(No Model.) 2 Sheets—Sheet 1.

H. M. TAAFFE, Dec'd.

J. MELEY, Administratrix.

AUTOMATIC CAR BRAKE.

No. 326,667. Patented Sept. 22, 1885.

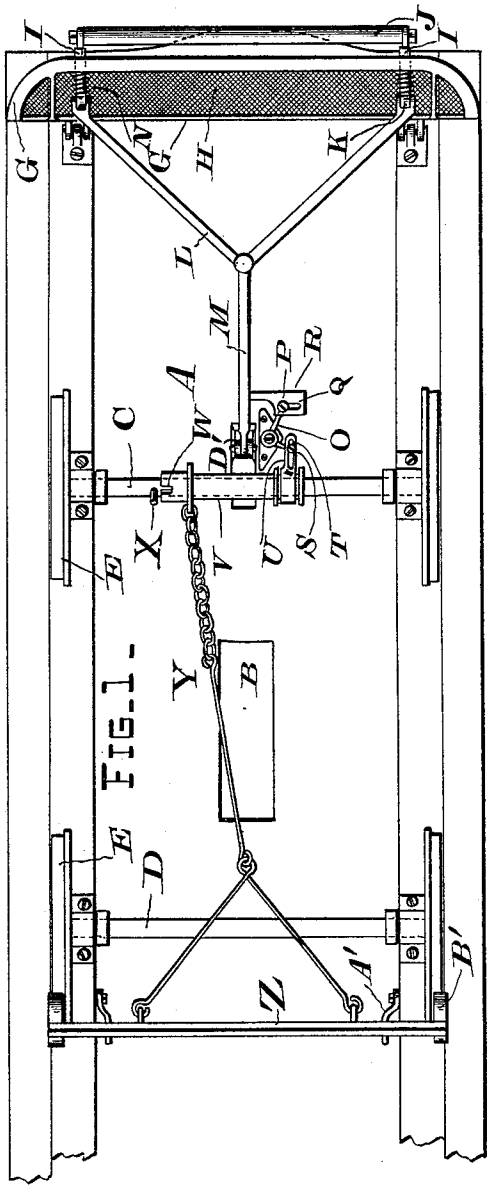

FIG. 1.

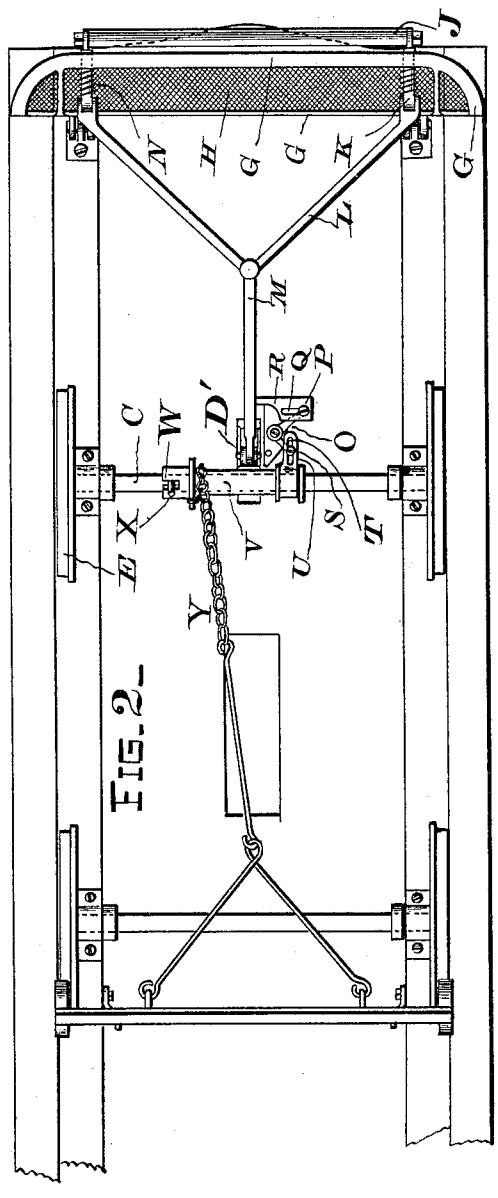

FIG. 2.

WITNESSES.

Wilmer Bradford

Joseph Ford.

INVENTOR.

Henry M. Taaffe.

By Atty

C. Wm. Smith.

N. PETERS, Photo-Lithographer, Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

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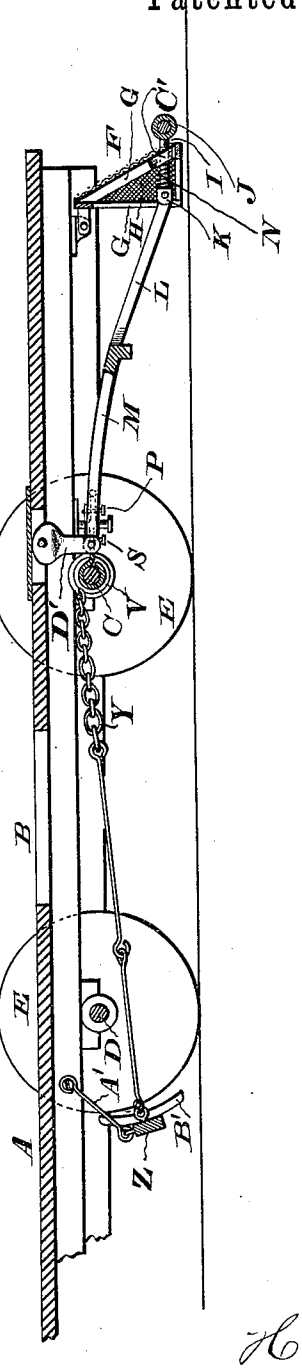

FIG. 3.

