

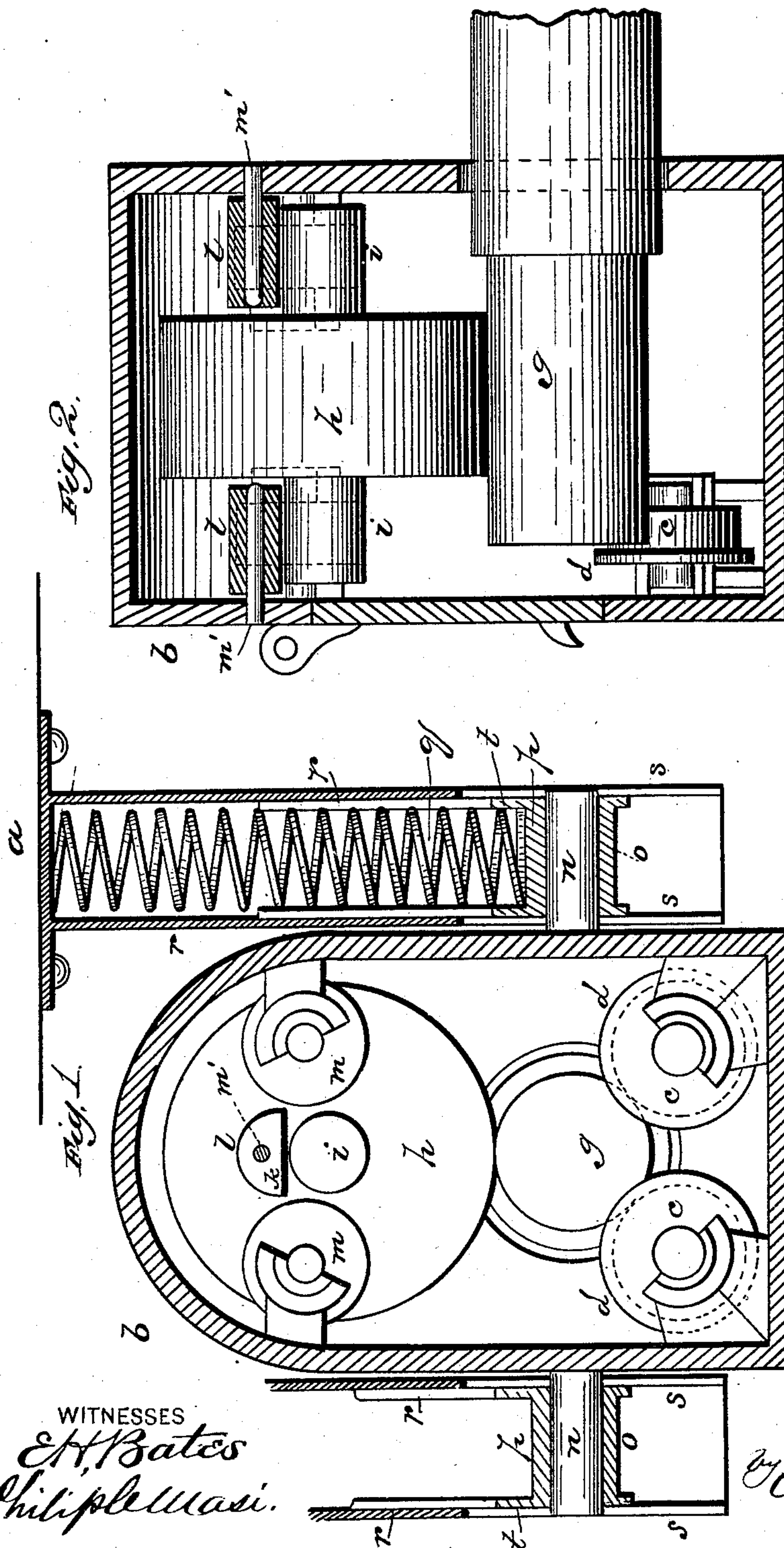
(No Model.)

R. BREWER.

CAR AXLE BOX.

No. 285,217.

Patented Sept. 18, 1883.



