

No. 772,555.

PATENTED OCT. 18, 1904.

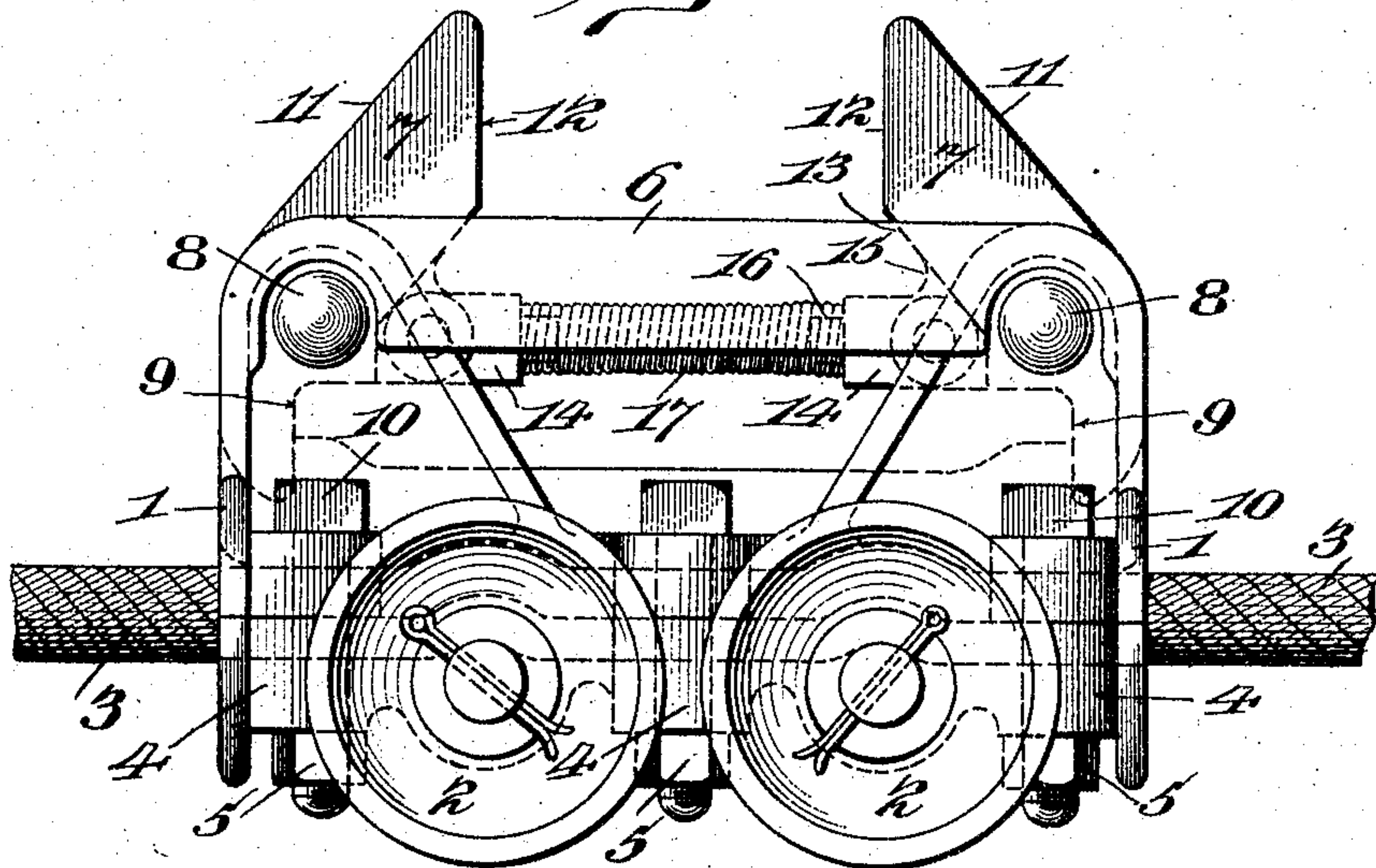
C. W. DAMRON.

