

W. GOEPEL.  
CABLE GRIP.  
APPLICATION FILED APR. 1, 1916.

1,201,169.

Patented Oct. 10, 1916.  
2 SHEETS—SHEET 1.

Fig. 1.

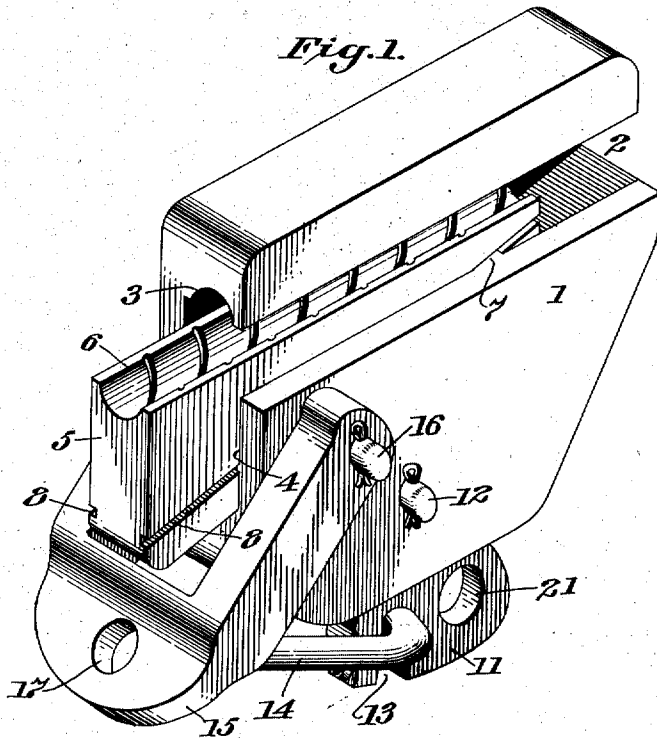


Fig. 3.

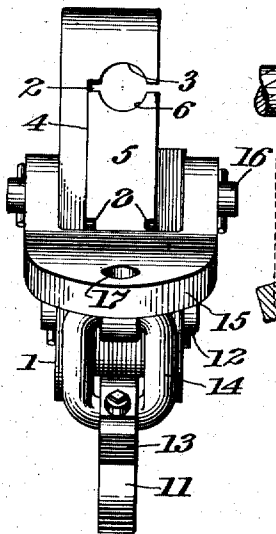
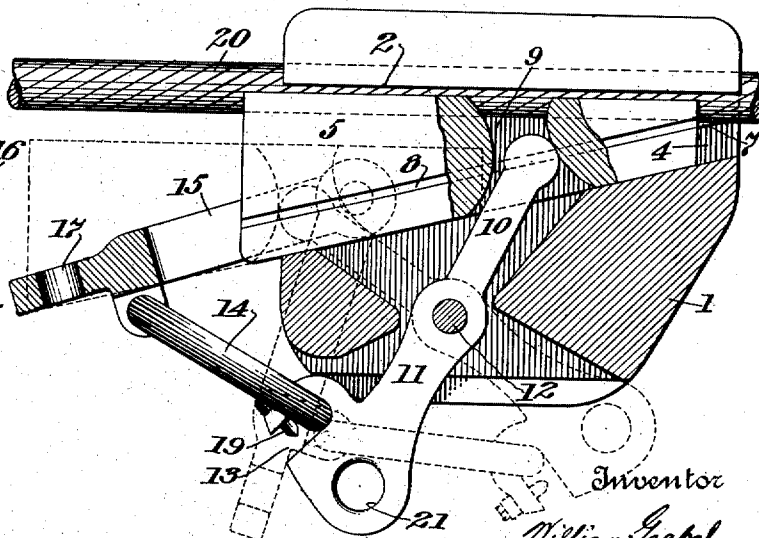


Fig. 2.



Inventor  
William Goepel  
by  
W. H. Finnerell  
Attorney

W. GOEPEL.  
CABLE GRIP.  
APPLICATION FILED APR. 1, 1916.

1,201,169.

Patented Oct. 10, 1916.  
2 SHEETS—SHEET 2.

Fig. 4.

