(No Model.)

C. J. HERRBERG.

CABLE ATTACHMENT.

No. 538,075. Patented Apr. 23, 1895.

Fig. 1.

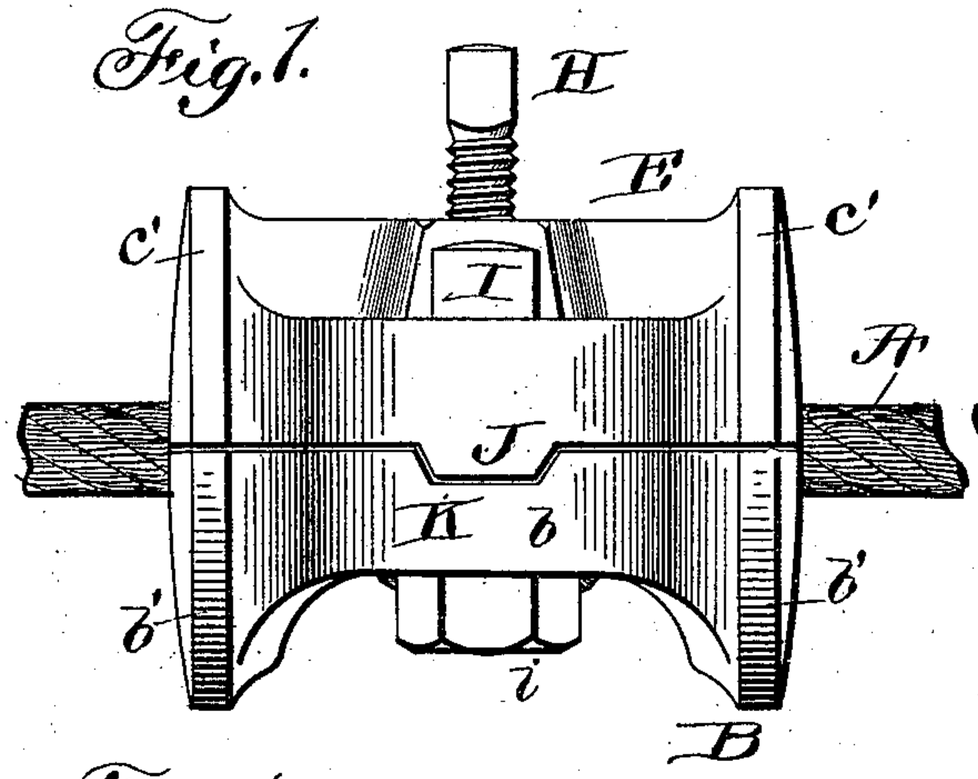


Fig. 2.

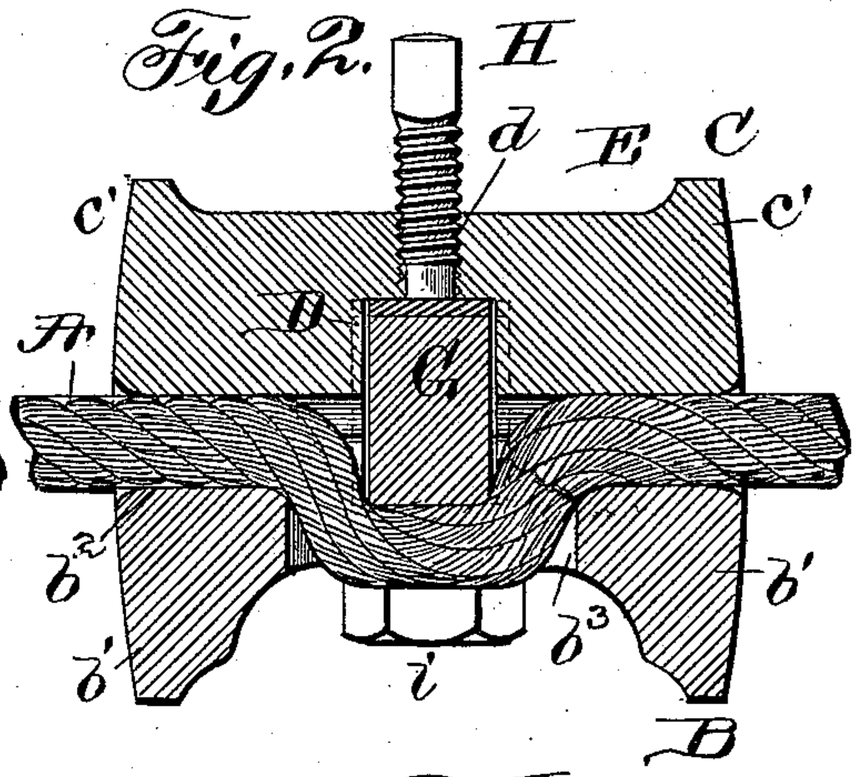


Fig. 4.