AUTOMATIC CAR DOG FOR CABLE MINE HAULS.

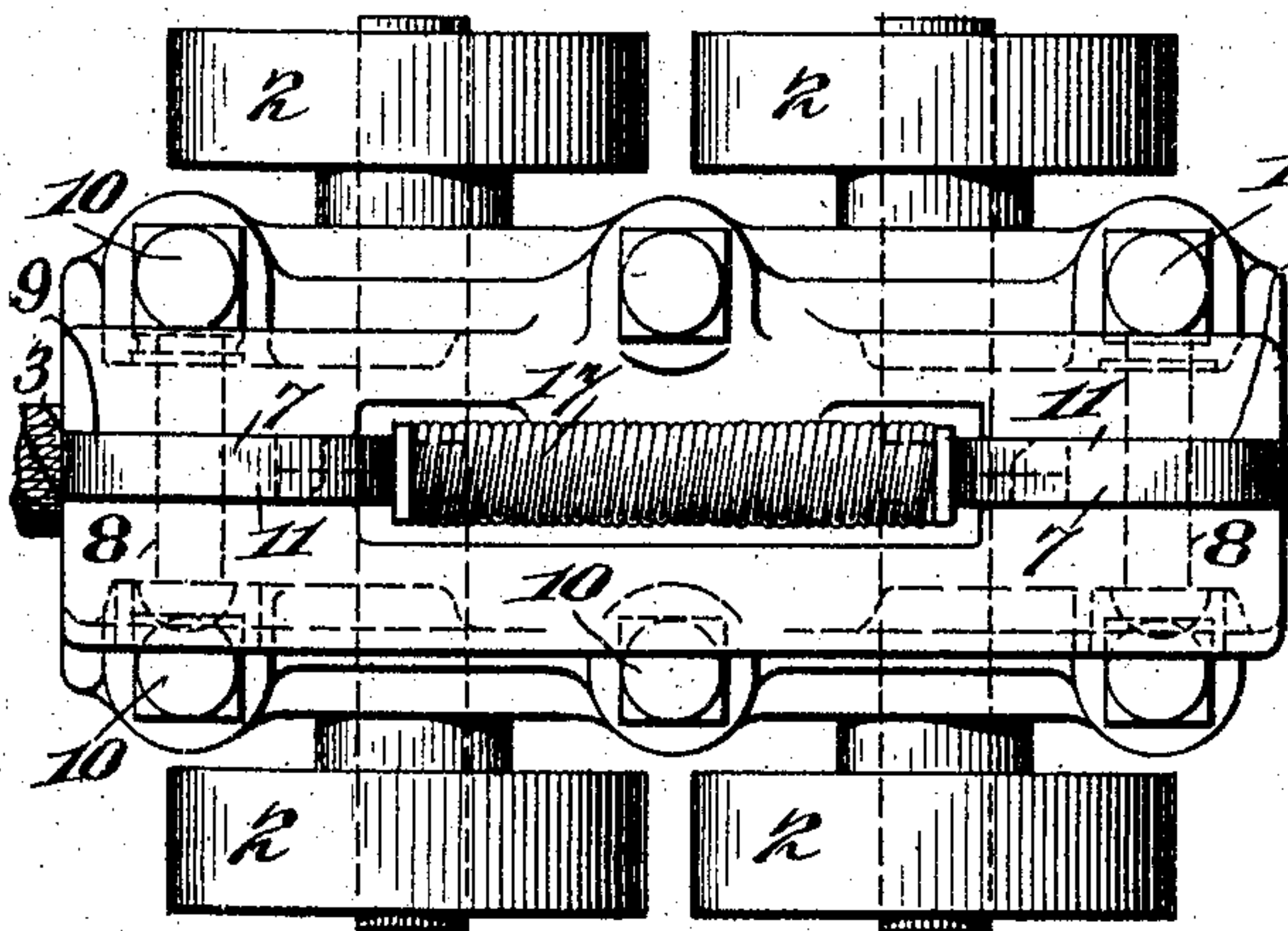
APPLICATION FILED JAN. 25, 1904.

