

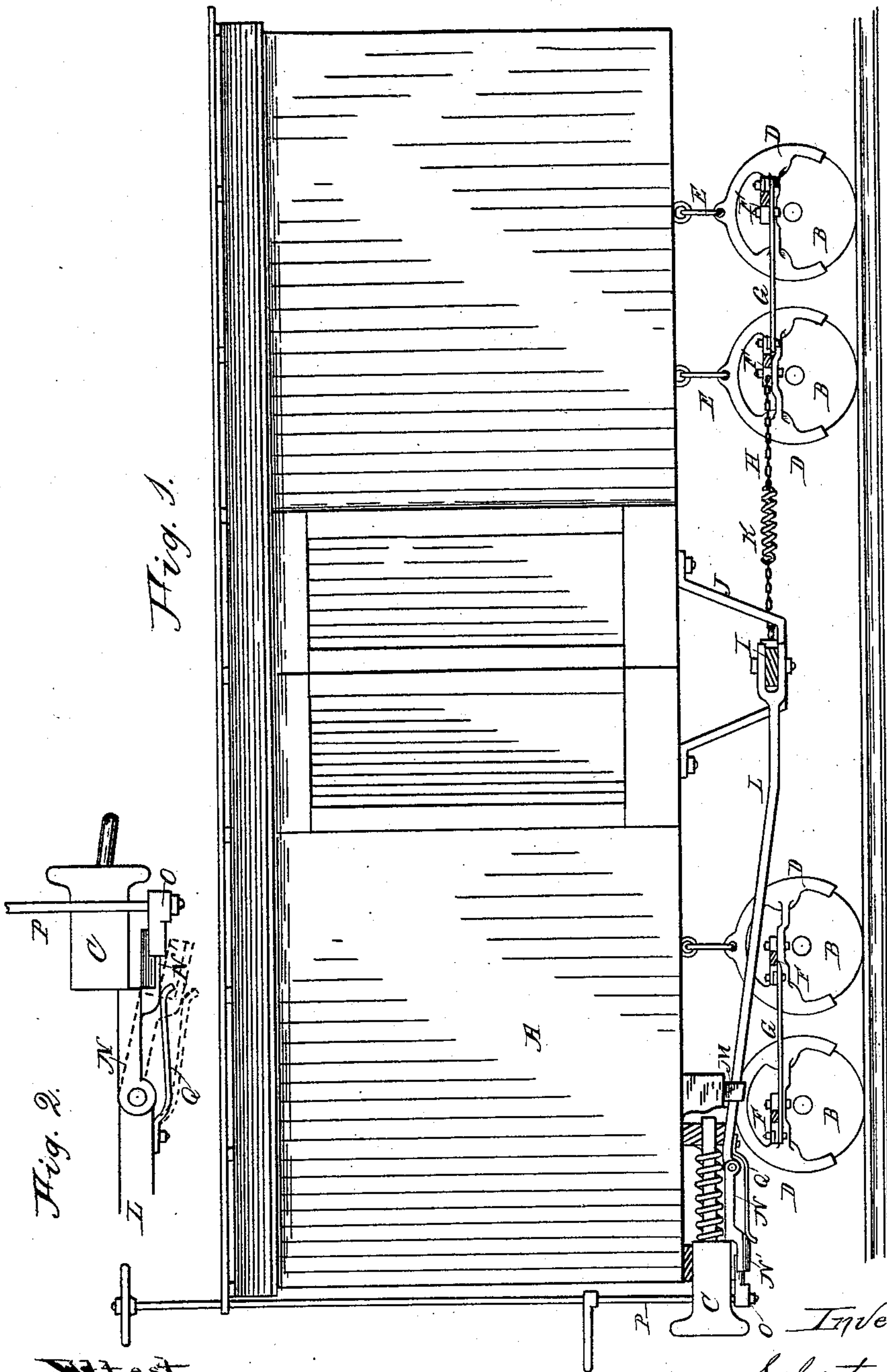
(No Model.)

2 Sheets—Sheet 1.


S. R. LEWIS.
CAR BRAKE.

No. 455,753.

Patented July 14, 1891.



Attest
S. M. B. Prainerd.
H. B. Hawley.

 Inventor:
Sylvester R. Lewis,
By J. M. St. John,
Atty.

(No Model.)

