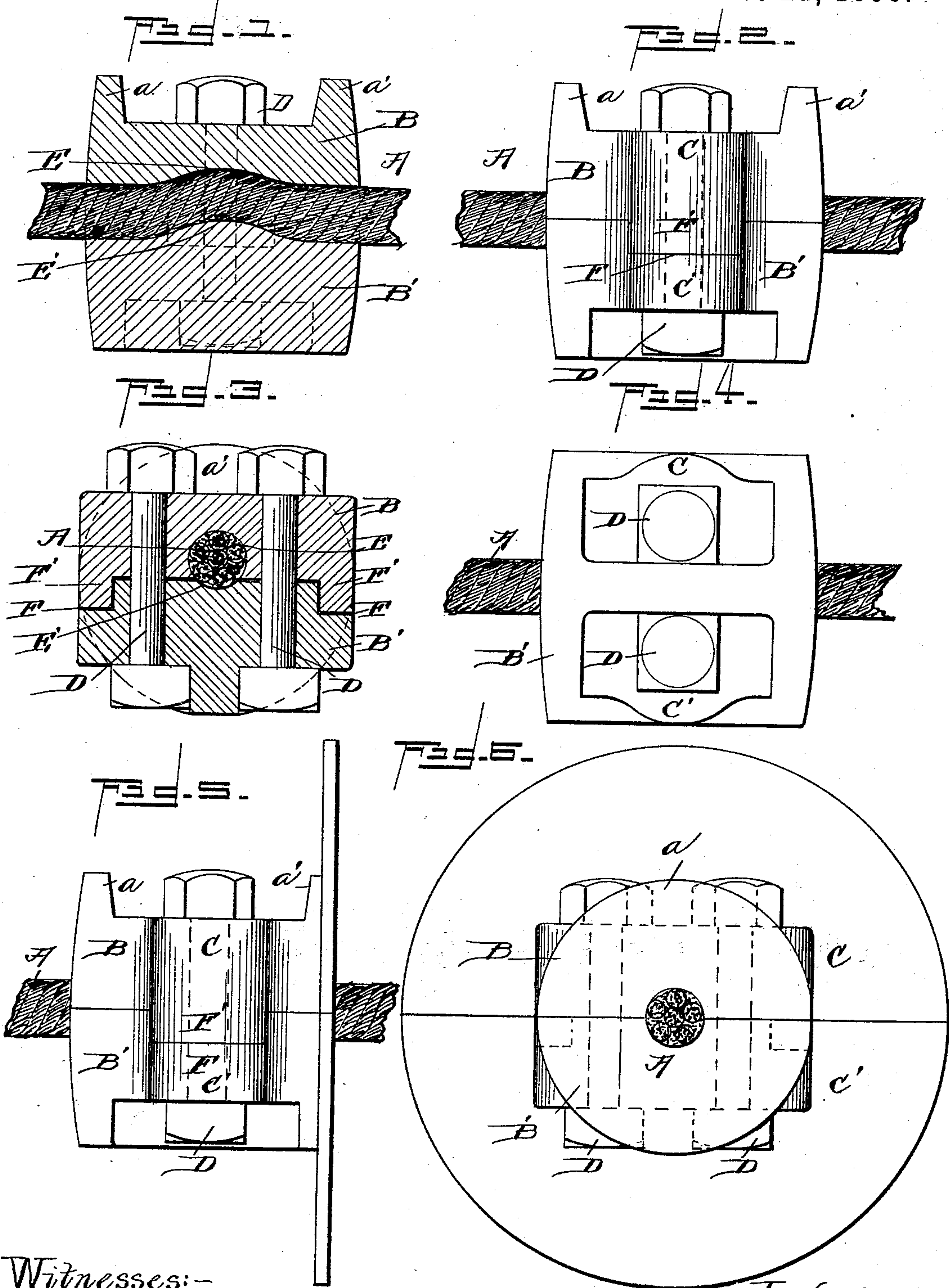


(No Model.)

D. J. SHELDRIK.
CONVEYER.

No. 509,251.

Patented Nov. 21, 1893.



Witnesses:-
Chas H. LaPorte.
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UNITED STATES PATENT OFFICE.

DAVID J. SHELDRIK, OF COLUMBUS, OHIO, ASSIGNOR TO JOSEPH A. JEFFREY, OF SAME PLACE.

CONVEYER.

SPECIFICATION forming part of Letters Patent No. 509,251, dated November 21, 1893.

Application filed March 22, 1893. Serial No. 467,135. (No model.)

To all whom it may concern:

Be it known that I, DAVID J. SHELDRIK, 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 Conveyers, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a longitudinal section of a device embodying my improvements. Fig. 2 is a side elevation. Fig. 3 is a face view of the carrier disk. Fig. 4 is a top view. Fig. 5 is a side view, and Fig. 6 a face view of an attachment having a scraper flight formed with, or secured to, it.

