March 6, 1951 S. W. HERRINGTON 2,544,086

WEDGE TYPE STRAND BRAKE WITH COCKING ENGAGEMENT

Filed Dec. 24, 1946

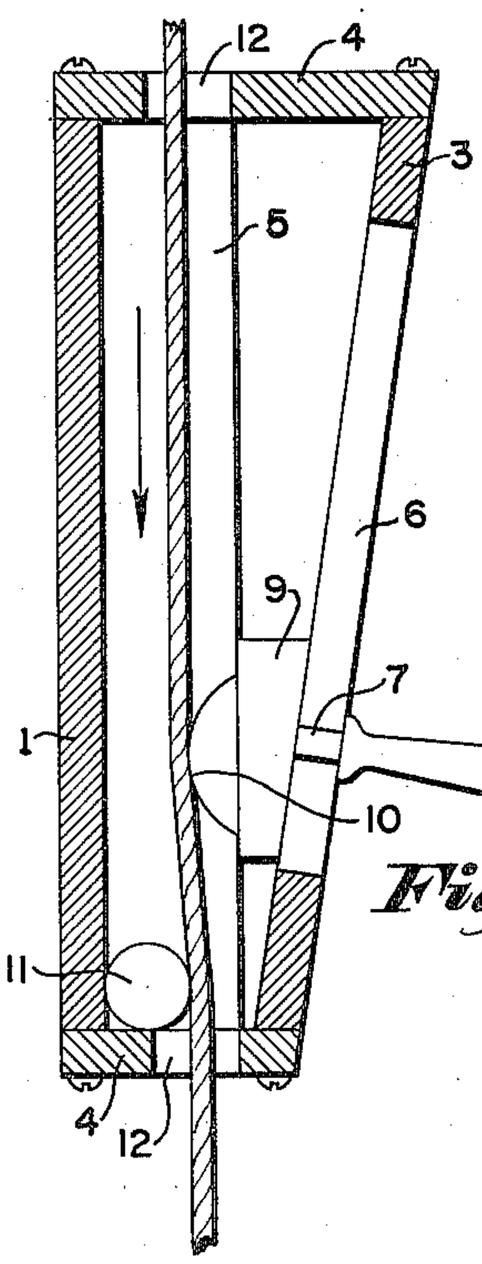


Fig. 1

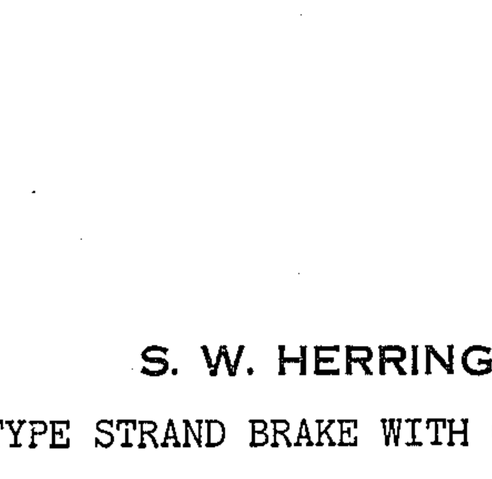


Fig. 4

