

D. V. BENGTON.
 ROPE HOLDER.
 APPLICATION FILED APR. 27, 1910.

994,089.

Patented May 30, 1911.

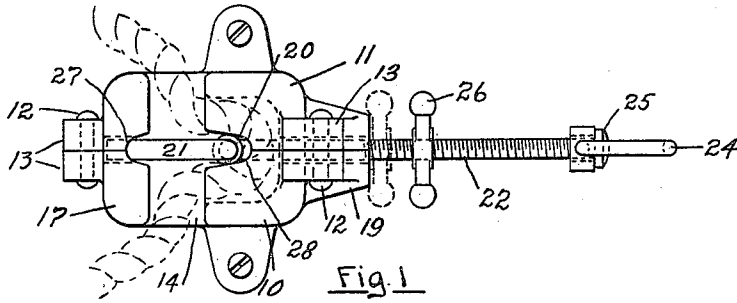


Fig. 1

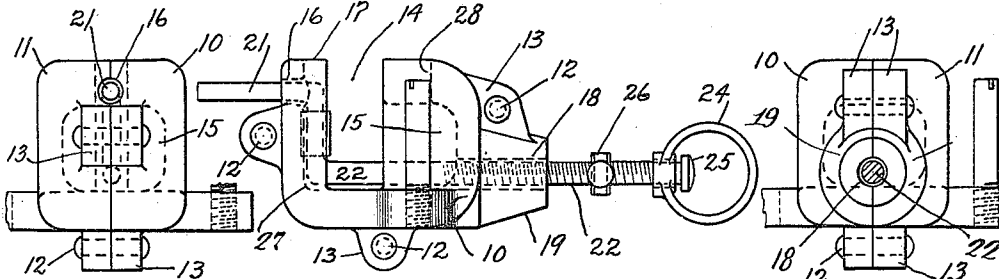


Fig. 2

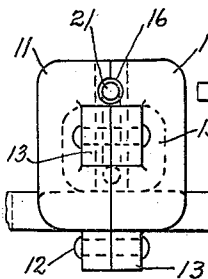


Fig. 3

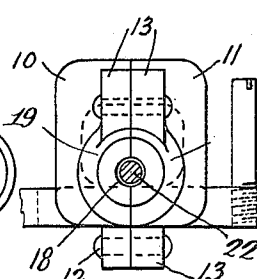


Fig. 4

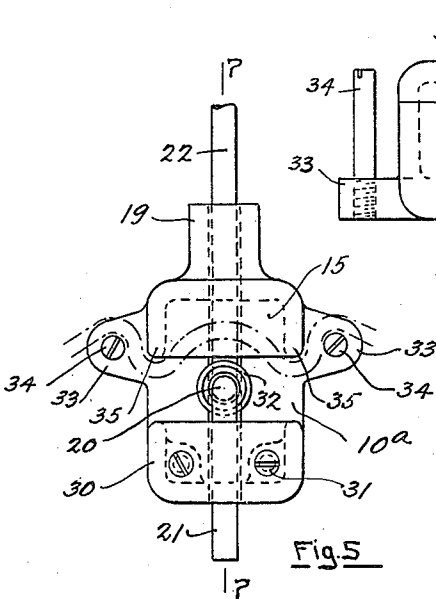


Fig. 5

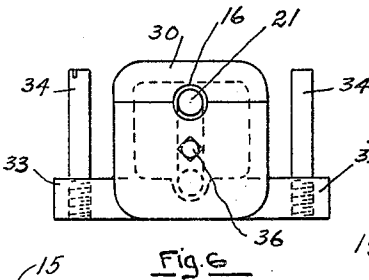


Fig. 6

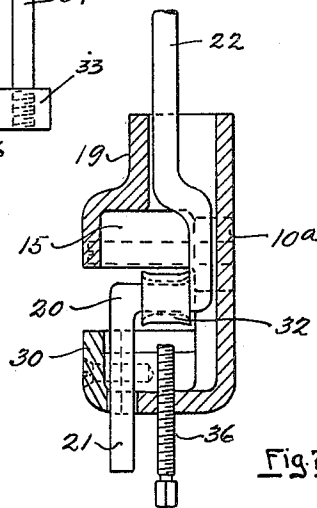


Fig. 7

Witnesses:
 W. M. Bastable
 E. L. Jones

Inventor
 Daniel V. Bengtson
 By his Attorney
 H. C. Carlson

UNITED STATES PATENT OFFICE.

DANIEL V. BENGTON, OF NEW YORK, N. Y.

ROPE-HOLDER.

994,089.

Specification of Letters Patent.

Patented May 30, 1911.

Application filed April 27, 1910. Serial No. 557,940.

To all whom it may concern:

Be it known that I, DANIEL V. BENGTON, a citizen of Sweden, and resident of the borough of Manhattan, in the county of New York and State of New York, have invented certain new and useful Improvements in Rope-Holders, of which the following is a specification.

This invention relates particularly to that class of rope holders wherein the rope is clamped by two members which form a bight or loop of the rope held between them by the strain or weight thereon.

It consists in the novel construction of a relatively stationary socket member, also of a movable jaw member therein, and the means by which the two members can be locked together.

The object of the invention is to provide an absolutely safe and reliable device for holding a rope fixedly at any desirable position in connection with painters' scaffolds and other apparatus, where life and limb would be endangered by the slipping of the rope.

