shoe and thereby secure the base with the flanges transversely of said shoe.

3. In an ice-creeper, the combination with a base-plate having downturned flanges at certain of its opposite side edges, said flanges being serrated to form spurs, of shoe-engaging members slidably mounted on the under side of the base between the flanges and having upstanding sole-engaging hooks that extend across the other opposite side edges of the base and project above the same, a cam journaled upon the under side of the base between the shoe-engaging members and extending beneath the under faces of said members, movable connections between the cam and members, and a handle carried by the cam and projecting from one side of the base, said handle swinging between the corresponding ends of the flanges.

4. In an ice-creeper, the combination with a base having rows of depending spurs at its ends, of clamp members slidably mounted on the under side of the base and extending across the same, said members having outstanding sole-engaging hooks projecting over the side edges of the base, and a cam journaled on the under side of the base between the members and coacting with the inner opposing edges thereof.

5. In an ice-creeper, the combination with a base having spurs, of spaced clamped members movably mounted upon the base, and a revoluble locking device located between and bearing against the opposing inner edges of the clamp members.

6. In an ice-creeper, a base-plate arranged to fit against the shank of the shoe-sole, said plate having its end edges downturned to constitute terminal flanges and serrated to provide transversely-disposed rows of teeth, one of said flanges being of greater width than the other and arranged to abut against the heel of the shoe, and means for securing the plate to the shoe.

7. In an ice-creeper, the combination with a base having downturned flanges and edges located in angular relation to the downturned flanges, shoe-engaging members having upturned hooks projecting above the said angularly-disposed flanges, said hooks being arranged to engage a boot or shoe and maintain the flanges in transverse relation thereto, and means for moving the shoe-engaging members.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

CHRISTIAN FRIEDRICH RECKNAGEL.

Witnesses:

HERRMANN DOERR,

ALBERT MORTON.