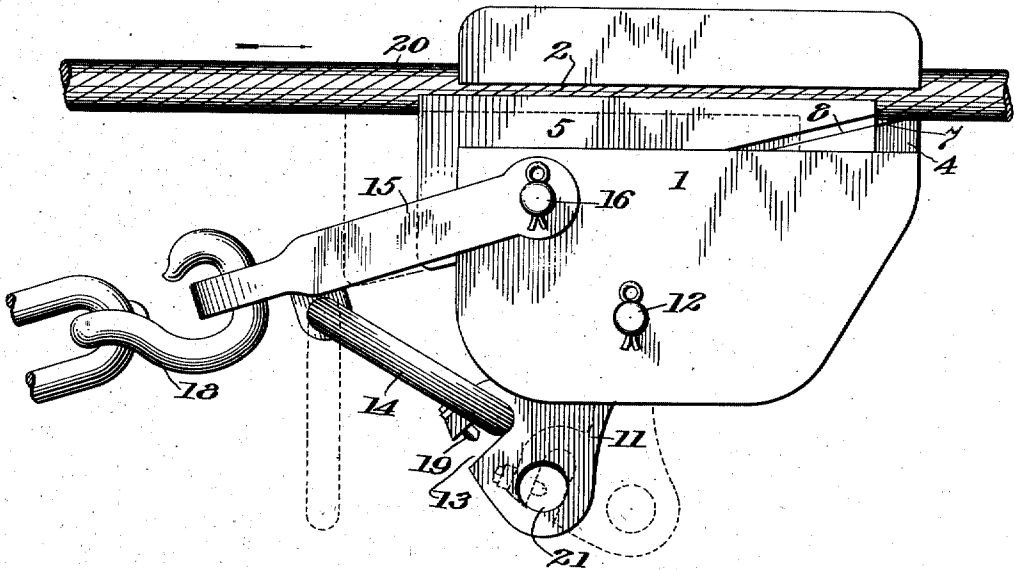
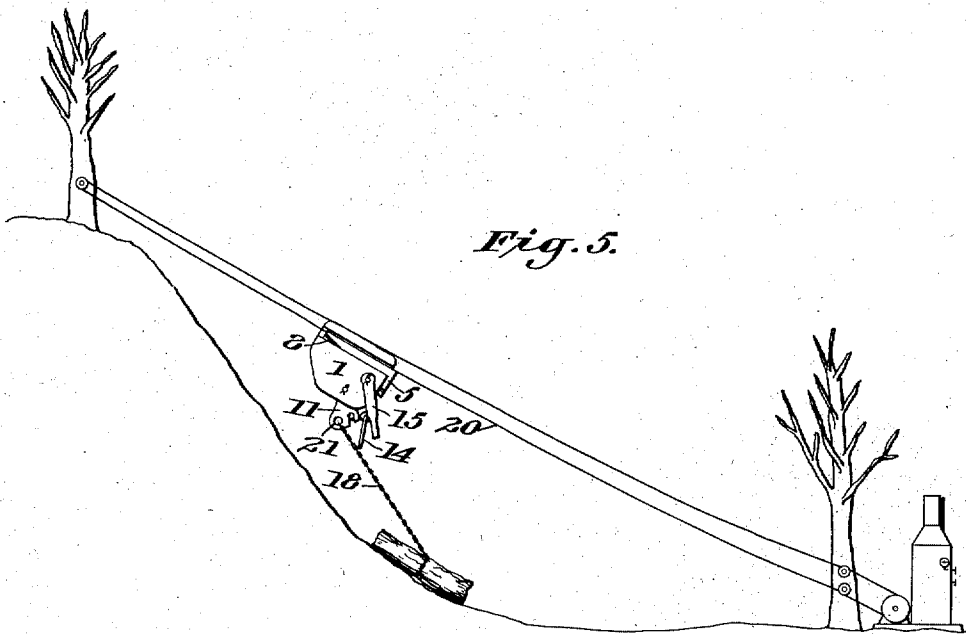


Fig. 5.



Inventor  
William Goepel  
by  
M. A. Stinson  
Attorney

# UNITED STATES PATENT OFFICE.

WILLIAM GOEPEL, OF STEVENSON, WASHINGTON.

## CABLE-GRIP.

1,201,169.

Specification of Letters Patent.

Patented Oct. 10, 1916.

Application filed April 1, 1916. Serial No. 88,368.

*To all whom it may concern:*

Be it known that I, WILLIAM GOEPEL, a citizen of the United States, residing at Stevenson, in the county of Skamania and State of Washington, have invented a certain new and useful Improvement in Cable-Grips, of which the following is a full, clear, and exact description.

The object of this invention is to provide a so-called grip or clamping device, by which a load, such as a log, to be conveyed from one place to another, may be conveniently connected to a traveling cable or conveyer so as to be thus transported, and may, with equal convenience, be disconnected from the cable as occasion may require. Various systems of arranging such cables or conveyers are in use, in some of which the main line cable runs from the forest where logs are obtained, down-hill or otherwise, to the place where the logs are to be delivered, to a donkey-engine or other power appliance, and a log being connected to the cable, the latter is drawn toward the engine and with it the log, and when the log is delivered it is disconnected from the cable and the latter hauled back by a haul-line to the starting point for another log. In some cases endless cables are used. The cables or conveyers are arranged overhead so as to make sure of their clearing stumps of trees and other obstructions. A common practice is to have a main line extending some distance into the woods or forest, and provided with butt-chains on its ends and a trip-line or haul-back which is used to haul the main line back into the woods after it has been used to drag a log out of the woods. In accordance with this practice, only one log, or, at most, two logs can be dragged out at a time, and thus the expense of operating is high.

