

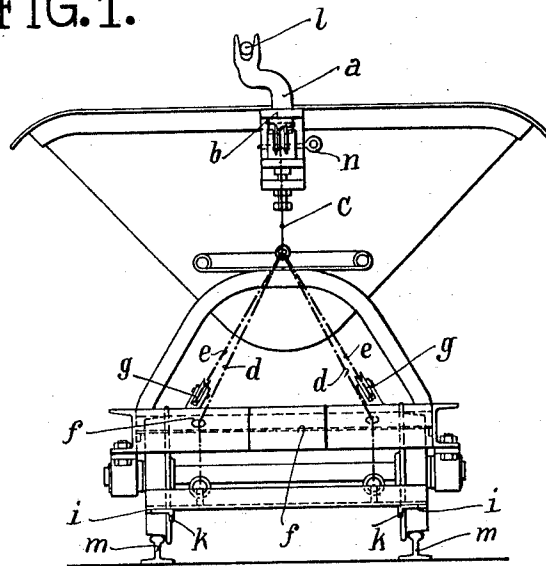
P. BESTA.
CABLE HAULED CAR.
APPLICATION FILED MAY 13, 1912.

1,053,775.

Patented Feb. 18, 1913.

2 SHEETS—SHEET 1.

FIG. 1.



Witnesses:
Henry Nuffer
Chas. Nuffer

Inventor:
Paul Besta

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2 SHEETS—SHEET 2.

FIG. 2.

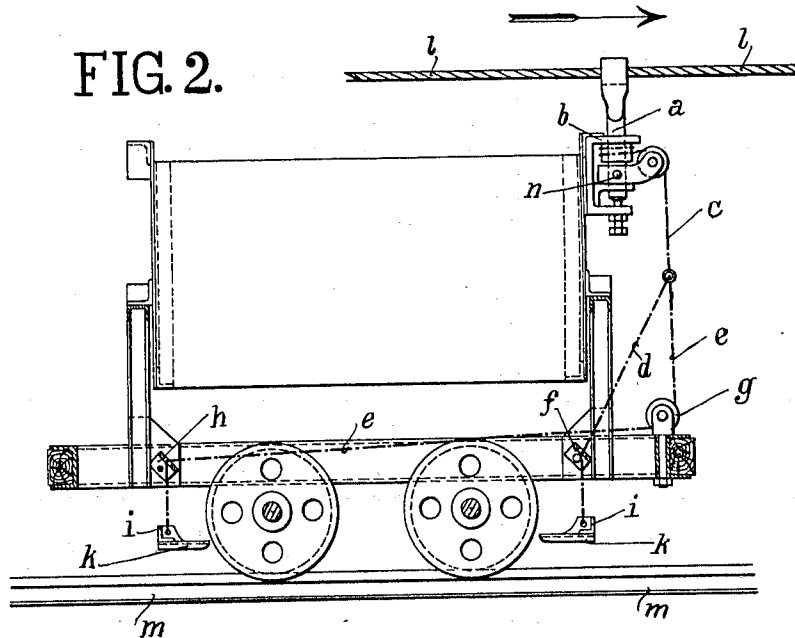


Fig. 4.

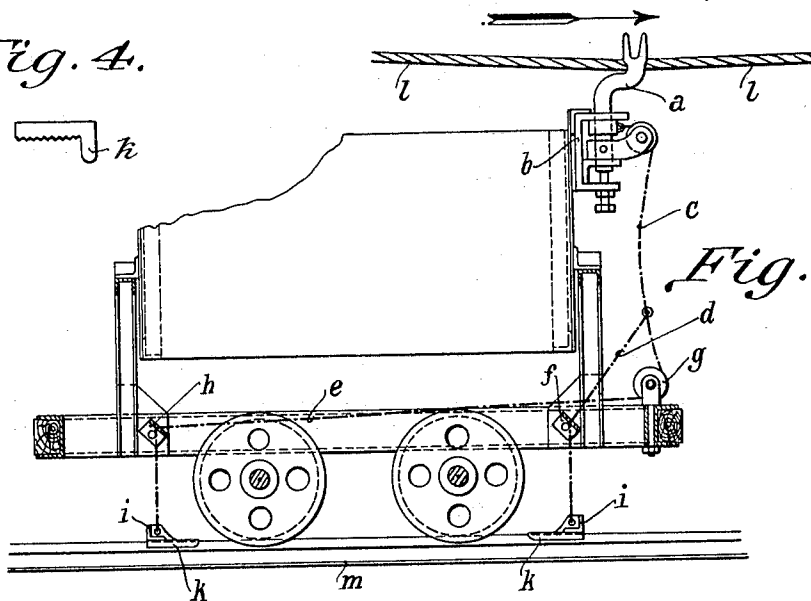
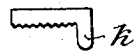


Fig. 3.

Witnesses:
Helen Nuffer
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Inventor:
Paul Besta

UNITED STATES PATENT OFFICE.