NO MODEL.

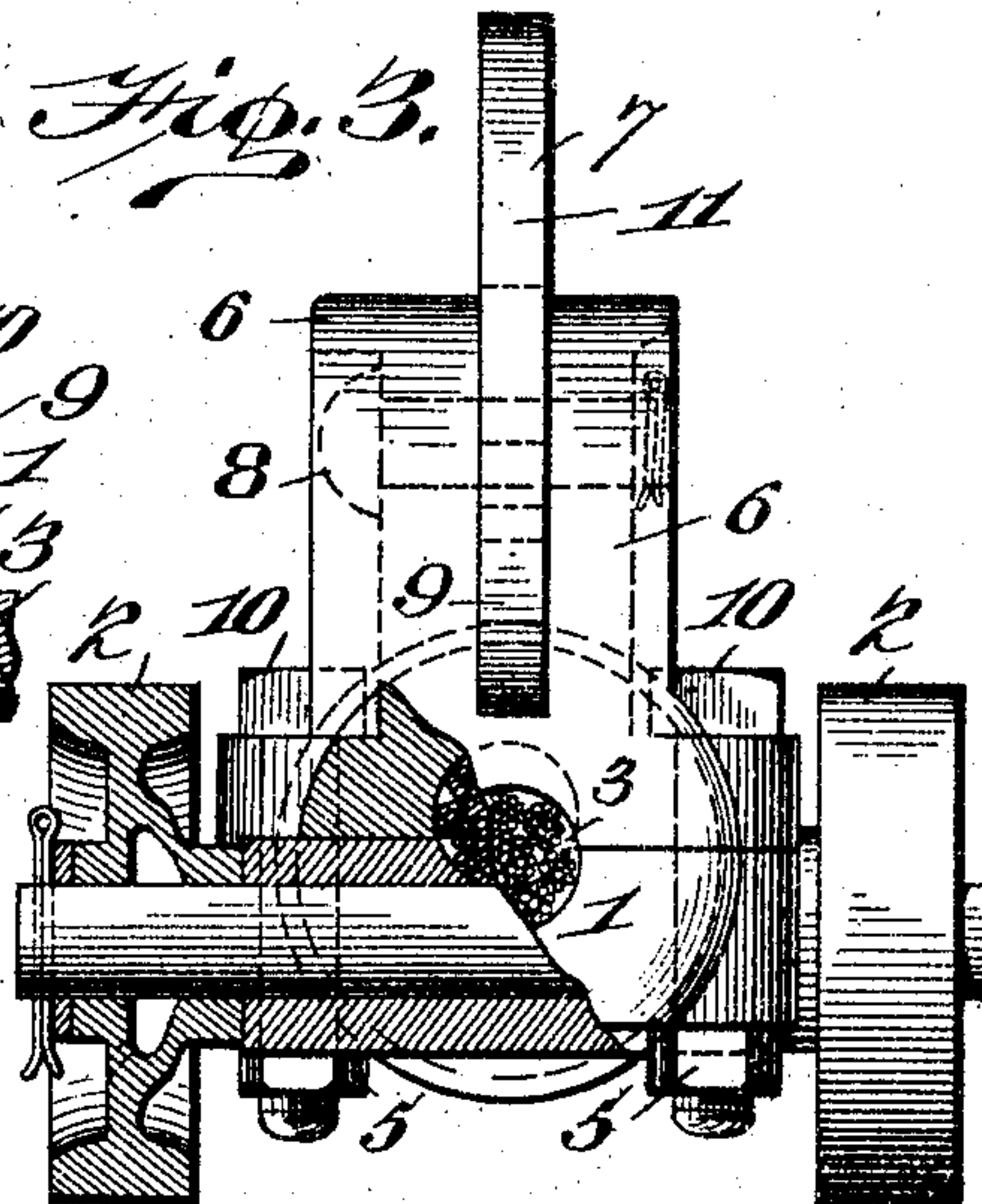
*Fig. 1.*