In the accompanying drawings which are hereby made a part of this specification: Figure 1 is a top plan view of the device showing in dotted lines a portion of a rope held therein; Fig. 2 is a front view of Fig. 1 with some of the elements in a changed position; Fig. 3 is a partly broken left-hand side view of Fig. 2; Fig. 4 is a partly broken right hand side view of Fig. 2 with an element shown in section; Fig. 5 is a top plan view of a modified form of the invention with some of the elements omitted; Fig. 6 is a bottom view of Fig. 5; and Fig. 7 is a section on the line 7—7 of Fig. 5.

The invention includes a relatively stationary socket member comprising a pair of opposite similarly formed sections 10 and 11 which are held together by rivets 12 passing through ears 13 that project from the said members 10 and 11. The socket is formed with a lateral gap 14 in which the rope is placed. The said gap 14 communicates with a box shaped recess 15 into which the rope is forced by a movable jaw member 20. The latter is provided at its outer end with a rearwardly extending guide 21 at right angles thereto, that is slidably supported in an opening 16 formed with a fixed jaw 17 of the socket member. The inner end of the movable jaw 20 has a forwardly extending guide

22 also at right angles thereto that is slid-able within an opening 18 formed in a nose portion 19 of the said socket.

The offset of the rear and forward guides respectively 21 and 22 from the transverse jaw 20 prevent rotation or twisting of the said jaw within the socket and they insure proper coöperation of the jaw 20 with the box shaped recess 15.

The forward guide 22 extends beyond the nose portion 19 and is provided at its outer end with a swivel ring 24 by means of which the device is self adjusting to find its proper position when supported therefrom. A head 25 at the extreme end of the guide stem 22 holds the said swivel ring 24 from disengagement therewith. The said guide stem 22 is threaded for a specified distance and a thumb nut 26 is in engagement therewith by means of which the movable member 20 is maintained in a locked position to securely grip or clamp the bight of the rope forced into the pocket or box shaped recess 15, as shown in Fig. 1. The thumb nut is represented in two positions in the latter named figure; the full lines showing it retracted on the guide stem; and the dotted lines showing it driven against the said nose portion to hold the clamp in position.

In Fig. 2 the socket is shown open and the jaw 20 is lodged within a groove 27 formed with the lateral or fixed jaw 17. At a point opposite to the said groove 27 the socket is provided with a similar but deeper groove 28 to receive the jaw 20 in its forward position.

In Figs. 5, 6 and 7 the socket member 10^a is formed of a single piece wherein the movable member 20 is placed, and a cover plate 30 fastened in position by screws 31 holds the member 20 in operative position.

In both forms of the device herein shown and described, the movable member 20 is preferably provided with a roller 32 to minimize the wear on the rope, and the socket, 10—11 or 10^a, has a pair of side lugs 33 into which holding or belaying pins 34 are removably secured transversely to the general axis of the rope. The said pins are provided to give an additional curvature contact, thereby forming two subordinate bights of the rope against the adjacent corners of the socket, as shown, for example, in Fig. 5, where the rope curves past the rounded corners 35 of the socket 10^a. The locking means employed in the modified form of the device

is also arranged axially with respect to the movement of the jaw 20 and comprises a set screw 36 that is threaded into the lower end of the socket 10^a. The said screw is brought
5 up against the roller 32 to force the rope into the recess 15.

The modified design represented in Figs. 5 to 7 is preferable when ropes or lines of varying sizes are used in the same socket, but for the purpose of economy in manufacture the form of construction illustrated in Figs. 1 to 4 has the advantage in that no special cores are required, and the sections can be cheaply and securely riveted together
15 after the movable jaw has been placed in position therein. Nevertheless, by a slight modification of the shape of the movable member 20, the socket 10—11 can be made integral or in one piece, and the socket 10^a as well.
20

From the foregoing description the operation of the invention can be readily understood without further explanation as it can be seen that it is only necessary to place the
25 part of the rope to be held into the gap of the socket member, then by the weight of the scaffold or pull on the line at the end of the swivel ring the jaw member is drawn up with the rope in front of it into the box shaped recess, after which the thumb nut or set screw can be tightened up to permanently lock the rope in position.
30

By means of my device the rope is bent around curved surfaces and firmly held by
35 friction without the fibers thereof being cut or crushed. The thumb nut or set screw provides a safe locking means upon the rope without possible opening of the jaw as may occur with cams and similar quick acting
40 means, and which is very dangerous with suspended scaffolds such as painters use that are held by ropes and ordinary fastenings.

Having described my invention what I de-

sire to secure by Letters Patent and claim is:—

1. A rope holder comprising a member adapted to be suspended at one end, an offset jaw at the other end of said suspension member, a guide extending rearwardly from said jaw and a socket having a straight sided outwardly open rope receiving gap connecting with one end of a closed sided recess, said socket being provided with openings in offset alinement to receive said suspension member and said guide, and adapted to slide axially thereon, whereby a rope placed in the gap is forced by said jaw into the recess against the load on the rope.
45 50 55

2. A rope holder comprising a member adapted to be suspended at one end, an offset jaw at the other end of said suspension member, a guide extending rearwardly from said jaw, a socket having a straight sided outwardly open rope receiving gap connecting with one end of a closed sided recess, said socket being provided with openings in offset alinement to receive said suspension member and said guide, and adapted to slide axially thereon, lugs projecting from the sides of said socket adjacent to the gap, and holding pins removably secured in said lugs transversely to the axis of said suspension member and adapted to form the rope in subordinate bights on either side of said jaw to increase its frictional contact when ropes of varying sizes are placed in the gap to be forced by said jaw into the recess of said socket against the load on the rope.
60 65 70 75

Signed at the borough of Manhattan in the county of New York and State of New York this 26th day of April, A. D. 1910.
80

DANIEL V. BENGTON.

Witnesses:

H. C. KARLSON,
WM. H. GEE.