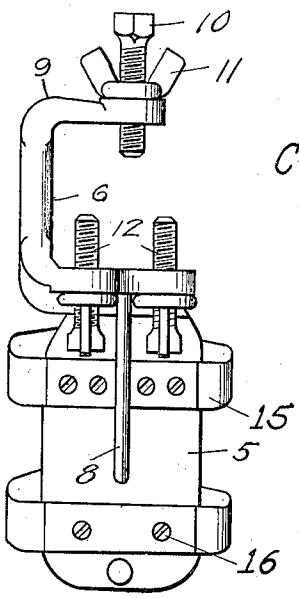
H. H. HEYWOOD, DEC'D.
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DEVICE FOR CLIMBING STEEL COLUMNS.
APPLICATION FILED JAN. 31, 1919.

1,312,399. Patented Aug. 5, 1919.

Fig. 3



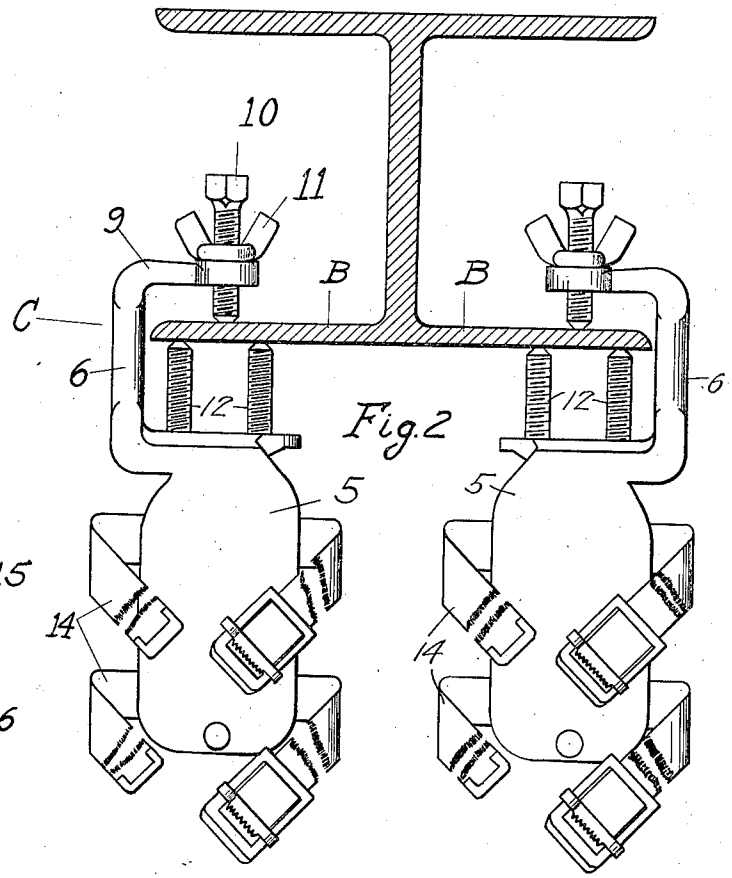


Fig. 2

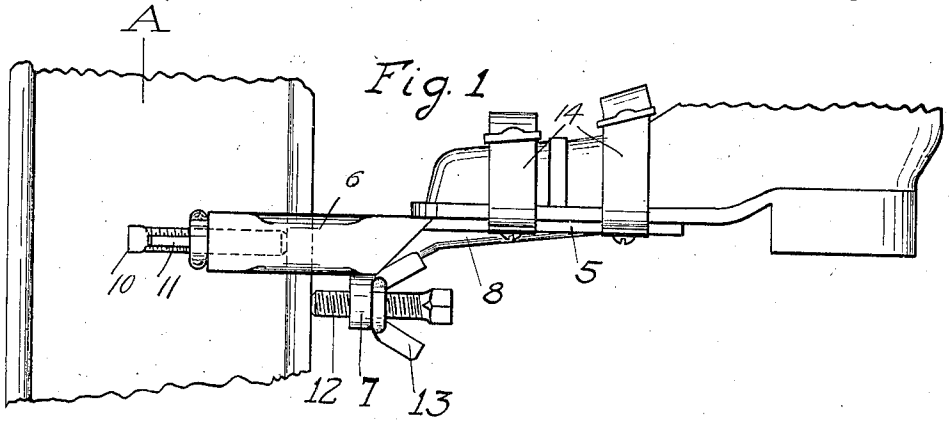


Fig. 1

Witnesses

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UNITED STATES PATENT OFFICE.

HENRY H. HEYWOOD, DECEASED, LATE OF ATLANTA, GEORGIA, BY FANNIE BROWN HEYWOOD, ADMINISTRATRIX, OF ATLANTA, GEORGIA.

DEVICE FOR CLIMBING STEEL COLUMNS.

1,312,399. Specification of Letters Patent. Patented Aug. 5, 1919.

Application filed January 31, 1919. Serial No. 274,369.

To all whom it may concern:

Be it known that HENRY H. HEYWOOD, deceased, late a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, has invented certain new and useful Improvements in Devices for Climbing Steel Columns, of which the following is a specification.

This invention relates to climbing devices, and has for its object the provision of a device which may be strapped upon the shoes so as to enable the wearer to climb up or down the I beams used as columns in structural steel work, the device being so constructed as to engage and firmly grip the flanges of a column when the wearer's weight is placed upon one foot and then the other, the movement being a natural one and similar to that employed in climbing a ladder.