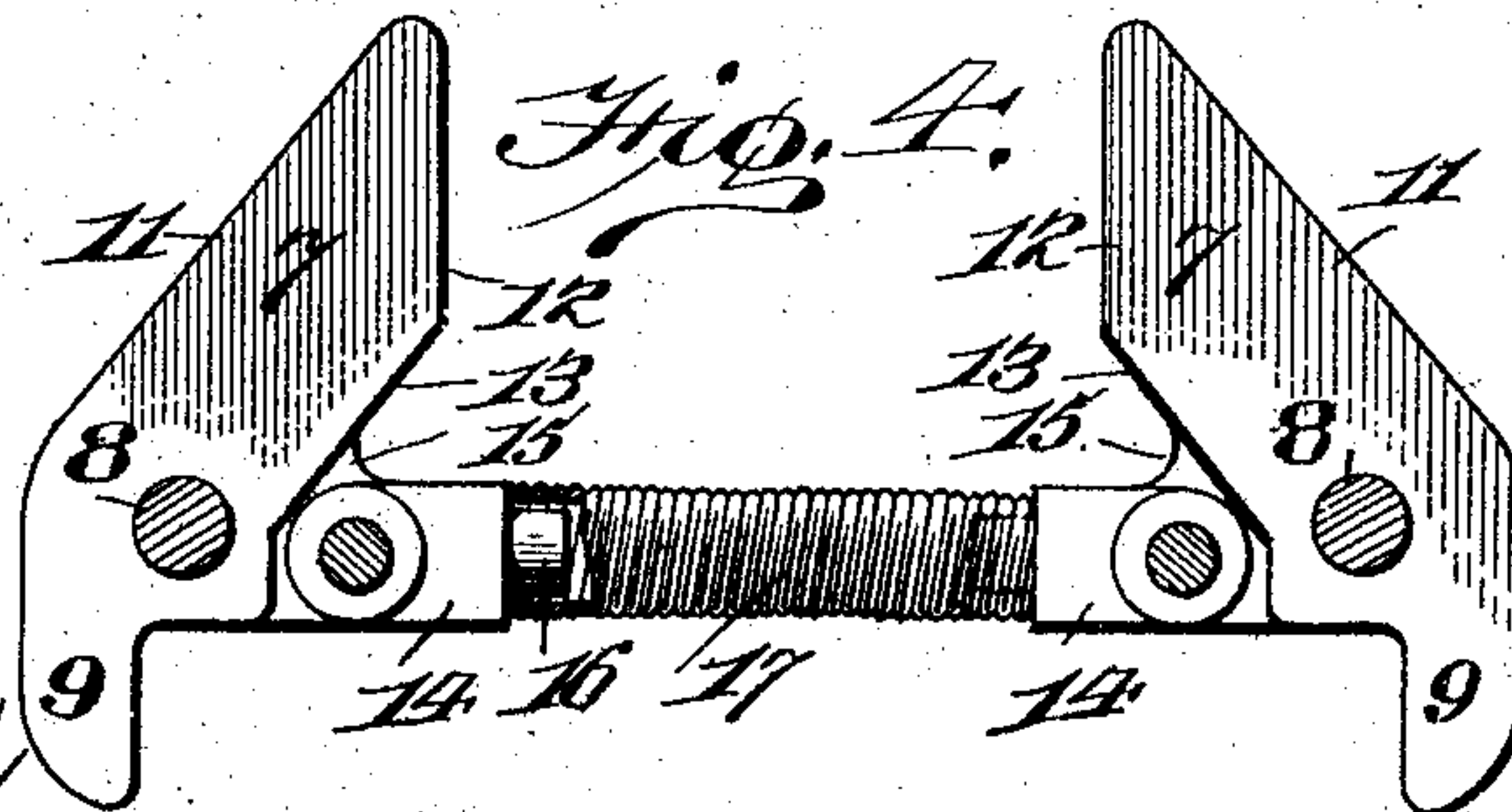
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



