

No. 665,875.

Patented Jan. 15, 1901.

G. A. CARTER.
EMERGENCY STREET CAR BRAKE.

(Application filed Mar. 21, 1900.)

(No Model.)

Fig. 1

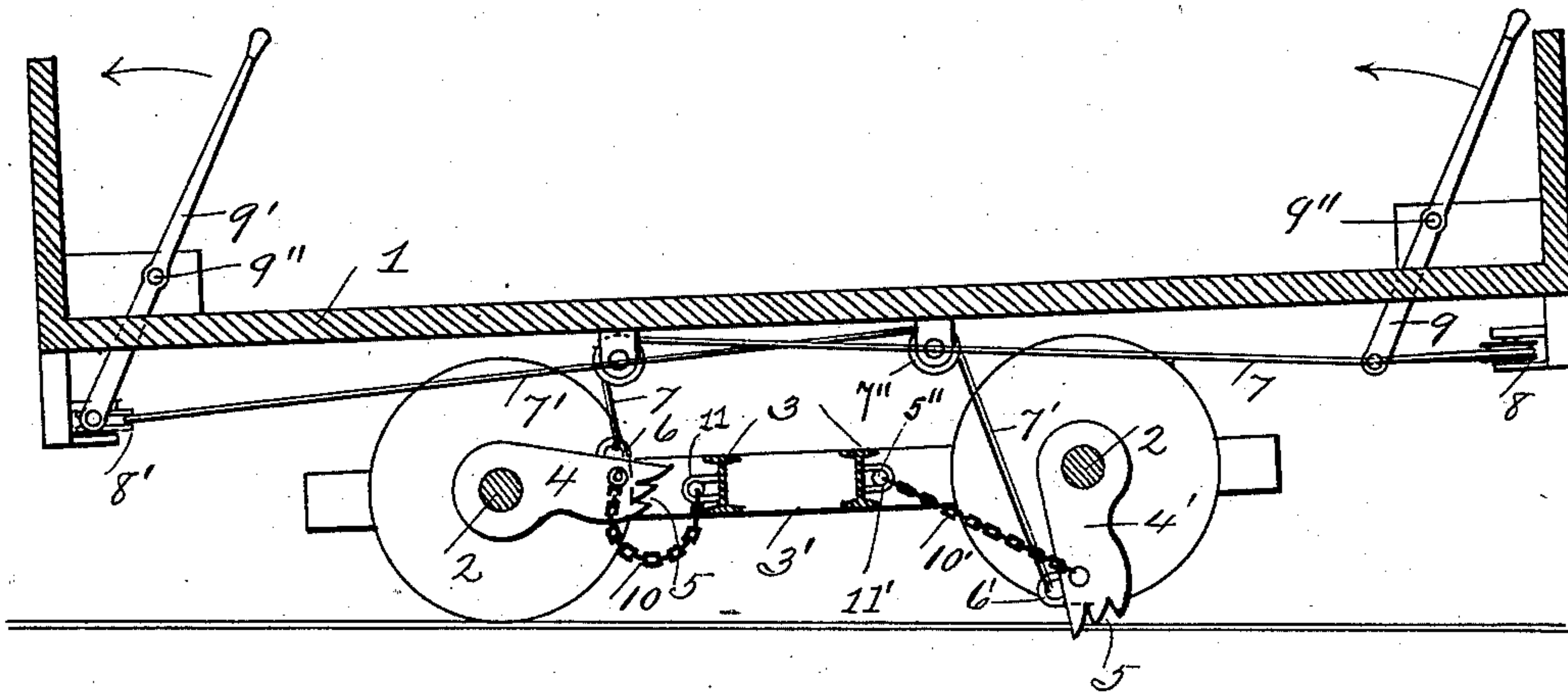
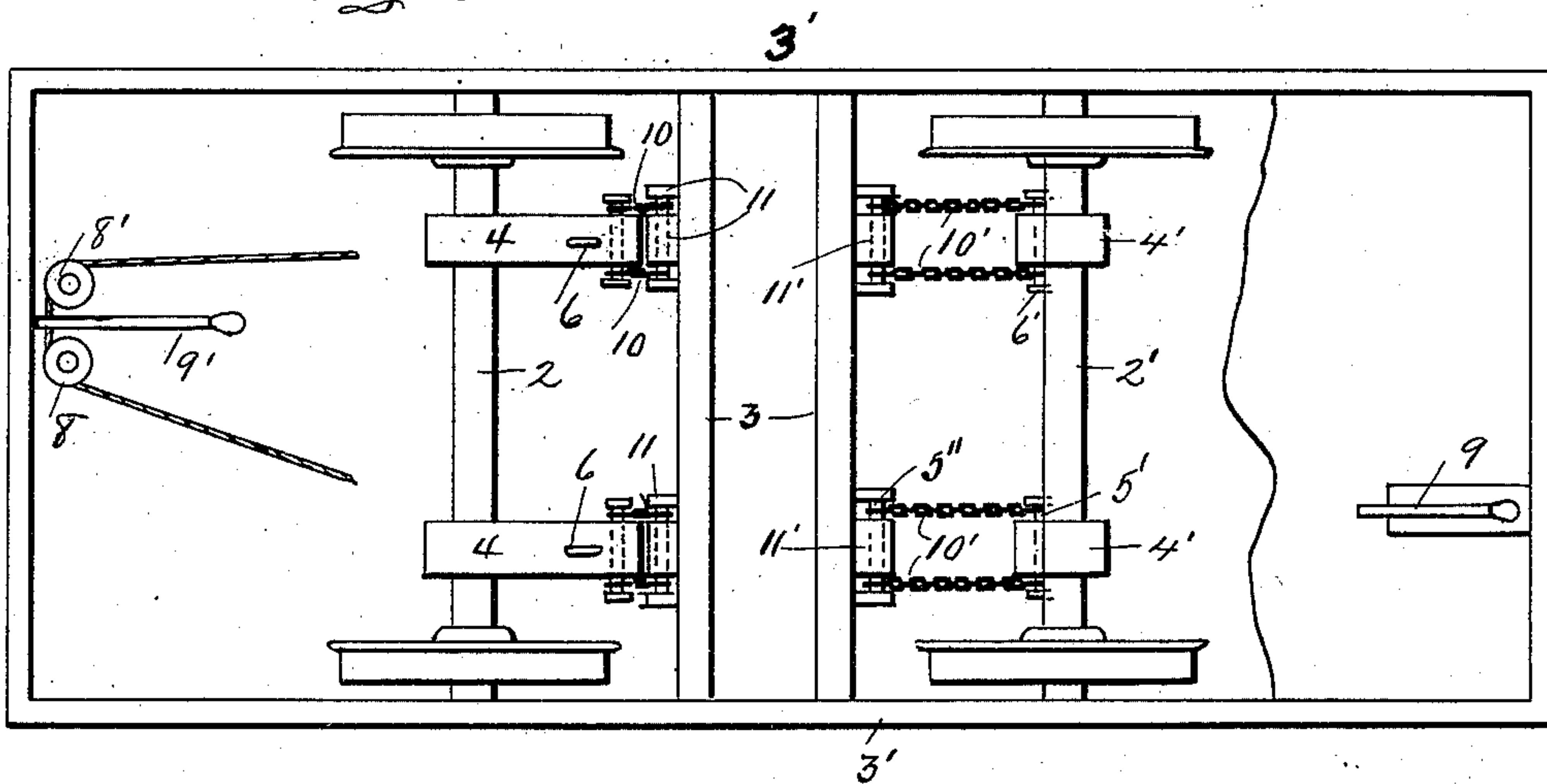