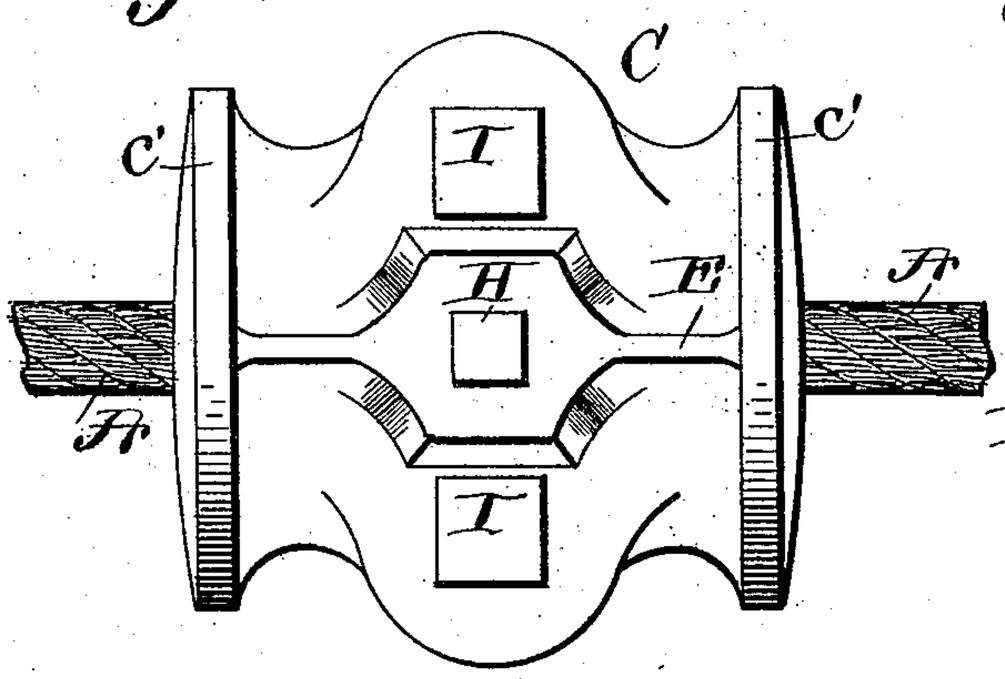


Fig. 3.

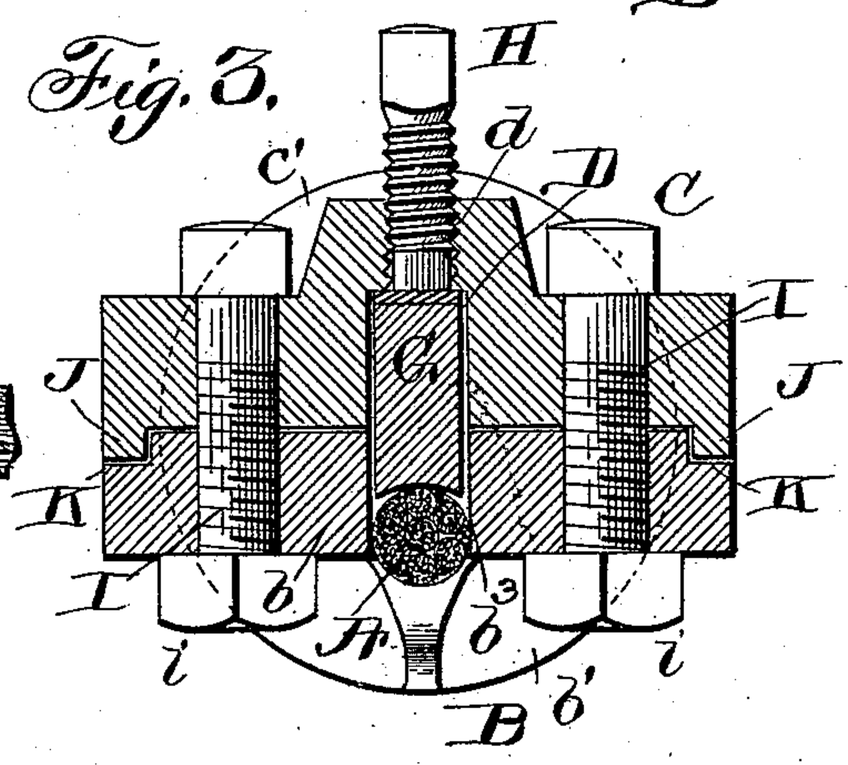


Fig. 6.