The present invention is designed to admit of dragging out a large number of logs at once, without danger of kinking or crushing the line, and in such way that the logs may be applied to the line or taken off of it at any time or place and without stopping the line, the greater pull on the connecting device or grip serving to strengthen its hold on the cable or conveyer. But the present invention is not confined in use to any particular system of cable or conveyer, nor is it restricted to use in logging, as it may be advantageously used as a grip in cable sys-

tems for transporting or transferring a great variety of articles or materials.

The invention consists of a grip or clamping device, having a relatively fixed cable-engaging element, and a complementary movable element, this movable element being operated by a trigger which may be connected with a clevis pivoted to the grip and to which the load is applied and which otherwise is wholly independent of the movable element, said trigger capable of independent operation so as to attach the grip to the cable and disconnect it therefrom at pleasure, as I will proceed now more particularly to explain and finally claim.

In the accompanying drawings illustrating the invention, in the several figures of which like parts are similarly designated, Figure 1 is a perspective view of the grip, partly open. Fig. 2 is a side elevation, partly in vertical section and broken away to expose the interior, the full lines showing the grip closed upon a cable and the dotted lines showing it released. Fig. 3 is an elevation looking at Fig. 2 from the left-hand side. Fig. 4 is a side elevation, in gripping position, with the clevis and trigger connected as shown by full lines, and disconnected as shown by the dotted line link at the free end of the clevis. Fig. 5 is a sketch of a conventional arrangement of logging cable, (proportions being disregarded) in which the log is shown as chained to the trigger instead of to the clevis.

The grip comprises a casing 1 of any suitable construction, provided with a side opening 2 by which it may be applied to a cable or conveyer, and having on a stationary or fixed part a cable-engaging groove 3 extending fore and aft. Below this groove is an interior cavity 4 in which is arranged a sliding wedge-shaped block 5, provided with a complementary fore and aft groove 6 to cooperate with the groove 3 in engaging the cable or conveyer. These grooves may be roughened or otherwise prepared to increase the hold on the cable. The block 5 is engaged with the opposite sides of the casing so as to be guided in its fore and aft movements therein, and as one suitable means to this end, I have shown the sides provided with inclined tongues 7 which engage corresponding grooves 8 in the block. This block is provided with a transverse opening 9 which is engaged by

a finger 10 on a trigger 11 secured in an opening in the casing by a transverse pivot 12, and this trigger is provided with a hook or eye 13 adapted to be engaged by means of a link 14 with a clevis 15, which last is pivoted at 16 to the sides of the casing and has an eye 17 by which one end of a chain 18 may be applied to it, the other end of the chain being adapted to be applied to the log or other load to be transported. The link 14 may be detachably connected with the trigger or hook 13 by means of a spring pin or other movable device 19.

The grip or clamping device is opened as shown in Fig. 1, and applied laterally to the cable or other conveyer 20, as indicated in Fig. 2, and then by a movement of the trigger toward the right, or in opposition to the direction of travel of the cable, the block 5 is moved toward the cable and the cable clamped between the block and the portion of the casing containing the groove 3. This movement of the trigger may be effected by the strain placed upon the clevis causing the clevis to move toward the cable and the link 14 transmitting this motion to the trigger. The trigger has an eye 21 to which a trip-line may be applied so as to reverse the motion of the block and effect the disengagement of the grip with the cable whenever desired and whether the cable is taut or slack. In some instances the load may be applied to the trigger itself by connecting it with the eye 21 of the trigger, and such an arrangement is indicated in Fig. 5 where as shown, the link 14 is disconnected from the trigger and the clevis left unused.

With the grip of this invention it is possible to apply as many logs or other loads along the cable as there are available grips, instead of limiting the use of the cable, as in some present arrangements, to one or two logs or loads. This grip will not crush or kink the cable, and may be applied to or taken off of the cable at any place and even while strain is on the line; and the greater the pull on the cable the stronger is the hold of the grip on the cable. As long as there is a pull on the cable toward the power or rollway, the grip will remain tight, and as soon as there is a slack up in order to haul the cable back, the load remains where it was left and is again taken up when the pull is once again started ahead.

As already sufficiently indicated, the invention is applicable to cable or conveyer arrangements for transporting logs and other loads; and it is to be understood also that variations in details of construction are permissible within the principle of the invention as herein claimed. And in this connection it is to be noted that the clevis is not applied to either clamping element in itself considered, but to the casing con-

taining the clamping elements, and that the active clamping element is controllable independently of the clevis.

