(No Model.)

T. J. WATERS.

ENDLESS CABLE HAULAGE GRIP.

No. 459,085. Patented Sept. 8, 1891.

Fig. 1.

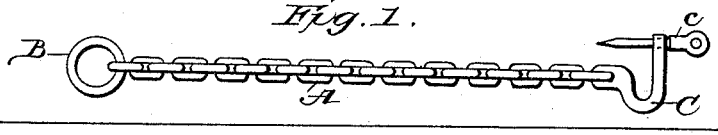


Fig. 2.

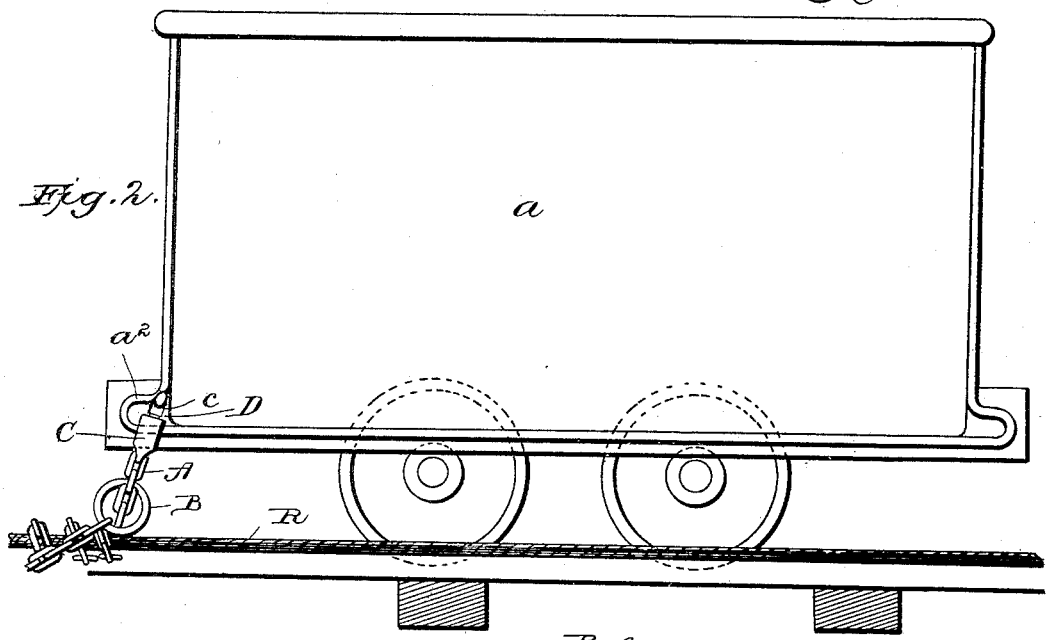


Fig. 3.

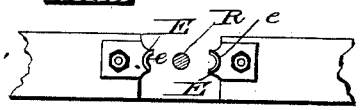


Fig. 4.

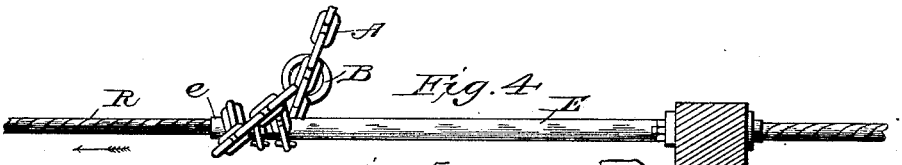
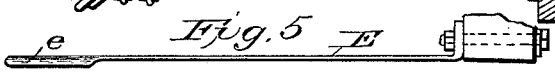


Fig. 5.