Fig. 2



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GEORGE A. CARTER, OF PITTSBURG, PENNSYLVANIA.

EMERGENCY STREET-CAR BRAKE.

SPECIFICATION forming part of Letters Patent No. 665,875, dated January 15, 1901.

Application filed March 21, 1900. Serial No. 9,591. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. CARTER, a citizen of the United States of America, residing at No. 80 Sycamore street, Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Emergency Street-Car Brakes; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved brake for street-railway cars; and it consists in an apparatus capable of stopping a car in case of emergency, together with certain details of construction and combination of parts, as will be fully described hereinafter.

In the accompanying drawings, Figure 1 is a side central sectional elevation of a street-railway car provided with an improved emergency-brake which is constructed and arranged in accordance with my invention. Fig. 2 is a plan view of the same.

In the accompanying drawings, 1 indicates the floor of the car; 3, the side rails of the truck-frame, in which the axles 2 2' of the truck are journaled. Loosely mounted on the axle 2 is a pair of brake dogs or shoes 4, and similarly mounted on the axle 2' is a pair of like dogs 4', both pairs of brake-dogs being provided with toothed or serrated lower ends 5 for engagement with the paving when the brake-dogs are dropped. These brake dogs or shoes carry each a bolt 5, having heads, and attached to each bolt, between the heads and the brake dogs or shoes, are chains 10 10', the other ends of which are attached to bolts 5'', carried in keepers 11 11', which are attached to I-beams 3, connected to the side rails 3' of the truck-frame. The brake-dogs 4 4' carry staples 6 6', to which are attached the ends of the ropes or cables 7 7', the two strands of each rope or cable passing over pulleys 7'', suspended from the floor of the car, and over pulleys 8 8', the pulleys 8 being at one end and the pulleys 8' at the other end. These ropes or cables 7 7' are operated and controlled by means of hand-levers 9 9', the lower ends of which are connected to the respective ropes or cables between the two pulleys 8 and the two pulleys 8', the levers be-

ing pivoted, as at 9'', above the car-floor. It will be readily observed that by these two levers the brake-dogs may be elevated to the position shown at the left hand of Fig. 1 or dropped to the position shown at the right-hand side of the same figure.

In operation should the motorman desire to instantly stop the car the lever 9' is thrown backward to the position shown at Fig. 1, which will permit the dog 4' to drop and the teeth 5 to engage with the street-paving, and as the said dog 4' is of a length sufficient to elevate the rear wheels from the track the entire weight of the car is utilized to check the momentum. The dogs are elevated by moving the lever in an opposite direction.

Various slight modifications and changes may be made in the general details of construction without departing from the spirit of the invention. Therefore I do not confine myself to the exact construction shown and described.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an emergency-brake for street-cars, the combination with the truck, of a pair of brake dogs or shoes loosely mounted on each axle of the truck, bolts carried by each of said brake dogs or shoes, a pair of beams carried by the truck, keepers carried by said beams, a pair of chains connected to each keeper and to the bolts carried by the brake dogs or shoes, a pair of operating ropes or cables, one for each pair of brake dogs or shoes, the ends of one of said ropes or cables being connected to one pair of brake dogs or shoes and the ends of the other rope or cable being connected to the other pair of brake dogs or shoes, and an operating-lever for each of said ropes or cables, substantially as shown and described.

2. In an emergency-brake for street-cars, the combination with the truck of a pair of brake dogs or shoes loosely mounted on each axle of the truck, a pair of I-beams carried by the truck, a pair of chains connected to each brake dog or shoe and to the I-beams, a pair of operating ropes or cables, one for each pair of brake dogs or shoes, the ends of one rope or cable connected to one pair of brake dogs or shoes and the ends of the other

rope or cable connected to the other pair of
brake dogs or shoes, a series of pulleys sup-
ported from the car-body to receive said ropes
or cables, and a pivoted operating-lever for
5 each rope or cable whereby one pair of brake
dogs or shoes is operated and controlled in-
dependently of the other pair, substantially
as shown and described.

In testimony whereof I have hereunto af-
fixed my signature in the presence of two sub- 10
scribing witnesses.

GEORGE A. CARTER.

Witnesses:

M. E. HARRISON,
JOHN GROETZINGER.