In the drawings A indicates a wire rope or cable which may be of dimensions suitable to accomplish the purposes intended. Heretofore carriers and conveyers have been constructed of such cable or rope, together with attachments of such nature that the device was either capable of transmitting power from one point to another, the attachments being adapted to engage with driving and driven wheels or of carrying a flight, scraper, or conveyor bar adapted to engage with materials of various sorts, and to propel them from place to place. But serious trouble has been experienced in the using of the mechanisms of this sort with which I am acquainted, mainly owing to the fact that, from one cause or another, the attachment has become loose upon the cable. In some cases this has been due to the fact that the two metallic castings or halves of the hub part which fit around the cable have been constructed only so as to be connected by the bolts which pass from one side to the other; and the strains and movements of the parts of the attachment when at work have resulted in a loosening of the bolts and nuts.

One of the objects of the present invention is to prevent the bolts or nuts from being affected by the movements of the attachment halves when the mechanism is in motion; and I accomplish this by forming recesses or sockets in one half of the attachment, and upon the other there are corresponding projections, lugs or pins adapted to fit into the said recesses or sockets. The attachment shown is made of the two halves B and B'.

These are preferably made of cast iron, and at each end of each half there is a semi-circular flange of such shape and character that when the two halves are bolted together there shall be produced at each end of the attachment a circular disk which can act to engage suitably with the teeth or radial walls or shoulders on the wheel over which the cable passes. There are also laterally projecting flanges as at C, C', of the nature of ears which are perforated to receive the clamping bolts D, D; the aforesaid flanges at the ends being indicated by *a* and *a'*. The attachment is formed with an aperture extending longitudinally through it for the reception of the wire rope or cable. Heretofore these apertures have been formed with ribs, corrugations, recesses or indentations, in their walls, for the purpose of obtaining a grip or bite upon the cable. But even when these means are present reliance cannot be placed upon them for obtaining the requisite grip, and the attachments begin to yield along the cable very soon after they are put to work. This I obviate by forming a relatively deep recess E in one of the halves of the attachment and forming in the other half a projection, or inward swell as at E'. Then when the bolts D D are drawn firmly in place, the swell or projection E' acts to crowd the cable into the recess E and form a bend as shown at A', which although not sharp enough to mar or weaken the cable, is nevertheless sufficient to increase the grip of the bolts to such an extent that the cable will under ordinary circumstances break before the attachment will slip. This increased grip however would be liable to be lost at any time if it were possible for the bolts or nuts to loosen; which loosening however is effectually prevented by the projections and sockets above referred to. The sockets are indicated at F, and the lugs or projections at F'. When the parts are firmly drawn together the projections fit in the sockets or recesses in such way that there can be no slip of one half upon the other as this is prevented by the interlocking of the shoulders or walls provided by the lugs on one half and sockets on the other.

The importance of the above features will be readily recognized by those acquainted

with conveyers of this type. It has long been recognized that for many purposes, particularly where carriers or conveyers of great length were needed the wire rope or cable was much preferable to chains, because of the cheapness with which the mechanism can be constructed, the weight and strength of the parts in the two cases being equal. But it has also been found that the securing of the power imparting, or the material propelling attachment, has been a matter of such difficulty that these conveyers have as yet been introduced only to a limited extent.

An attachment substantially similar to that above described can be easily modified in such way as to provide a scraper or push plate adapted to carry coal, grain, or any other of numerous materials along a trough, or up or down through a tube of any of the well known sorts. To accomplish this it is merely necessary to form a plate at or behind the flange a' at the end of the above described attachment. Preferably the operative face of the pushing disk is somewhat behind the wheel-engaging face, so as to be relieved of pressure and strain at the time the attachment is in engagement with the wheel.

There can be more or less modification without departing from the essential features characteristic of the invention.

I am aware of the fact that conveyers or carriers having some of the general features of the invention have been heretofore used or suggested, as, for instance, shown in Patent No. 331,562, to D. Shortsleeve, dated December 1, 1885; but such constructions illustrate the facts above referred to concerning the liability of one half of the attachment to twist or turn relative to the other, with a loosening of the bolts or nuts as the result.

What I claim is—

1. In a cable conveyer, the combination with the wire cable, of the attachment formed in halves, each of which partially surrounds the cable, the bolts which clamp said halves together, one half having a recess for the cable,

the other half having an opposing projection or enlargement E' adapted to bend the cable in the said recess, the one half having sockets F , and the other half having opposing lugs or projections F' , substantially as set forth.

2. In a cable conveyer, the combination with the wire cable, of the attachments each formed in halves, each of which halves partially surrounds the cable, the bolts which clamp said halves together, one of said halves formed with one or more sockets F , and the other of said halves formed with opposing lugs or projections F' adapted to fit into the said recesses or sockets whereby the halves of the attachment are prevented from slipping or rocking on each other and loosening of the bolts and nuts is avoided, substantially as described.

3. In a cable conveyer, the combination with the wire cable, of the attachment formed in two sections, and means for securing said sections together one of said sections having a groove, and a recess adapted to receive the cable, and the other section having a projection which engages with the cable opposite the recess and forces it therein when the said sections are clamped together, substantially as set forth.

4. In a cable conveyer as herein described, the combination with a wire cable, of the attachment formed in two sections, one section having a groove, and a recess extending below the groove to receive the cable, and the other section having a groove, and a projection opposite to the said recess, and bolts parallel to the plane of said recess and projection, arranged substantially as set forth, whereby when said sections are drawn together by the bolts, the cable is bent into the said recess as described.

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

DAVID J. SHELDRIK.

Witnesses:

CHARLES W. MILLS,
J. S. DOE.