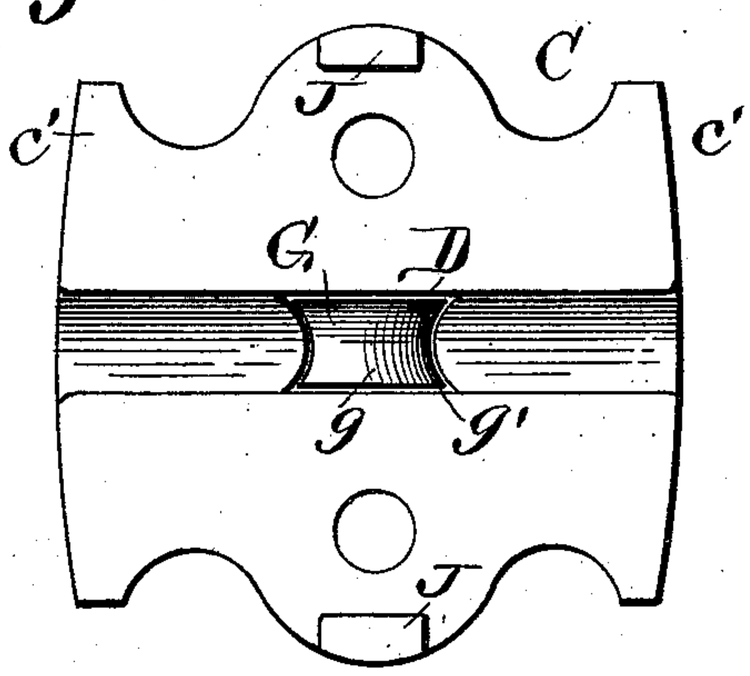
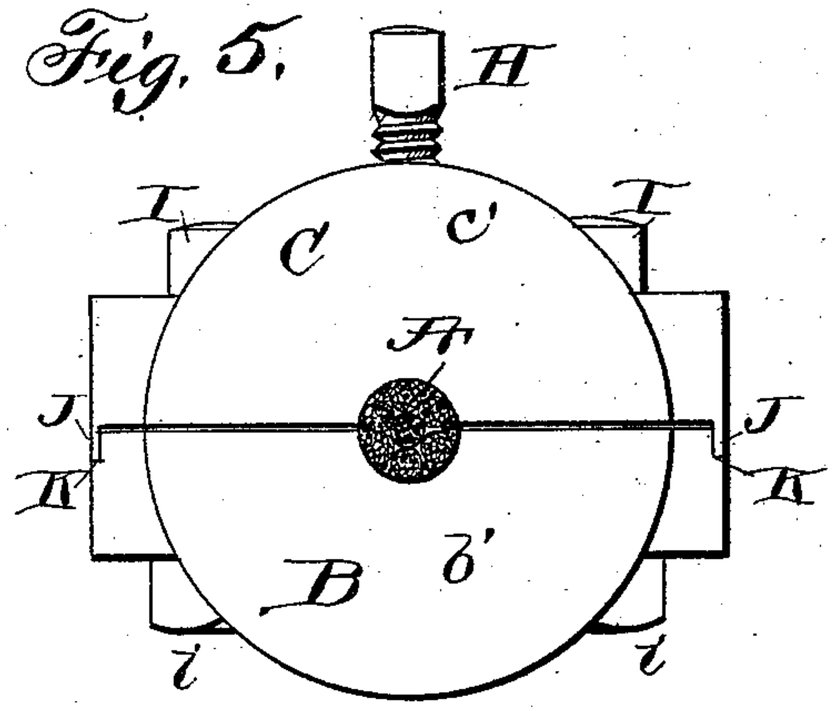


Fig. 5.



Witnesses;
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W. H. Reid.

Inventor:
Charles J. Herrberg
by
H. W. Bliss
Atty.

UNITED STATES PATENT OFFICE.

CHARLES J. HERRBERG, OF COLUMBUS, OHIO, ASSIGNOR TO JOSEPH A. JEFFREY, OF SAME PLACE.

CABLE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 538,075, dated April 23, 1895.

Application filed August 30, 1894. Serial No. 521,733. (No model.)

To all whom it may concern:

Be it known that I, CHARLES J. HERRBERG, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Cable Attachments; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Figure 1 is a side view of a portion of a cable carrier sufficient to illustrate the manner of applying my invention to practical use. Fig. 2 is a central longitudinal section. Fig. 3 is a central transverse section on the line x—x of Fig. 2. Fig. 4 is a plan view. Fig. 5 is an end view of one of the attachments. Fig. 6 is a view of the under side of the upper half of the attachment.

