Nov. 10, 1942. E. G. ABDELLA 2,301,842

HAND GRIP FOR USE ON ROPE TYPE SKI TOWS

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FIG. 2.

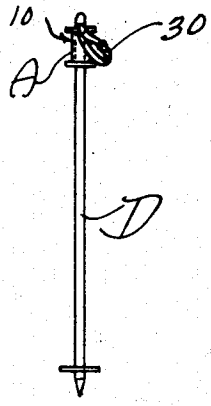


FIG. 1.

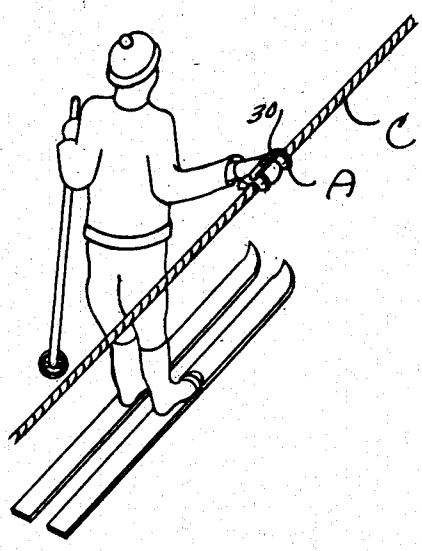
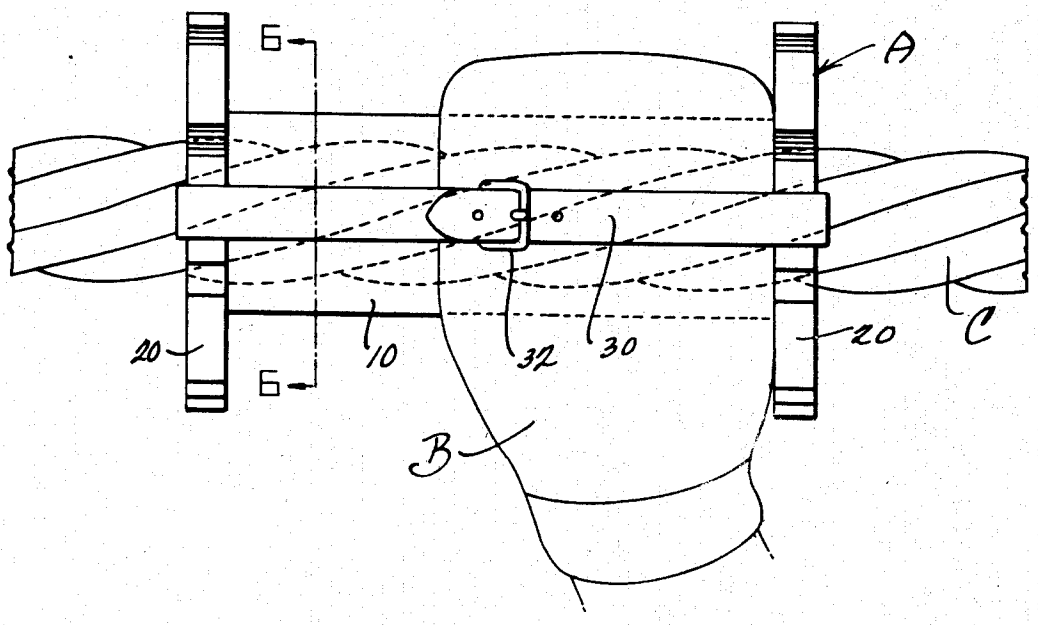


FIG. 3.



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FIG. 4.

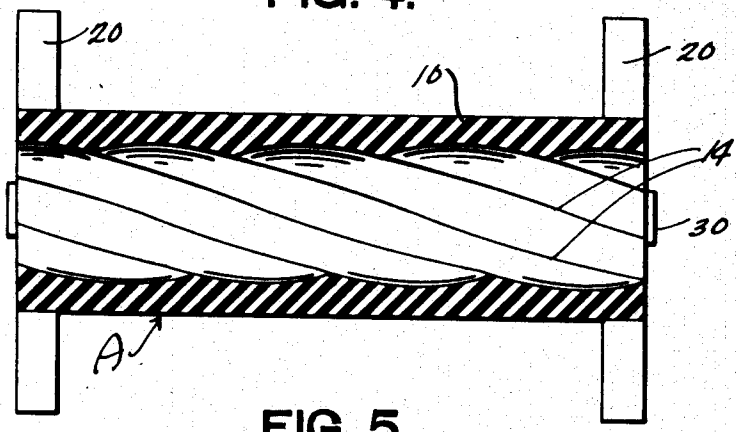


FIG. 5.