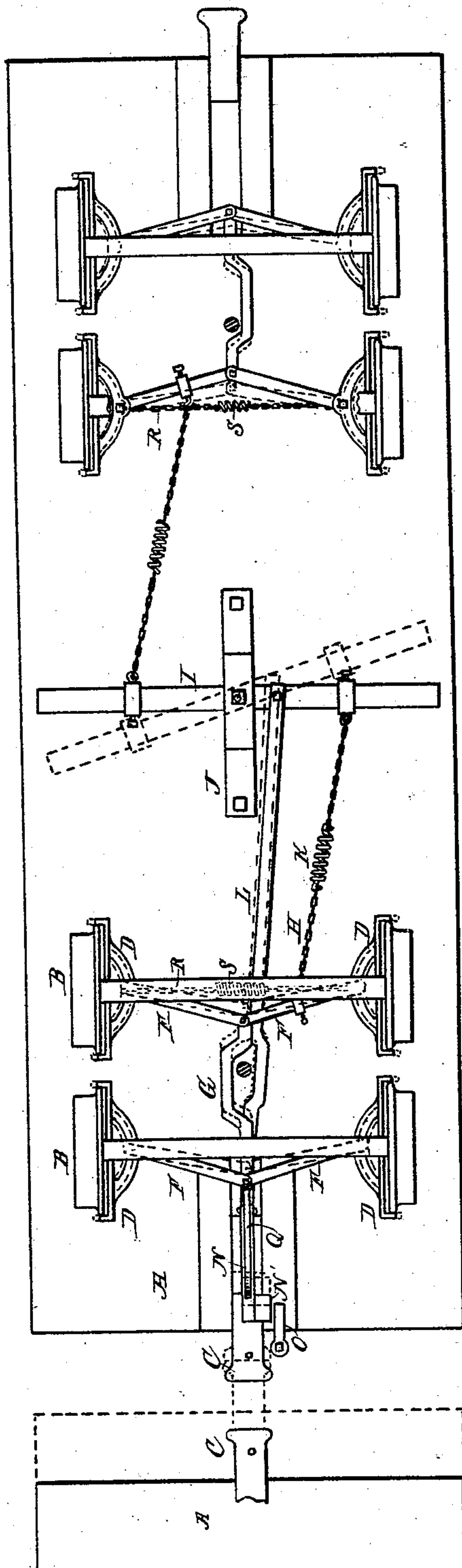
2 Sheets—Sheet 2.

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Fig. 3.



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UNITED STATES PATENT OFFICE.

SYLVESTER ROCKWILL LEWIS, OF GARRISON, IOWA.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 455,753, dated July 14, 1891.

Application filed June 8, 1888. Serial No. 276,544. (No model.)

To all whom it may concern:

Be it known that I, SYLVESTER ROCKWILL LEWIS, a citizen of the United States, residing at Garrison, in the county of Benton and State of Iowa, have invented certain new and useful Improvements in Car-Brakes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it ap-
10 pertains to make and use the same.

The object of this invention is to provide for the setting of car-brakes automatically by the forward movement of the cars following a slacking of the speed at the front end of
15 the train.

The invention consists in the construction, combination, and arrangement of parts, as hereinafter set forth and claimed.

In the accompanying drawings, forming a
20 part of this specification, Figure 1 is a side elevation of a car and an ideal view of the trucks thereunder, showing also the brake. Fig. 2 is a fragmentary view of the draw-head and contiguous parts of the brake on the op-
25 posite side from that shown in Fig. 1. Fig. 3, Sheet 2, is a plan view of the device from the under side.

Similar letters of reference indicate corresponding parts.

30 Referring to the drawings, A is a common freight-car, and B B the trucks thereunder. These are of the usual style and need not be particularly described. The car is provided with the usual draw-heads C C, which,
35 as is common, have a limited movement endwise.

Following is a description of my brake:
D D are brake-shoes, suspended from the under side of the car by links E E and adapted
40 to bear against the flanged side of the wheels. Suitably pivoted to these are toggle-arms F F, the two pairs of each truck being connected by a rod G. From one of the inner pairs of arms a chain H passes to a pivoted bar I,
45 mounted on a suitable bracket J at the middle of the car. This chain should not be continuous, but be provided with a spring K to

prevent the brake being set too tight. To the bar I is connected a longitudinal bar L, passing through a suitable box M. The outer
50 end of this bar is provided with a hinged latch or tongue N, pivoted to swing downwardly, its outer end adapted to engage with a shoulder on the under side of the draw-head. From this tongue N an inclined lip N'
55 extends beyond the point of engagement with the draw-head and is adapted to engage with the arm O on the upright rod P. By turning this rod so as to throw the arm O under the draw-head the tongue is depressed and dis-
60 engaged from the draw-head. This permits of the cars being used in the same manner as those in common use in switching and the like. A spring Q holds the tongue in normal position, as shown in Fig. 1.
65

The operation of the brake will now be readily understood. On the slowing up of the forward end of the train, as in descending grades and in stopping the train, the cars naturally close together. The effect of this
70 is to push backward on the pivoted bar I, through the medium of the connecting-bar L, and thus in turn, through the medium of the chains, straighten out the toggles in the manner indicated by the dotted lines in Fig. 75
3, thus pressing the brake-shoes against the sides of the wheels. This action is communicated to all the cars, and thus the train is easily and automatically controlled. A cross-chain R, having a spring S and connected
80 with opposite brake-shoes, serves to disengage them from the wheels and restore the parts to normal position.

Having thus described my invention, what I claim as new, and desire to secure by Let-
85 ters Patent, is—

1. In a car-brake, the combination of brake-shoes D D, toggle-arms F F, connecting-rod G, chain H, pivoted bar I, longitudinal bar L, having pivoted latch or tongue N, and
90 draw-head C, having a limited movement endwise, substantially as and for the purpose set forth.

2. The combination, with a brake and set-

ting apparatus, substantially as described,
of the hinged tongue N, having the inclined
lip N', and the rod P, having arm O, and the
spring Q, all substantially as and for the pur-
5 pose set forth.

3. In a car-brake, the combination of brake-
shoes D D, toggle-arms F F, cross-chain R,
having spring S, and means, substantially as
described, for automatically actuating said

toggle-arms to press the brake-shoes against to
the sides of opposite wheels.

In testimony whereof I affix my signature in
presence of two witnesses.

SYLVESTER ROCKWILL LEWIS.

Witnesses:

JOSEPH OLIVER SCHOONOVER,
ELMER ABIAL GRAVES.