

H. E. HERSH.
CLIMBING APPARATUS.
APPLICATION FILED OCT. 27, 1910.

1,007,354.

Patented Oct. 31, 1911.

FIG. II.

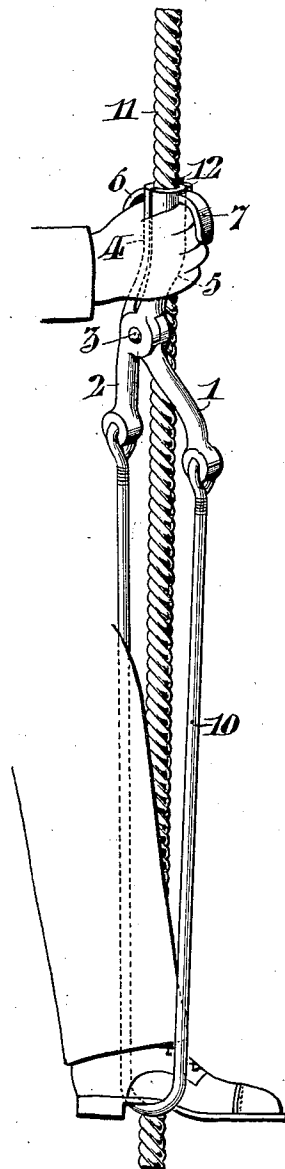


FIG. I.

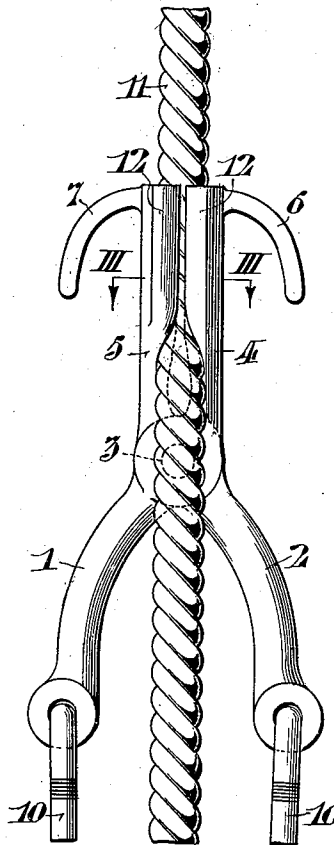
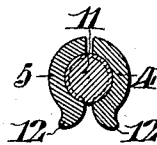


FIG. III.



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CLIMBING APPARATUS.

1,007,354.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HARVEY E. HERSH, of Allentown, in the county of Lehigh and State of Pennsylvania, have invented certain new and useful Improvements in Climbing Apparatus, whereof the following is a specification, reference being had to the accompanying drawings.

The invention relates to new and useful improvements in a climbing apparatus and has for an object to provide a device which may be positively opened by the climber so that said device may be readily removed from the rope and attached at another point.

A further object is to provide a climber device of the above character with means whereby said device may be readily attached to the belt, if desired.

In the drawings which show by way of illustration one embodiment of the invention, Figure I, is a side view showing one of the gripping devices attached to a rope. Fig. II, is a perspective view showing the manner of using my device. Fig. III, is a sectional view through the gripping jaws, taken on the line III, III, in Fig. I.

My improved climbing device consists of a pair of gripping jaws, one of which is adapted to be supported in each hand, and by the use of these gripping jaws, I am able to climb a pole, column, rope or the like, or any other devices which may be gripped by said jaws. The gripping devices are similar in construction, and therefore, I have only shown one in the drawings. Said gripping device consists of a pair of jaws 4, and 5, which are pivoted at 3. The jaw 4, has formed integral therewith, an operating lever arm 1, and a jaw 5, is provided with a similar lever arm 2. The lever arms 1, and 2, at their outer ends are formed with eyes which are adapted to receive a rope or strap 10. Said rope or strap is preferably of suitable length so as to receive the foot of the climber. The jaws 4, and 5, as clearly shown in Fig. III, are slightly concaved on their inner face so as to retain a gripping contact with the rope. It is obvious, however, that the inner face of these jaws may be made of any desired shape. The gripping part of the jaws and the outer ends of the lever arms 1, and 2, lie substantially in the same plane while the pivotal point 3, is laterally deflected. The object of this lateral deflection of the pivotal portion of the jaws, is so that when the gripping jaws are in contact

with the rope, the point of support of the weight on the gripping device is directly beneath the gripping jaws, so that the weight pulls directly down on the jaws, without bending or tilting the same, which might cause the jaws to slip from the rope.

Adjacent the upper end of each jaw, I have provided laterally extending and downwardly bent hooks 6, and 7. These hooks are so shaped as to engage over the top of the hand of the climber as clearly shown in Fig. II. The hooks also may be used when desired to sustain the gripping device from the belt of the climber.

In the use of my apparatus, a gripping device is placed in each hand, and when the hand is open, the jaws will be positively opened by means of the contact of the hooks 6, and 7, with the hand. The jaws are then placed on the rope 11, as clearly shown in Figs. I, and II. The weight of the climber is thrown on to the foot in the strap 10, and the downward pull on the strap 10, operates through the lever arms 1, and 2, to cause the clamping jaws to firmly grip the rope. As above noted, the weight of the climber is directly beneath the clamping jaws. The second gripping device is then attached to the rope at a point above the first gripping device, and the weight thrown to the second gripping device, which will release the first gripping device so that the climber may readily open the jaws, lift the clamping device from the rope, and attach the same at a point higher up on the rope. The hooks 6, and 7, not only enable the climber to readily and positively release the clamping jaws, but also form a support for the gripping device in the hand of the climber. In order to facilitate the placing of the jaws on the rope, I have provided each jaw 4, and 5, with outwardly flared curved portions 12, which form an open mouth to guide the rope into the jaws.

It will be obvious that minor changes in the details of construction may be made without departing from the spirit of my invention.

Having thus described my invention, I claim:—

1. A climbing apparatus consisting of a pair of members pivoted intermediate their ends, clamping jaws formed on each of said members at one end thereof, flexible supporting means connected to the opposite ends of said members and adapted to force

said jaws toward each other, and hand pieces connected to said jaws adjacent the upper ends thereof, said hand pieces extending outwardly and downwardly so as to engage
5 the outer portion of the hand, whereby when said hand is opened the gripping jaws will be opened.

2. A climbing apparatus consisting of a pair of members pivoted intermediate their
10 ends, gripping jaws carried thereby, each of said jaws having an outwardly projecting tapering member forming a mouth to guide the rope to said jaws, a flexible supporting means connected to the opposite ends of said
15 members, and adapted to force said members toward each other, and hand pieces connected to the jaws adjacent the upper ends thereof, said hand pieces extending outwardly and downwardly so as to engage the outer
20 portions of the hand, whereby the opening of the hand will open said jaws.

3. A climbing apparatus consisting of a

pair of members pivoted intermediate their ends, gripping jaws carried thereby, a flexible supporting means connected to the opposite end of said members, and adapted to
25 force said jaws toward each other, said members being laterally deflected at the pivotal connection whereby the point of support is brought directly underneath the gripping
30 jaws, and hand pieces connected to said jaws at the upper ends thereof, said hand pieces extending outwardly and downwardly so as to engage the outer portions of the hand, whereby the opening of the hand will open
35 said jaws.

In testimony whereof, I have hereunto signed my name at Allentown, Pennsylvania, this fourteenth day of October, 1910.

HARVEY E. HERSH.

Witnesses:

H. L. KUHN,
L. R. WEISS.

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