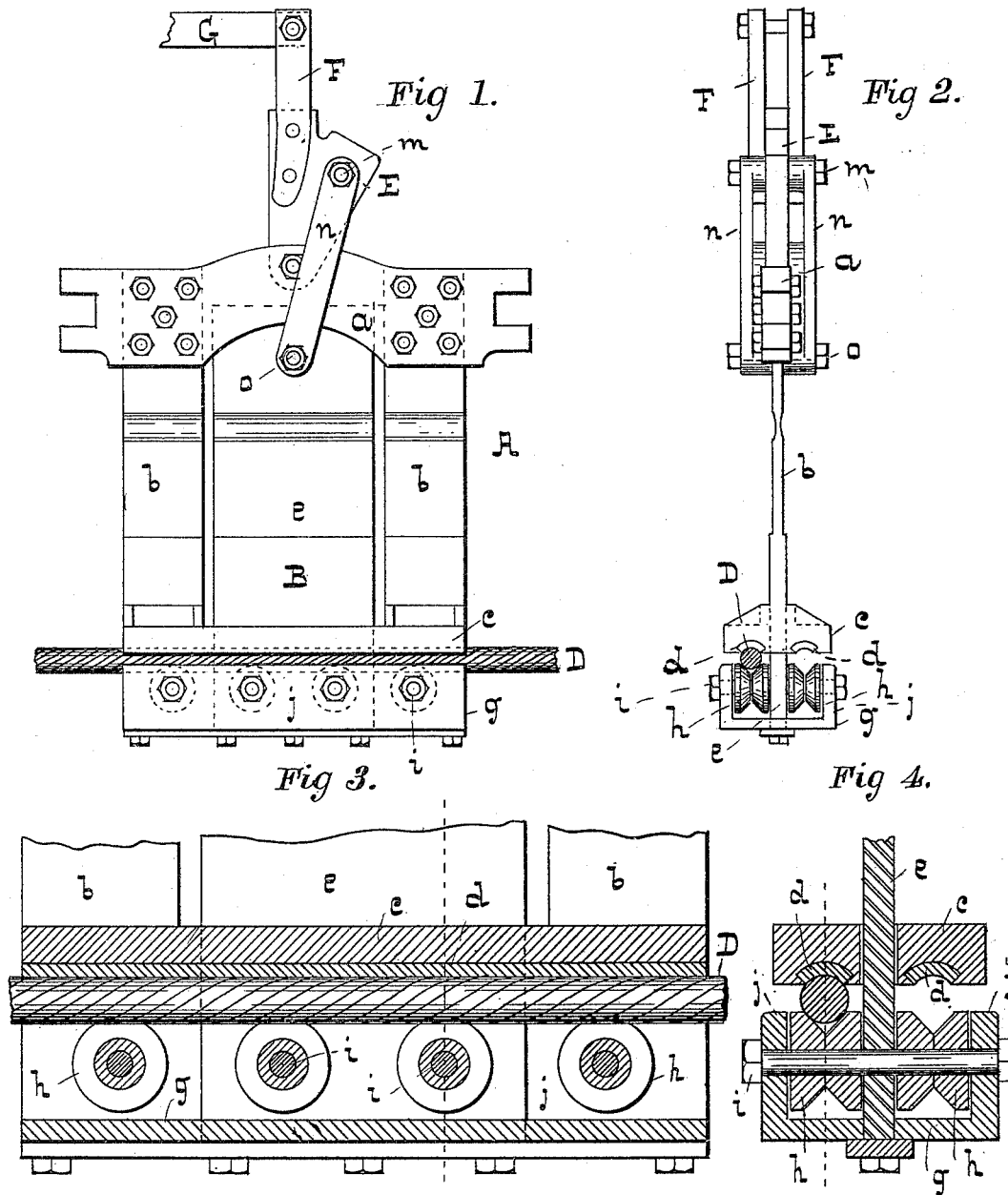


(No Model.)

R. A. McCAULEY.
GRIPPING DEVICE FOR CABLE RAILWAYS.

No. 491,439.

Patented Feb. 7, 1893.



-WITNESSES-

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UNITED STATES PATENT OFFICE.

REUBEN A. McCAULEY, OF BALTIMORE, MARYLAND.

GRIPPING DEVICE FOR CABLE RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 491,439, dated February 7, 1893.

Application filed July 29, 1892. Serial No. 441,562. (No model.)

To all whom it may concern:

Be it known that I, REUBEN A. McCAULEY, of the city of Baltimore and State of Maryland, have invented certain Improvements in
5 Grip Mechanism for Cable Railways, of which the following is a specification.

In the description of the said invention which follows, reference is made to the accompanying drawings forming a part hereof and
10 in which,—

Figure 1 is an exterior side view of the gripping mechanism, and Fig. 2 an edge view of the same. Figs. 3 and 4 are enlarged sections of parts of the apparatus.

Referring to the drawings, A represents the fixed portion of the grip consisting of the horizontal plate *a* which is secured immovably to the frame work of the car, the vertical plates *b* bolted to the horizontal plate *a*, and
20 the upper jaw *c* cast to the vertical plates *b* and carrying the steel bushes *d*.

B represents the movable portion or member of the grip, consisting of the vertical plate *e* the upper end of which is adapted to slide
25 between the vertical plates *b*. The lower portion of the plate *e* passes through a slot in the jaw *c* and is provided at the bottom with the jaw piece *g*. This jaw piece has a series of split grooved rollers *h* held in place by
30 means of bolts *i* which pass through them and the side plates *j* of the lower jaw. The split grooved rollers are directly under the steel bushes *d* of the upper jaw *c* so that the cable which is represented by D may be gripped
35 between them and the said bushes.

The object in having two sets of rollers and bushes is to admit of the reversal of the grip when one side thereof shall have become worn and thereby rendered inoperative.

40 The means for drawing up the movable portion of the grip, consists of a plate E piv-

oted to the horizontal plates *a* and provided with two bars F between which the rod G leading to the hand mechanism is pivoted. At one side of the center line of the plate E 45 is a bolt *m* to which links *n* are pivoted. These links are also pivoted to the plate *e* of the movable portion of the grip by means of a bolt *o*. When the rod G is pulled, the pivotal bolt *m* is slightly raised which draws up 50 the lower jaw *g* and brings the split rollers tightly against the under side of the cable. In this operation, the split rollers are separated and the inner sections are forced against the plate *e* and the outer ones against the side 55 plates *j* of the lower jaw, and considerable friction is thereby produced. With this arrangement the cable need not be drawn so tightly in contact with the steel bushes as is necessary when the lower jaw is provided 60 with steel bushes corresponding to those in the upper jaw, and wear of the cable and the steel bushes is greatly reduced.

I claim as my invention:

1. In a gripping mechanism, the lower jaw 65 thereof provided with split rollers adapted to separate as they are brought into contact with the under side of the cable and their sides forced out into contact with unyielding portions of the gripping mechanism, substantially as specified. 70

2. A cable grip having one of its jaws formed of one or more grooved rollers, each of which is formed in two sections, and friction plates against which said sections are forced during 75 operation—substantially as set forth and described.

REUBEN A. McCAULEY.

Witnesses:

WM. T. HOWARD,
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