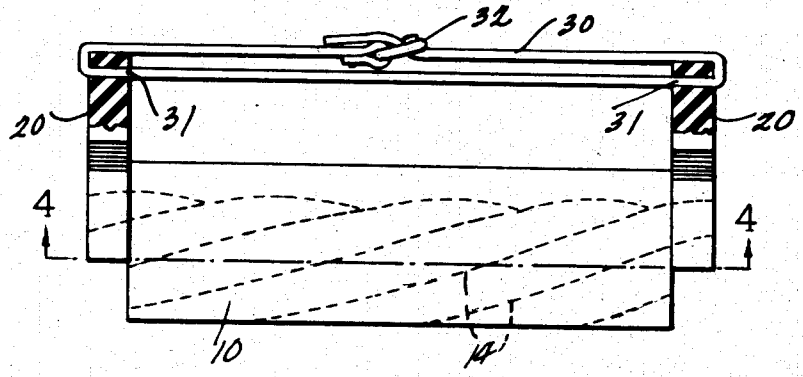


FIG. 6.

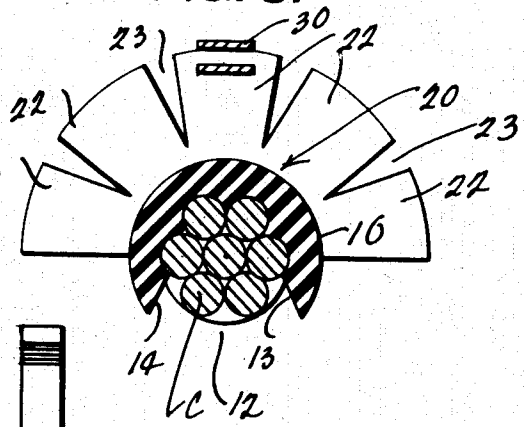


FIG. 7.

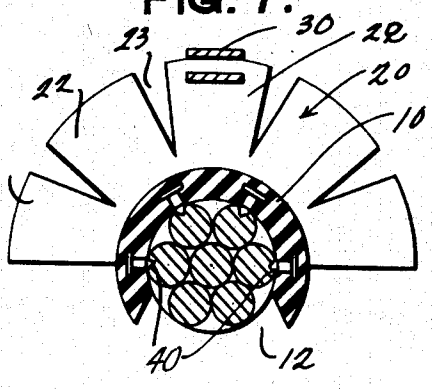
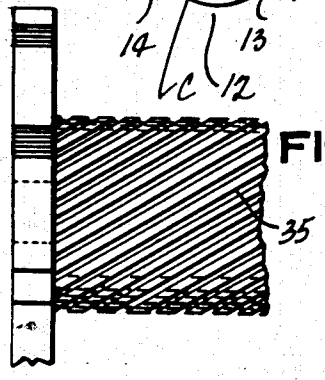


FIG. 8.



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HAND GRIP FOR USE ON ROPE TYPE SKI TOWS

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Application February 21, 1941, Serial No. 380,075

2 Claims. (Cl. 104—202)

This invention relates to improvements in ski-tow apparatus.

The primary object of this invention is the provision of a hand grip which may be used by skiers to facilitate the gripping of a tow rope or cable.

It is well known to those who participate in the sport of skiing, where return cables or ropes are provided for hauling skiers up a steep slope, that it is very fatiguing to grip the tow cable for any length of time. That is true because mittens or gloves furnish poor gripping surfaces. Furthermore, tow cables of any length are subject to circumferential twisting and lateral vibration, so that it is very difficult to maintain a grip for any length of time. Tow ropes and cables are waxed and frequently become iced, so that sometimes the skier will encircle an arm about the rope or hold the rope against the body. All of this not only tends to produce muscular fatigue but also causes soiling of mittens, gloves and body garments. To overcome these disadvantages, I have provided an improved grip; which may or may not be formed as part of the glove of a wearer; which will enable individuals not only to have a larger gripping area upon the rope; and which will enable the rope to be firmly engaged with but little muscular effort.

A further object of this invention is the provision of an improved gripping means for skiers by means of which the skier may use a tow cable without liability of suffering rope burns.

Other objects and advantages of this invention will be apparent during the course of the following detailed description.

In the accompanying drawings, forming a part of this specification, and wherein similar reference characters designate corresponding parts thruout the several views,

Figure 1 shows a skier utilizing the improved hand grip upon a ski tow cable.

Figure 2 is a view showing how the improved grip may be used for holding onto the ski pole.

Figure 3 is an enlarged view showing the manner in which an individual grasps the improved grip in its association upon a ski rope or cable.

Figure 4 is a longitudinal cross sectional view taken thru the improved grip substantially on the line 4—4 of Figure 5.

Figure 5 is a vertical cross sectional view taken thru the improved grip.

Figure 6 is a transverse cross sectional view taken substantially on the line 6—6 of Figure 3.

Figure 7 is a view of the grip similar to Figure 6 but showing a modified cable gripping means.

Figure 8 is a fragmentary perspective view showing how the outer mitten or glove engaging surface of the grip may be grooved or serrated in order to facilitate the grasp of the wearer's hand upon the improved grip.