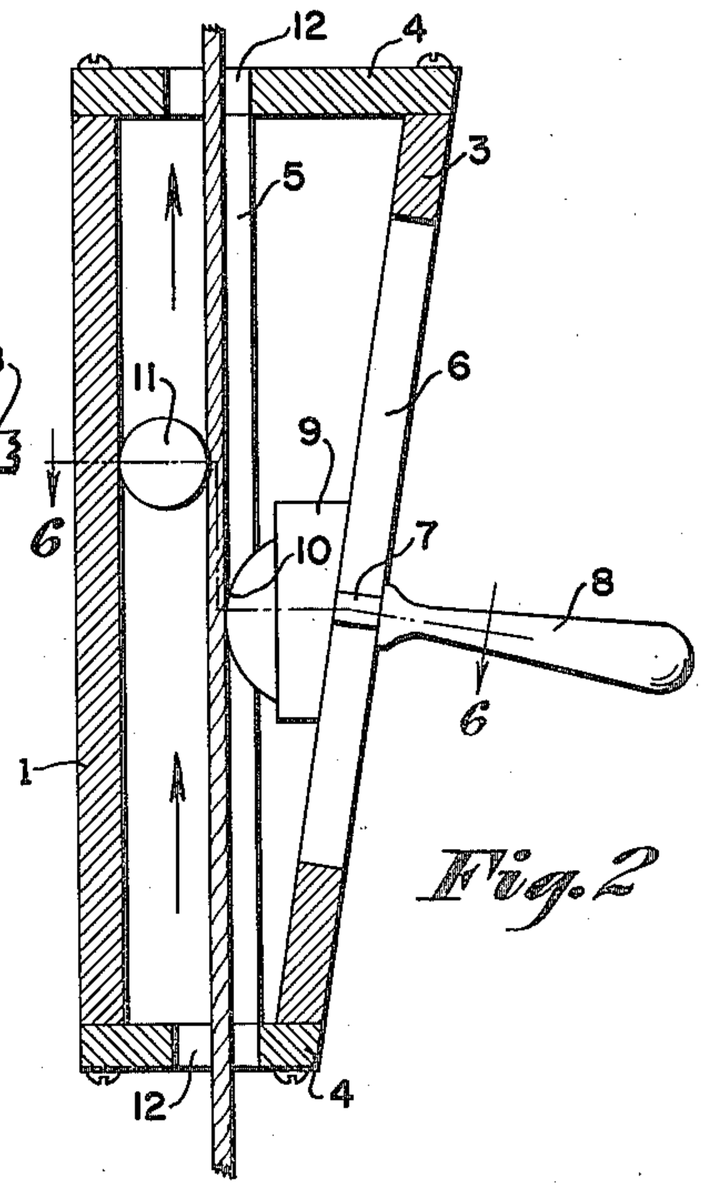


Fig. 2

Fig. 5

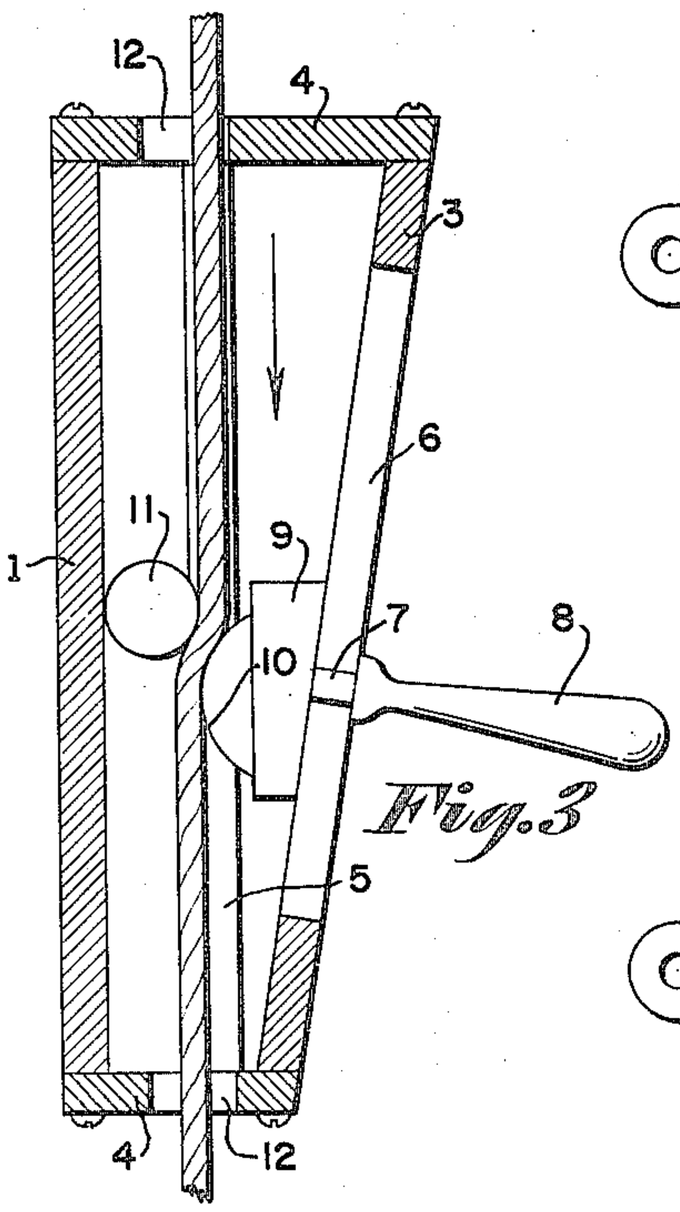


Fig. 3

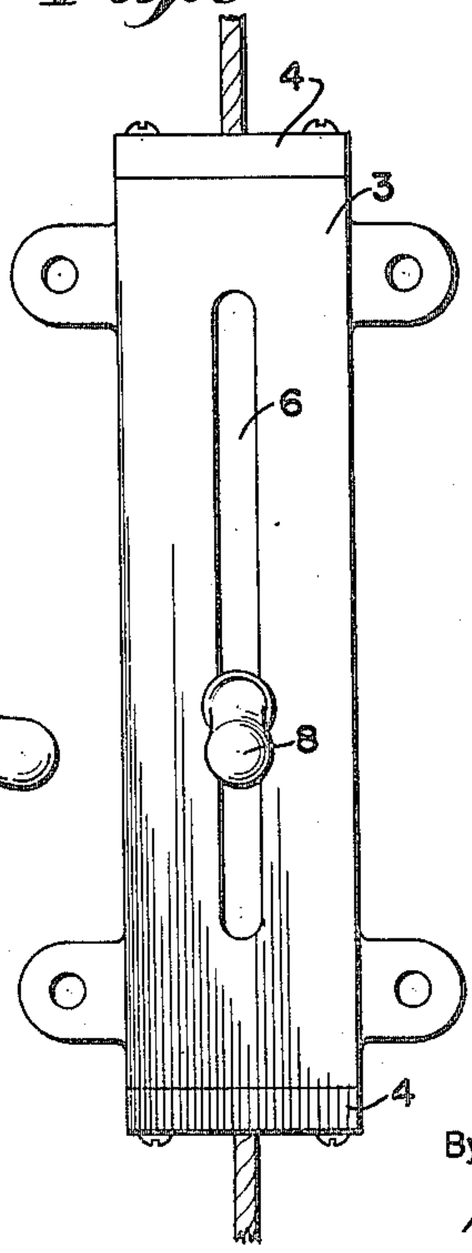
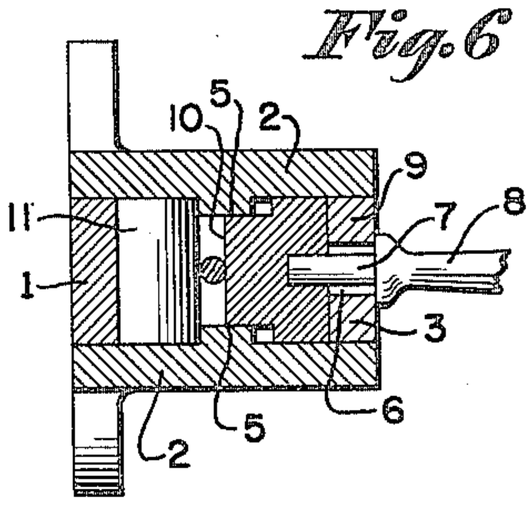


Fig. 6



Inventor

S. W. HERRINGTON

By Mann, Fenwick & Lawrence
Attorneys

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UNITED STATES PATENT OFFICE

2,544,086

WEDGE TYPE STRAND BRAKE WITH COCKING ENGAGEMENT

Sanford W. Herrington, Velasco, Tex.