WITNESSES
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UNITED STATES PATENT OFFICE.

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CAR-AXLE BOX.

SPECIFICATION forming part of Letters Patent No. 285,217, dated September 18, 1883.

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To all whom it may concern:

Be it known that I, RUSSELL BREWER, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Car-Axle Boxes; and I do 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a vertical sectional view of my car-axle box, and Fig. 2 is a vertical cross-sectional view of the same.

This invention has relation to car-axle boxes; and it consists in the novel construction and arrangement of devices, as will be hereinafter
20 fully described, and particularly pointed out in the claims appended.

The main object of my invention is to maintain a uniform friction between the axle-journal and the main friction-wheel in the journal-box of a railroad-car. Another object is to assist the starting of the car in either direction by mechanism adapted to utilize the weight of the car by throwing it eccentrically upon the
25 axles at the time the draft is applied thereto. Another object is to provide for the lateral motion of the journal-box, which is necessary to maintain a uniform frictional contact between the journal and the main friction-wheel. In order to accomplish these objects I resort
30 to the mechanism hereinafter described, and shown in the annexed drawings.

a designates the floor or platform of a car. *b* designates the journal-box, provided with the usual door for lubricating purposes. In
40 the lower outer corners of the journal-box *b* lubricating and flanged bearing-wheels *c* are provided, the flanges *d* being designed to prevent undue lateral motion of the axle in the journal in its box.

h designates the main friction-wheel, provided with friction-journals *i i*, which engage the horizontal faces *k* of semi-cylindrical piv-
45 oted rubbing-pieces *l l*, the journals *m'* of which extend inwardly from the vertical walls
50 of the journal-box, as shown. On each side of

the friction-journals *i i* friction-wheels *m m* are journaled, the rubbing-pieces being vertically above the journals *i i*. At the front and rear of the journal-box journals *n n* are provided, on which are slipped the boxes *o o* of the
55 spring-seats *p p*. Springs *q q* rest in the seats *p p*, and are prevented from leaving their seats by the jaws *r r*, consisting of the forks *s s*, depending from the connecting-arm *t* on each side of the springs *q q* and to the bottom of
60 the seats *p p*. The car-wheels have a lateral play, caused by the contact of the flanges with the track-rails, of about three-sixteenths of an inch, which is imparted to the axle *g*, and the
65 flanges on the lubricating-wheels are intended to meet the ends of the axle and impart this motion to the journal-box *a*, which will yield to this impulse by reason of the journals *n n* oscillating in the boxes *o o* of the spring-seats
70 *p p*. In starting the car, (this invention being applicable to street-cars, as well as to all others,) the friction upon the wheels of the car will cause the friction-journals *i i* to move back-
ward from the direction of the draft against one set of the friction-rollers *m*, and will at
75 the same time tilt the pivoted rubbing-pieces in an opposite direction, and the weight of the car will then come upon the main friction-wheel and assist in propelling or starting it, for the reason that the weight is then in rear
80 of the vertical diameter of the axle *g*, and the weight of the car adds its momentum in the propulsion of the car. The advantage of the lateral oscillation of the journal-box is obvious, as it prevents binding of the frictional
85 parts. The jaws prevent any accidental misplacement of the springs, and permit them at all times to have ample vertical play.

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

1. In a car-axle box, the combination, with the axle-journal and its lubricating friction-wheels, of the main friction-wheel, provided with friction-journals, with the rubbing-pieces
95 pivoted above said journals, and the friction-wheels adapted to come in contact with the friction-journals of said main friction-wheel, substantially as specified.

2. In a car-axle box, the combination, with 100

the car-axle box provided with the front and rear projecting journals, of the spring-seats provided with boxes to fit said projecting journals, the springs seated therein, and the
5 spring-jaws connected to the car and protecting the springs, substantially as specified.

3. In a car-axle box, a pivoted rubbing-piece located above the friction-journals of the
10 tion-wheels for engaging the friction-journals

of the main friction-wheel, whereby the weight of the car may be imparted to the axle to aid in starting the same, substantially as specified.

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

RUSSELL BREWER.

Witnesses:

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