In the drawings, wherein for the purpose of illustration is shown only a preferred embodiment of the invention, the letter A may generally designate the improved grip which is adapted to be grasped in the palm of the mitten B of a wearer's hand for firm engagement upon a tow cable or rope C, or upon a ski pole D.

It is well known to those skilled in the art that ski ropes such as shown at C are relatively small in diameter, varying from 1" to 1¼". Frequently they are waxed and very often become coated with ice. They are continually moving longitudinally and laterally vibrating, as well as circumferentially twisting.

The improved grip A consists of an elongated segmental grip body 10 which is flexible under a fairly strong grip of an individual so that it can be compressed for engagement upon tow cables of various sizes. The body 10 inherently returns to its normal shape. It need not be as flexible longitudinally as transversely, and while preferably formed of rubber, leather, composition material, it may be formed of some plastics and metals. It is relatively strong and durable, and while the size is not important, it may average 6" in length. In cross section the segment extends thru an arc of over 190°, and leaves the opening designated at 12 in Figures 6 and 7 of the drawings, to laterally receive the tow cable or rope C. The facing surfaces 13 and 14 defining the opening 12 are divergently arranged from the cable receiving socket outwardly, to facilitate the slipping of the cable therein.

In the preferred instance, the inner surface defining the socket of the grip body 10 is provided with a calk surface in the nature of spiral grooves or convolutions 14 corresponding to the convolutions of the strands forming the tow cable or rope, and adapted to receive those strands therein, in the relation shown in Figure 6, so as to prevent circumferential and longitudinal slipping of the grip when it is applied upon the tow cable and compressed in the hand of a user. While size, as above mentioned, is relatively unimportant, the walls forming the grip body 10 are preferably ¼" thick; the opening 12 in width is generally from 1¼" to 1½", and the normal diameter of the socket formed in the grip body is approximately 1⅜", with the grip body in its inherent position.

As shown in the drawings, the grip body **10** at the ends thereof is preferably provided with end retaining flanges **20** to prevent the slipping of the mittened hand of the user off of the grip; thus obviating the necessity of the user compressing the grip too firmly in his or her hand. All of this eliminates muscular fatigue, as can readily be understood.

The flanges **20** are preferably each made up of segments designated at **22** in Figures 6 and 7 of the drawings. These segments are formed by V cutting the flanges at **23**, and of course these V-shaped cut out's are sufficiently deep to permit of the body **10** to be readily compressed and expanded. These end flanges **20** are normally from ⅜" to ½" in thickness and they may be integral with the material of the grip body **10**. Essentially they are sufficiently strong to prevent their easy bending endwise of the tow cable.

I prefer to provide a hand retaining and carrying strap **30**, shown best in Figures 5 and 6 of the drawings, which consists of a flexible piece of strap material threaded thru suitable openings **31** provided in the opposite flanges **20**; preferably thru the center segments **22**, as shown in Figures 6 and 7 of the drawings. A conventional buckle arrangement **32** may be employed in order to detachably retain the strap in position. The space between the strap and the outer surface of the grip body **10**, as shown in Figure 5, is sufficient to permit of the ready insertion of the mittened hand of the user.

If desired, I may externally flute, serrate or groove the mitten grasping surface of the hand grip **10**, as shown at **35** in Figure 8 of the drawings.

Figure 2 shows the application of the grip upon a ski pole. Manufacturers of skiing equipment could readily supply the pole with the grip detachably connected thereto. The interchangeable application of the grip to the pole and rope is quite obvious. The skier reaching the top of the ski tow can readily remove the grip and drop it into position on the ski pole to serve as a handle. The grip thus serves a double purpose.

It should be noted that the strip **30** is detachable, and it may be used to attach the grip to the waist, belt or pole during skiing.

As shown in Figure 7 of the drawings, the segmental-shaped grip body **10** may be provided with studs or spikes **40**, embedded or otherwise attached in the material of the grip body, with pointed ends extending beyond the inner surface of the grip body for biting into the material of the cable.

While I have above given, for illustration only, specific sizes for the improved tow rope grip, it is to be understood that the grip may be made in different sizes and with the parts of different dimensions, and the arrangement of parts and shape thereof is unimportant except insofar as limitations thereto are imposed in the claims.

I claim:

1. Ski tow equipment comprising a flexible hand engaging grip having a tow cable gripping surface provided with spiral grooves positioned to socket the cable strands therein and to prevent longitudinal and circumferential slipping of the said grip when it is grasped and pressed into the cable by the hand of a user.

2. A tow cable hand grip for skiers comprising an elongated hollow flexible body of transverse segmental formation having an internal socket adapted to receive a tow cable, hand retaining flanges externally upon the grip body at the ends thereof, each of said flanges comprising a plurality of relatively disconnected sections which will spread apart upon compression of the hand grip to facilitate application of the grip upon a tow cable or the like.

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