An important object is the provision of a device of this character in which the members which engage the flanges of a column are adjustable so that the device may be used with equal ease upon columns formed of different thicknesses of material.

A further object is the provision of a device of this character which will be simple and inexpensive in manufacture, which may be quickly and easily applied to the shoes of the wearer, which will be efficient in use, durable in service and a general improvement in the art.

With the above and other objects and advantages in view, the invention consists in the details of construction to be hereinafter more fully described and claimed, and illustrated in the accompanying drawings in which:—

Figure 1 is a side elevation of a column showing my device engaged thereon and upon the shoe of a wearer.

Fig. 2 is a horizontal sectional view through the column and showing a pair of my devices in top plan and

Fig. 3 is a bottom plan view of one of the devices.

Referring more particularly to the drawing the letter A designates a column formed as an I beam having the oppositely extending flanges B.

In carrying out my invention, I provide a device designated broadly by the letter C and formed preferably as a single casting including a flat plate portion 5 having formed upon one end thereof a laterally directed U-shaped yoke 6 and also having formed thereon a pair of spaced depending ears 7 located at the juncture of the plate portion 5 with the yoke 6. A rib 8 is preferably formed upon the underside of the plate portion 5 and extends to a point between the ears 7 for reinforcing the plate portion.

Threaded through the extremity of the arm 9 of the U-shaped yoke 6 is the set screw 10 extending toward the plate portion 5 and disposed substantially in alinement with the longitudinal axis thereof. The set screw 10 has threaded thereon a lock nut 11 whereby it may be secured in adjusted positions. Threaded through the ears 7 are similar set screws 12 which extend toward the set screw 10 and which are in parallel relation thereto and to each other. The set screws 12 are so arranged as to be upon opposite sides in respect to the set screw 10 and are provided with lock nuts 13 whereby they may be secured in adjusted positions. It will be noted that the set screws 12 lie in the same plane and that they are below the set screw 10.

Suitable straps 14, provided with any suitable securing means are disposed upon the underside of the plate 5 and are held in position by suitable metallic strips 15 and screws or rivets 16.

In use, the device is applied to the wearer's foot by engaging the plate portion 5 beneath the sole and strapping it firmly thereto by means of the straps 14. When the device is thus applied the yoke portion 6 will be in advance of the toe of the shoe as clearly shown in the drawings. In order to climb a column such as shown, it is merely necessary that the operator so place his feet that the oppositely extending flanges D of the column will be disposed between the set screw 10 and the set screws 12 as clearly shown in Fig. 2. The operator then moves one foot upwardly to the desired height and throws his weight upon it, whereupon the device will rock downwardly until the screws 12 engage firmly against the flange B after which further movement will be impossible. In view of the fact that the screws 12 lie in a lower plane than the screws 10 all the screws will coöperate to grip the flange B and prevent any slipping of the device thereon. The next step is taken in exactly the same manner, the operator sliding the device upwardly along the flange B with his

foot in a normal horizontal position so that the screws will not have any gripping action upon the flange until the operator rocks the device downwardly by placing his weight upon it. This action is continued throughout the length of the column, the movement being the same as that employed in climbing a ladder. A descent of the column is accomplished in the same manner as will be quite obvious.

Owing to the fact that the screws 10 and 12 may be adjusted it will be seen that the device can be readily adapted for use upon columns formed of beams of different thicknesses.

From the foregoing description and a study of the drawing it will be apparent that I have thus provided an extremely simple and inexpensive device which may be readily applied to the shoes of a wearer so as to enable the wearer to climb the columns of structural steel work with ease and without any danger.

While I have shown and described the preferred embodiment of the invention it will of course be readily understood that I reserve the right to make such changes in the form, construction and arrangement of parts as will not depart from the spirit of the invention nor the scope of the subjoined claims.

Having thus described my invention I claim:—

1. A device of the character described, comprising a body formed as a flat plate, a laterally disposed U-shaped yoke formed on one end of said plate, depending ears formed on the lower-side of said body at the juncture of said yoke with said plate, a member extending from the free end of said yoke toward said plate, a pair of members extending from said ears toward said first named member and in spaced parallel relation thereto and to each other and means for securing said body upon a shoe.

2. A device of the character described comprising a body formed as a plate, a laterally extending U-shaped yoke formed on the forward end of said plate, a pair of depending ears formed at the juncture of said yoke with said plate, a set screw threaded through the free end of said yoke and extending toward said plate, a pair of set screws threaded through said ears in spaced parallel relation to each other and to said first named set screw and extending in the opposite direction to said first named set screw, and securing straps carried by said plate whereby the device may be secured upon a shoe.

3. A device of the character described comprising a body formed as a single casting and including a flat plate portion, a laterally extending U-shaped yoke formed integrally upon one end of said plate portion, the upper edge of said yoke lying in the same plate as the upper surface of said plate portion, a pair of depending ears formed at the juncture of said yoke and said plate portion, a set screw threaded through the extremity of said U-shaped yoke and extending toward said plate portion substantially in alinement with the longitudinal axis thereof, and a pair of set screws threaded through said ears and extending in a direction opposite to that of the first named set screw, said last named set screws being in spaced parallel relation to each other and to said first named set screw.

FANNIE BROWN HEYWOOD,
Administratrix for the estate of Henry H. Heywood, deceased.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."