WITNESSES—

Wilmer Bradford

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UNITED STATES PATENT OFFICE.

JANE MELEY, OF SAN FRANCISCO, CALIFORNIA, ADMINISTRATRIX OF HENRY M. TAAFFE, DECEASED.

AUTOMATIC CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 326,667, dated September 22, 1885.

Application filed May 4, 1885. (No model.)

To all whom it may concern:

Be it known that HENRY M. TAAFFE, late a citizen of the United States, and residing at San Francisco, in the county of San Francisco and State of California, now deceased, did invent a new and useful Improvement in Automatic Car-Brakes, of which the following is a specification.

This invention relates to improvements in automatically-acting car-brakes; and it is more especially designed for use upon that class of railroad-cars known as "dummies," and used or run upon endless-cable railroads.

The object of the invention is to provide a means whereby the brakes of a car may be instantly and automatically applied upon the cow-catcher or pilot coming in contact with any obstruction upon the track, as will be fully set forth hereinafter. These objects are attained by the means illustrated in the accompanying drawings, in which—

Figure 1 is a bottom view of the platform and pilot of a dummy-car, showing the position of my improved automatic car-brake mechanism when the brakes are "off" or unset. Fig. 2 is a similar view showing the position of the parts when the brakes are set or "on." Fig. 3 is a longitudinal sectional view showing the brake mechanism.

Similar letters of reference are used to indicate like parts throughout the several views.

A represents the platform of a railroad car or dummy, and B the slot made therein for the reception of the grip mechanism.

C represents the front axle, and D the rear axle carrying the wheels E.

The cow-catcher or pilot (designated by the letter F) is formed of a supporting frame-work, G, suitably secured to the car, either rigidly or otherwise, and is covered with a wire-gauze or woven netting, H, upon the upper side of the base-strip of the pilot-framing G, and near each end thereof are placed boxes or guides C'. (Shown in side elevation in Fig. 3.) These boxes carry and guide the spring-rods I I, which extend through the boxes on a line parallel to the length of the car, and their forward ends are connected by a round rubber rod or bar, J, strengthened by an interior wire or metal rod held in place by nuts and washers, as indicated in Figs. 1 and 2. The rear ends or inner portions of the rods I I are pivoted by a head, K, to the forked arms L of the rod M, while a coiled spring, N, is wound around that part of the said rods I between the boxes and the heads K, and is connected to the said boxes and heads, and by its retractive power draws or pushes the rods forward, carrying the rubber transverse bar a few inches out in advance of the face of the pilot. The forked rod or bar M extends backward to near the front axle, and is pivoted to a downwardly-extending bar or hanger, D', which in turn is pivoted to the under side of or in a slot in the platform of the car, and thus a pivoted support is had for the inner end of the said forked rod. To the under side of the car-platform, at any convenient distance from the front axle and the rod M, is pivoted the bell-crank lever O, a stud, P, upon the forward arm of which engages a slot, Q, cut in a plate or arm, R, projecting horizontally and at right angles out from the rod M. A stud, S, upon the rear arm of the bell-crank engages with a slot, T, in an arm, U, projecting horizontally and forward from a sliding collar or sleeve, V, mounted upon the fore axle and having its upper end slotted at W to engage with and receive the stud X, projecting from the axle. A chain-and-link connection, Y, is connected with the sleeve V and extends backward and is made fast to the cross-bar Z, suspended by links A' from the platform of the car and carrying the brake-shoes B'.

When in operation, the brake-shoes hang free of the wheels, and the car is forced or drawn easily forward over the track-rails; but should an obstruction be met with, the advance bar J, in front of the pilot, will be the first thing to encounter the said obstruction, which it does with something of a yielding action, owing to the elasticity of the rubber, while at the same instant the rod is forced backward toward the pilot, and through the medium of the forked connecting-rod M operates the bell-crank lever O and sleeve V, pushing it along the axle until the slot therein engages with the stud X, when, as the revolution of the wheels continue, there is a consequent winding of the chain Y upon the drum

or sleeve V and a tightening up or drawing of the brake or brake-shoes toward the wheels on the hind axle, against which they press and bind with a force proportionate to the momentum and rate of speed which the car had acquired previous to meeting the obstruction, and also the rate at which the car is retarded by the obstruction.

What I claim as the invention of HENRY M. TAAFFE, and desire to secure by Letters Patent in the name of JANE MELEY, as administratrix of the estate of the late HENRY M. TAAFFE, is—

In an automatic car-brake, the combination, with a bar or rail, J, placed transversly across the front of the car, and supported by arms L, of the forked rod M, bell-crank lever O, sliding sleeve V, having a slot engaging with a stud, X, upon the car-axle, and the chain Y, connecting with the brake-bar Z and shoes B′, all combined, constructed, and arranged substantially as shown for the purpose set forth.

JANE MELEY,
Administratrix of the estate of the late Henry M. Taaffe.

Witnesses:
C. W. M. SMITH,
CHAS. E. KELLY.