In the drawings A represents a cable or rope of the sort now largely in use for the purpose of transmitting power or for hauling or conveying materials from one place to another.

My invention relates more particularly to improvements in cable mechanism for hauling or power transmitting in which use is made of "attachments" or "sprockets" secured at intervals to the cable or rope for either of several purposes, as for positively engaging with the sprocket wheel or for carrying the flights or conveyer blades which engage with and carry the material being transported.

It has been long well known that wire rope or cable is in many respects superior to the chains which have been generally used; but the principal disadvantage incident to the rope mechanisms has been due to the fact that the attachments or sprockets are liable to slip along the rope, and that the rope itself is liable to stretch. In either case the intervals between the attachments or sprockets are varied to such an extent that the "pitch" requisites are lost, and the cable thereafter refuses to remain properly on the wheels, the teeth of which latter are spaced apart with a certain relationship to the attachments or sprockets on the cable. If the distances between the cable sprockets become greater than those between the teeth on the wheel, the sprockets of course fail to register correctly on the periphery of the wheel and instead of entering the recesses behind the wheel teeth, ride up on the elevated part of the rim and as a result the rope is thrown off.

The object of the present invention is to so construct the sprocket or attachment that, it shall first be held against slipping along the cable, and, second, so that the distances between the sprockets can be shortened in case the rope should lengthen from stretching.

I have shown that form of sprocket or attachment which I at present prefer. It is made up of two separable halves, or blocks, B and C, preferably of cast iron, and having the shape illustrated. The part B has the central body part b and the end parts b' which are preferably semi-circular expansions from the body. Along its inner surface there is formed a groove b^2 and at the center there is an aperture or passage b^3 extending from the groove b^2 toward or to the outer surface. This passage b^3 is in the vertical longitudinal planes of the groove, and communicates therewith for a purpose to be described. The other half or block C is formed with semi-circular expansions c' at the ends which lie opposite to those at b'. They are joined by a central web or fin E which serves to strengthen the bearing flanges or expansions c', and to lock the clamping bolts against rotation, and also to support the adjusting screw to be described. At the center of this part E there is a socket or cavity D, and an aperture d extending from the socket to the outer surface through the web or fin E. In the cavity D is placed the push block G it being adapted to move up and down therein. Its inner end is curved as shown at g and provided with a groove g'.

H is a set screw which passes through the aperture d inward toward and bears against the push block G. By these means the cable can be bent and powerfully gripped, the bending and gripping effectually preventing any slipping of the attachment longitudinally. The aperture b^3 is directly below the push

block G so that the rope will have plenty of room in which to move under the pressure from the screw.

Not only can the gripping of the cable be thus secured, but it will be seen that a relatively long part of the rope can be drawn in from outside of the ends of the block so that the "pitch" distances of the series of attachments can be readily and accurately adjusted at any time. The proper distance between them being known it can be easily attained by moving the block G in one direction or the other, thereby lengthening or shortening the parts of the rope which lie between the attachment being adjusted, and those adjacent.

The two halves B C are firmly clamped together by the bolts I I and the nuts *i i*. The two halves are prevented from rocking or slipping on each other by means of the projections J J on one fitting in the sockets or cavities K in the other. Instead of these pins or equivalents may be used.

The bolts I I may be of one pitch of thread and that at H of another; and consequently after the two halves B C of the attachment have been drawn together by them, the gripping pressure may be still further increased, for it will be seen that the rope is tightly clamped between the end portions of the two halves. When it is desired to take up the rope so as to vary the distance between two attachments, the nuts *i* must be unscrewed on bolts I so as to loosen the halves B and C on the cable. Then the bolt H is screwed farther in, and the halves again clamped to the cable, the follower G pressing the bent portion of the cable farther in the aperture.

I am aware of the patent to D. J. Sheldrick, No. 509,251, dated November 21, 1893, and I do not claim such a construction as therein shown, as of my invention. No provision is made in that patent for taking up the cable to vary the distance between the attachments, that being the essential feature and object of this invention.

What I claim is—

1. The herein described cable attachment having the half, or block, B, formed with a rope groove on its inner face and with the aperture b^3, in the vertical longitudinal planes of the groove in combination with the opposing half, or block, C, having the push block G opposite the said aperture, the screw H, and the bolts I I, supplemental to the said screws H substantially as set forth.

2. The herein described sprocket attachment for cables having two halves or blocks B C secured together by bolts I I, a push block or follower supplemental to the parts aforesaid and adapted to bear against the cable, and the screw H for forcing said block or follower toward the cable to effect a bending pressure on the latter supplemental to that of the bolts I I, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

CHARLES J. HERRBERG.

Witnesses:

JAMES FITZER,

R. MOSES HUTCHINS.