PAUL BESTA, OF RATINGEN, GERMANY.

CABLE-HAULED CAR.

1,053,775.

Specification of Letters Patent.

Patented Feb. 18, 1913.

Application filed May 13, 1912. Serial No. 696,979.

To all whom it may concern:

Be it known that I, PAUL BESTA, a subject of the King of Prussia, residing at Ratingen, in the Kingdom of Prussia, Germany, have
5 invented certain new and useful Improvements in Cable-Hauled Cars, of which the following is a specification.

This invention relates to a braking device for cars hauled by cables or by chains. The
10 braking device operates automatically as soon as the car is released from the cable or chain.

According to this invention the braking device consists of brake-blocks which are au-
15 tomatically placed upon the rails in front of the wheels by the releasing device as soon as the car is released from the cable or chain. The wheels run up the brake blocks whereby the car is immediately stopped. The lower
20 surfaces of the brake blocks which are pressed by the wheels upon the rails are roughened whereby a better braking action is insured.

In the accompanying drawings the inven-
25 tion is shown by way of example:—

Figure 1 shows in front elevation a tipping car having the improved braking device; the brake-blocks are shown in lifted position. Fig. 2 is a side elevation of Fig. 1.
30 Fig. 3 is a side elevation, the brake blocks being shown in the braking position. Fig. 4 is a detail view showing the roughened surface of the brake-blocks.

The continuous cable or chain *l* is placed
35 in a gripper fork *a* carried by the car. This gripper fork *a* is loosely mounted in a bearing *b* fixed upon the front wall of the car. A rope or chain *c* is fixed to the shaft of the gripper fork *a* so that it winds around said
40 shaft when the gripper fork is being turned. This chain has two branches *d* and *e* of which the one *d* is guided in guide pieces *f*, the other one being guided over grooved disks *g* and through guide pieces *h*. The
45 brake blocks *i* are fixed at the ends of the branches *d* and *e* of the rope or chain. The brake blocks are mounted upon angular cross rails and present extensions *k* designed to grip over the heads of the rails (Figs. 1
50 and 3) whereby they are securely brought into the proper position between the rails and the wheels when they are released (Fig. 3).

Before the cable *l* is placed into the grip-
55 per fork *a* this fork is turned so that the chain *e* is wound around its shaft whereby

the brake blocks *i* are lifted off the rails *m*. If the car for any reason whatsoever is dis-
connected from the cable *l* the fork *a*, which is thus released, turns back under the ten-
60 sion of the ropes or chains (*c—d—e*) so that the chain *c* unwinds from the shaft of the fork and the brake-blocks which are thus released drop upon the rails immediately in
65 front of the wheels. The car runs upon the blocks *k* whereby it is stopped. The lower surfaces of the brake-blocks are roughened whereby a better adherence upon the rails is insured. The weight of the chains (*c—d—e*)
70 which connect the brake-blocks with the gripper fork could be increased by the addition of weights.

If the car has to move only along one in-
cline, the brake-blocks need be arranged only
at one side of the wheels but the releasing
75 device remains the same as hereinbefore described.

If the car is moved by hand the brake
fork is locked after the chain *c* has been
wound around the shaft of the fork and the
80 brake-blocks *k* have been lifted off the rails; for this purpose a cotter *n* is inserted in alining openings in the gripper fork and its bearing (Fig. 1).

I claim:—

1. An automatic braking device for cable
85 hauled cars comprising in combination brake-blocks, suspended in front of the wheels, chains to which said brake-blocks are attached, a bearing fixed on the front wall
90 of the car, a gripper fork loosely mounted in said bearing, and the chain of the brake blocks fixed to said fork so that it can be wound around the fork shaft to lift the
95 brake blocks off the rails, substantially as described and shown and for the purpose set forth.

2. An automatic braking device for cable
hauled cars comprising in combination
100 brake-blocks, suspended in front of the wheels, chains to which said brake-blocks are attached, a bearing fixed on the front wall of the car, a gripper fork loosely mounted in said bearing, and the chain of the
105 brake-blocks fixed to said fork so that it can be wound around the fork shaft to lift the brake-blocks off the rails, and means for locking the gripper fork after the chain has been wound up, substantially as described
and shown and for the purpose set forth. 110

3. An automatic braking device for cable
hauled cars comprising in combination

brake-blocks having roughened lower surfaces, suspended in front of the wheels, chains to which said brake-blocks are attached, a bearing fixed on the front wall of
5 the car, a gripper fork loosely mounted in said bearing, and the chain of the brake-blocks fixed to said fork so that it can be wound around the fork shaft to lift the brake-blocks off the rails, substantially as

described and shown and for the purpose set forth. 10

In witness whereof I have hereunto set my hand in the presence of two witnesses.

PAUL BESTA. [L. S.]

Witnesses:

ALBERT NUFER,
HELEN NUFER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