What I claim is:—

1. A cable grip, comprising a casing having a stationary cable-engaging element, a movable cable-engaging element adapted to be moved into cable-engaging relation to said stationary element, a trigger mounted in said casing and engaging said movable element, a load-attaching clevis pivoted to said casing, and a link for detachably connecting said clevis and trigger whereby when a load is attached to said clevis and the clevis and trigger are connected said movable element will be moved into cable-engaging relation to the stationary element through the action of the trigger, and when they are disconnected the movable element may be moved out of cable-engaging relation through said trigger while the load is still attached to said clevis.

2. A cable grip, comprising a casing provided with a stationary cable-gripping groove, a longitudinally movable cable-gripping block arranged in said casing in alignment with the said groove and itself provided with a complementary groove, means on the casing and block to guide the movement of the block into and out of cable-gripping relation with the groove in the casing, a trigger pivotally mounted in the casing and engaging the block, a clevis pivoted to the casing independently of the block and to which a load is applicable, and a link for connecting the clevis and trigger.

3. A cable grip, comprising a casing provided with a stationary cable-gripping groove, a longitudinally movable cable-gripping block arranged in said casing in alignment with the said groove and itself provided with a complementary groove, means on the casing and block to guard the movement of the block into and out of cable-gripping relation with the groove in the casing, a trigger pivotally mounted in the casing and engaging the block, a clevis pivoted to the casing independently of the block and to which a load is applicable, a link for connecting the clevis and trigger, and means for detachably connecting the link with the trigger.

4. A cable grip, comprising a casing provided with a stationary cable-gripping groove, a longitudinally movable cable-gripping block arranged in said casing in alignment with the said groove and itself provided with a complementary groove, interengaging means on the casing and block to guide the movement of the block into and out of cable-gripping relation with the groove in the casing, and a trigger pivotally mounted in the casing and engaging the block, said trigger provided with an eye to receive a trigger-moving medium.

5. A cable grip, comprising a casing having a lateral opening, a grooved cable-engaging element adjacent to said opening, a movable block slidably arranged within the casing in alinement with the grooved portion of the casing and provided with a groove alined with the groove in the casing and having a tongue and groove connection with the casing and a transverse cavity, and a trigger pivotally mounted within the casing and provided with a finger engaging said cavity in the block and an operating end projecting outside of the casing and adapted to receive a trip mechanism.

6. A cable grip, comprising a casing having a lateral opening, a grooved cable-engaging element adjacent to said opening, a movable block slidably arranged within the casing in alinement with the grooved portion of the casing and provided with a groove alined with the groove in the casing and having a tongue and groove connection with the casing and a transverse cavity, a trigger pivotally mounted within the casing and provided with a finger engaging said cavity in the block and an operating end projecting outside of the casing and adapted to receive a trip mechanism, a clevis pivotally mounted on the casing, and a link detachably connecting the clevis and the operating end of the trigger.

7. A cable grip, comprising a casing having a stationary cable-engaging element and a movable cable-engaging element, means connected with said casing to which a load

may be attached, means for operating said movable cable-engaging element, and means for detachably connecting said load-attaching means and said means for operating said movable cable-engaging element.

8. A cable grip, comprising a casing having a stationary cable-engaging element, a wedge-shaped cable-engaging element adapted to slide into engagement with a cable to grip it by coaction with said stationary element, load-attaching means on said casing, means for moving said wedge-shaped element, and means for detachably connecting said load-attaching means and said means for moving the wedge-shaped element.

9. A cable grip, comprising a casing having a stationary cable-engaging element and an inclined slideway, a movable cable-engaging element mounted in said slideway and adapted to slide into cable-engaging relation with said stationary cable-engaging element, a clevis pivoted to said casing, a trigger pivoted in said casing for operating said movable element, and means for detachably connecting said clevis and trigger whereby when a pull is exerted upon said clevis said movable element will be moved into cable-gripping relation with said stationary element.

In testimony whereof I have hereunto set my hand this 25 day of March A. D. 1916.

WILLIAM GOEPEL.

Witnesses:

GEO. E. O'BRYON,  
W. E. MILLER.

Corrections in Letters Patent No. 1,201,169.

It is hereby certified that in Letters Patent No. 1,201,169, granted October 10, 1916, upon the application of William Goepel, of Stevenson, Washington, for an improvement in "Cable-Grips," errors appear in the printed specification requiring correction as follows: Page 1, line 63, for the letters "wth" read *with*; page 2, line 108, claim 3, for the word "guard" read *guide*; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 31st day of October, A. D., 1916.

[SEAL.]

Cl. 24—136.

R. F. WHITEHEAD,  
*Acting Commissioner of Patents.*