Application December 24, 1946, Serial No. 718,177

2 Claims. (Cl. 24—136)

1

This invention relates to gripping devices and more particularly to a gripping device for controlling ropes or cables.

An object of the invention is to provide an improved and simplified device through which a rope or cable can be passed which will effectively grip and hold the cable in its passage in one direction and which can be readily released.

A further object is to provide a device of the character indicated, in which, by reversal of the direction of the rope or cable, the gripping elements are automatically reversed in position from that permitting free passage of the rope or cable, to one assuring the gripping of the rope or cable when the original direction of travel is resumed.

A further object of the invention is to provide a device of the character indicated which will effectively grip and hold a rope or cable without damaging the same.

Further objects will more particularly appear in the course of the following detailed description.

The invention consists in the novel construction, arrangement and combinations of parts hereinafter more particularly described and claimed.

One sheet of drawings accompanies this specification as part thereof in which like reference characters indicate like parts throughout.

In the drawings:

Figures 1, 2 and 3 are each medial vertical longitudinal cross sections taken through the device showing the rope engaging members in different positions with respect to a cable passing through the device in the directions indicated by the arrow;

Figure 4 is a top plan view of the device;

Figure 5 is a front elevation of the device, and

Figure 6 is a transverse cross section taken on line 6—6 of Figure 2.

In the embodiment of the invention illustrated in the drawings a housing is provided comprising a back 1, two side wall members 2—2, a front member 3 and top and bottom members 4—4.

The top and bottom members are provided with aligned holes 12—12 to permit the passage of a rope or cable through the housing and the side walls 2—2 are formed with inwardly extending guide rail portions 5—5 which extend parallel with the back member 1 and between the opposed openings 12—12 in the top and bottom

2

members through which the rope or cable is intended to pass.

Between the back member 1 and the opposed guide rails 5—5 is positioned a friction roller 11 which is freely slidable between the back and the guide rails 5—5, the ends of the roller 11 contacting the side walls 2—2 so as to maintain this roller 11 with its axis perpendicular to the guide rails 5—5 and to the normal position of a rope or cable passing through the device.

The side wall members 2—2 have inclined front edges and the front wall 3 is similarly inclined so that its inner face constitutes a cam surface obliquely disposed with respect to the guide rails 5—5. The front wall 3 is further provided with a medial longitudinal slot 6 through which extends the neck portion 7 of a handle 8 secured to a friction cam block 9 having on its rear face an arcuate cam surface 10 directed toward the friction roller 11.

In operation it will be observed that a cable passing through the device in the direction of the arrow, as illustrated in Figure 1, is unobstructed. If, however, the direction of the cable is reversed as indicated by the arrow in Figure 2 it will carry with it the roller 11 as indicated to a position above the cam wedge 9. If then the direction of the rope is reversed, as in Figure 2, the roller is carried above the cam wedge 9 as shown in Figure 2, thus placing those gripping members in position to automatically engage the cable or rope as shown in Figure 3, when the rope or cable resumes its original direction of travel. An upward knock on handle 8, either manual, or by engagement with some structural member not shown, will effectively release the rope or cable between the roller 11 and the arcuate friction surface 10 of the cam block, thus permitting said roller and cam member to resume the non-gripping positions illustrated in Figure 1.

Various modifications in the precise shape and arrangement of the parts will readily suggest themselves to those skilled in the art and the device can be secured to fixed members by screws or bolts associated with either the back member 1 or the side members 2, as desired.

Having thus fully described my invention, what I claim is:

1. Gripping device for controlling a rope or cable comprising a housing having a through

passage for a cable, said housing formed with oppositely disposed interior guide rails extending parallel with the passage, and opposed faces, one parallel with said guide rails, the other inclined to constitute a cam surface, a friction roller freely slidable between the guide rails and the parallel face of the passage, and a frictional cam member slidable between the rails and the inclined cam face for the purposes specified.

2. The device of claim 1 in which the frictional cam member has a trip member extending therefrom to the exterior of the housing.

SANFORD W. HERRINGTON.

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