Witnesses

*W. S. Dieterich*  
*Harold Hurd*

Inventor

*C. W. Damron*

*By Knight & Co.*  
Attorneys



# UNITED STATES PATENT OFFICE.

CARSON W. DAMRON, OF FAIRMONT, WEST VIRGINIA, ASSIGNOR TO THE  
WAGNER-PALMROS MANUFACTURING COMPANY, OF FAIRMONT, WEST  
VIRGINIA, A CORPORATION OF WEST VIRGINIA.

## AUTOMATIC CAR-DOG FOR CABLE MINE-HAULS.

SPECIFICATION forming part of Letters Patent No. 772,555, dated October 18, 1904.

Application filed January 25, 1904. Serial No. 190,620. (No model.)

*To all whom it may concern:*

Be it known that I, CARSON W. DAMRON, a citizen of the United States, residing at Fairmont, in the county of Marion, State of West Virginia, have invented certain new and useful Improvements in Automatic Car-Dogs for Cable Mine-Hauls, of which the following is a specification.

This invention relates to the type of car-dogs disclosed in the United States Patent No. 722,951, dated March 24, 1903.

In the drawings, Figure 1 is a side elevation of my improved car-dog. Fig. 2 is a top plan view of the same. Fig. 3 is a rear elevation of the same, parts being in section. Fig. 4 is a detailed view.

1 represents the dog, mounted upon suitable wheels 2, said dog being provided with a cableway in which the cable 3 is securely clamped by means of the clamp 4 and bolt and nut 5, as fully explained in the patent above referred to.

6 represents extensions at each end of the dog, between which are pivoted the gripping-arms 7 by means of a pivotal bolt 8, said arms being provided with depending ends 9, which are adapted to be seated against shoulders 10, said shoulders being formed on the dog by means of the extensions 6. The outer face of the arm 7 is inclined, as at 11, while the inner face is perpendicular, as at 12, the arm receding from the perpendicular face 12, so as to form a beveled face 13.

14 is an arm pivoted between the members 6 and provided with an upward extension 15, the outer face of which is beveled on the same angle as the bevel 13 of the arms 7, the beveled face of the extension 15 being adapted to engage the beveled face 13 of the arms 7, thereby providing a stop against which said arm 7 rests. The arm 14 is provided with a lug 16, around which one end of the coil compression-spring 17 is firmly secured. There are two of the arms 14, one at each end of the dog, and the mechanism at both ends of the dog is the same as just described.

It is of course understood that according to the plan shown in the patent referred to the

dogs are attached to the cable in such a manner that they engage the axle of the mine-car and propel it to the dump and return the car to the mine. Heretofore these dogs have been constructed in such a manner that they cannot couple with the car coming from either direction, inasmuch as one of the arms of the dog has heretofore been always more or less rigid and not capable of giving so as to permit the axle to ride over it into position between the two arms of the dog.

It is the purpose of my invention, as will be understood from the drawings and as above described, to construct a dog of this class adapted to grip a car coming from either direction.