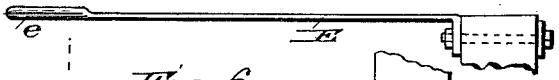
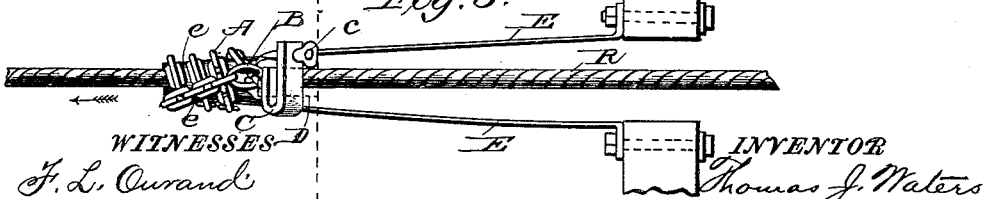


Fig. 6.



WITNESSES

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UNITED STATES PATENT OFFICE.

THOMAS J. WATERS, OF WESTPORT, NEW ZEALAND.

ENDLESS-CABLE HAULAGE-GRIP.

SPECIFICATION forming part of Letters Patent No. 459,085, dated September 8, 1891.

Application filed March 25, 1891. Serial No. 386,340. (No model.) Patented in England November 8, 1890, No. 15,295.

To all whom it may concern:

Be it known that I, THOMAS J. WATERS, a subject of the Queen of Great Britain, residing at Westport, in New Zealand, have invented a certain new and useful Endless-Rope Haulage-Gear, (for which an English patent has been granted me November 8, 1890, No. 15,295,) of which the following is a full, clear, and exact description.

This invention, which relates to endless-rope haulage-gear for use chiefly in mines, has for its object the provision of improved means for attaching corves or hutches to the hauling-rope while stationary or in motion.

I will describe the principle of my invention first and the best manner in which I contemplate applying that principle, and will then particularly point out and distinctly claim the part or improvement which I claim as my invention.

In the accompanying drawings, illustrating my invention, in the several figures of which like parts are similarly designated, Figure 1 is an elevation of the sling or coupler detached. Fig. 2 is a partly sectional side elevation showing a corve or hutch made fast to an endless cable. Fig. 3 is an end elevation of the guard. Fig. 4 is a side elevation; Fig. 5, a plan, and Fig. 6 a plan showing the chain applied.

For hanging on or attaching the corve or hutch *a* to the hauling-rope R a short length of chain A is employed, and is furnished, as represented in the accompanying drawings at Fig. 1, with a hook or ring B at one end and at the other with a hook C and pin *c* or other like device for coupling or securing the chain to the eye a^2 of the corve or hutch. The chain is coiled or wrapped around the hauling-rope R, as represented at Fig. 2, the hooked end C passed through the hook or ring B, and the hook C made fast to the hutch at D. The hutch is readily disengaged from the rope by withdrawing the pin *c*.

To facilitate the attachment of the chain-sling to the rope when the latter is in motion, the device represented in end elevation at Fig. 3, in side elevation at Fig. 4, and in plan at Figs. 5 and 6 is employed. This device consists of a pair of long spring-blades E E, attached to the cross-sleepers or other fixture between the rails and situated one at each side of the hauling-rope. The ends of these blades are so shaped at *e e* that when brought together they loosely surround the rope and form a guard or shield, through which the traveling rope passes freely. Round the guard portion of the springs the chain-sling A is wrapped or coiled, as shown at Figs. 4 and 6, without interfering with the moving rope, and the hook C is attached to the hutch at leisure. Then the hutch is pushed forward, and by its movement draws the chain-sling off the guard *e* onto the moving rope, which it engages firmly, the hutch being thereby hauled until the pin *c* is withdrawn to undo the sling.

What I claim is—

1. A flexible sling adapted to be engaged frictionally with a cable or equivalent motor device and to be connected to a hutch and a guard composed of spring-arms, about which the said flexible device is passed, in the first instance, to set it for engagement with the cable, substantially as described.

2. A sling or coupling composed of a flexible medium having a loop at one end and a hook at the other end, through which hook a pin is passed, substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand this 26th day of January, A. D. 1891.

THOMAS J. WATERS.

Witnesses:

WM. SCOTT,
Clerk of The Westport Coal Company, Dunedin.

JOHN L. GILLIES, Jr.,
Clerk, Dunedin.