As soon as a car strikes the beveled face 11 of one of the arms 7 said arm is swung upon its pivot 8, thereby permitting the axle of the car to ride over it and engage the other arm 7 of the dog. As soon as the axle of the car has passed over the arm 7 the arm struck is thrown into its normal vertical position, whereby the axle is secured between the perpendicular face 12 of the two arms. When the arm is swung upon its pivot, the beveled face 13 rides on the beveled face of the extension 15 of the arm 14, thereby swinging the arm 14 upon its pivot, thus lowering the outer end of the arm 14, carrying with it one end of the coil-spring 17, and thereby expanding said spring 17 under tension. It will readily be seen that as soon as the arm 7 is relieved of contact with the axle of the car the spring 17 pulls the outer end of the arm 14 upward, thus impinging the beveled face of the extension 15 against the beveled face 13 of the arm 7, thereby forcing said arm 7 to its vertical position. The arm 7 is held against upward movement by reason of an extension 9 impinging against a fixed part of the dog. Thus the axle of the car is securely held between the arms until the cable is dipped in the usual manner in cable mine-hauls. Should a car approach a dog from an opposite direction, the other arm 7 will be operated as has just been described in connection with the first arm mentioned. The spring 17 is of



sufficient strength to maintain the arms 7 normally in a vertical position, as shown in Fig. 1, and by reason of its coils the position of one of the arms 7 is not affected by the operation of the other arm.

For brevity I shall refer in the claims to the arms 14 and their extension 15 as L-shaped levers.

What I claim, and desire to secure by Letters Patent, is—

1. In a cable-haul, a dog for connecting a car thereto, comprising a pair of pivoted arms independently movable by impact of the car against them and means resiliently holding the arms in engaging position.

2. In a cable-haul, a dog for connecting a car thereto, comprising two pivoted arms independently movable toward each other, whereby the dog may grip a car traveling in either direction and means resiliently holding the arms in the path of the car.

3. In a cable-haul, a dog for connecting a car thereto, comprising two arms movable independently of each other and means resiliently connecting said arms.

4. In a cable-haul, a dog for connecting a car thereto, comprising two independently-movable arms and means connecting and maintaining said arms in a normal perpendicular position.

5. In a cable-haul, a dog for connecting a car thereto, comprising two movable arms and means connecting said arms, but permitting them to move independently of each other.

6. In a cable-haul, a dog for connecting a car thereto, comprising two independently-movable arms, means maintaining said arms in a normal perpendicular position, and a stop limiting the movement of said arms.

7. In a cable-haul, a dog for connecting a car thereto, comprising two pivoted arms independently movable, and a spring connecting said arms to maintain them in a normal vertical position.

8. In a cable-haul, a dog for connecting a car thereto, comprising two pivoted arms independently movable toward each other, a spring to hold said arms normally in a verti-

cal position, and a stop against which said arms are held by said spring in their normal vertical position.

9. In a cable-haul, a dog for connecting a car thereto, comprising a suitable base, two arms mounted on said base and movable independently of each other, a pair of L-shaped levers pivoted to the base and provided with beveled faces constructed for engagement with said arms, and a spring connecting said L-shaped levers to maintain the said arms in a normal vertical position.

10. In a cable-haul, a dog for connecting a car thereto, comprising a base, two independently-pivoted disconnecting-arms, a stop on the base limiting the movement of said arms in one direction, a pair of L-shaped levers having a beveled face adapted to engage said arms, and a spring connecting said L-shaped levers to return the parts to a normal position after being operated.

11. In a cable-haul a dog for connecting a car thereto, comprising two independently-movable arms having beveled faces, stops limiting the movement of said arms, L-shaped levers having beveled faces adapted to engage the beveled face of said arms, and a spring connecting said L-shaped levers to maintain the parts in a normal position.

12. In a cable-haul, the combination with a base, a suitable cable-clamp on said base, of a pair of arms mounted on said base and independently movable toward each other and provided with an inner beveled face, a stop on the base for limiting the outer movement of said arms, L-shaped levers pivoted to the base between said arms and provided with beveled faces constructed for engagement with an inner beveled face of said arms and a coil-spring connecting the L-shaped levers to return the parts to a normal position after being operated.

The foregoing specification signed this 21st day of December, 1903.

CARSON W. DAMRON.

In presence of—

H. F. WOODBURN,

LAURA A. WOODBURN.