(No Model.)

G. E. BLAINE.

SPRING DUMPING CAR.

No. 353,531. Patented Nov. 30, 1886.

Fig. 1.

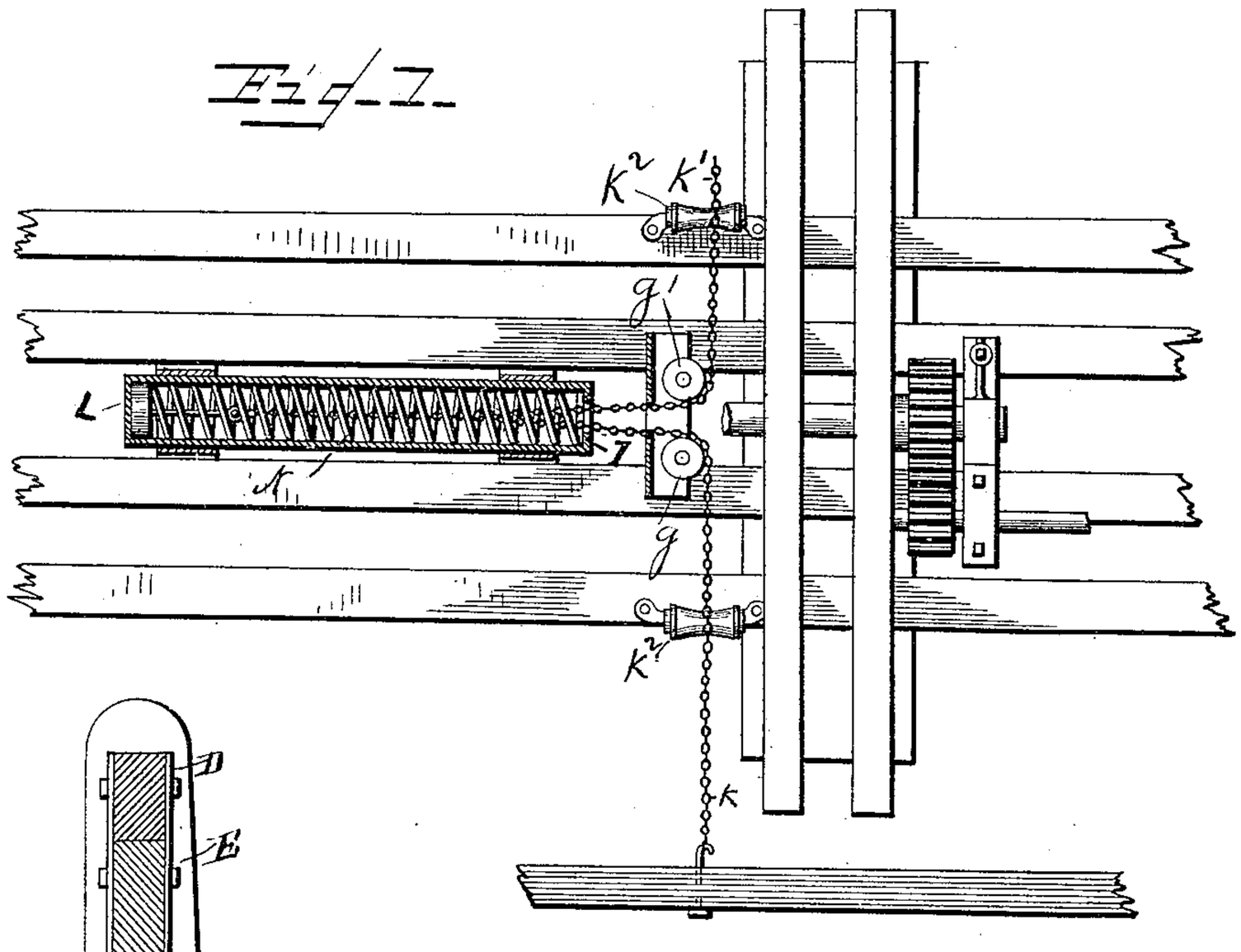

Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE E. BLAINE, OF DAYTON, OHIO.

SPRING DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 353,531, dated November 30, 1886.

Application filed April 1, 1886. Serial No. 197,404. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. BLAINE, of Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Spring Dumping-Cars; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention has relation to dumping-cars, and is in the nature of an improvement upon the construction of car shown in my Patent No. 335,885, dated February 9, 1886, the object of this improvement being to simplify and improve the latch-operating mechanism and spring mechanism by which the car is prevented from dumping too far on either side, and all jarring which would be occasioned at the end of the dump is obviated.

My invention consists in the improved construction, arrangement, and combination of parts, hereinafter fully described, and afterward specifically pointed out in the claims.

In the drawings, Figure 1 is a partial view of the bottom of the body of a car, the trucks being removed; and Fig. 2 is a partial vertical cross-section of a portion of the car.

Like letters of reference mark the same parts in both the figures.

Referring to the drawings by letters of reference, A is the floor of the car-body, B one of the side beams or sills thereof, and C one of the side standards, upon which, by means of a pivot, as at D, a door, E, is attached, free to swing outward, except when stopped by a latch, a', which is pivotally connected at a'' to a bar, a. The bar a is pivoted to a bracket, E, at F', and has secured at its inner end a weight, b.

H H' H'' are the longitudinal reach-bars of the draw-frame of the car. To the reach-bar H is secured one end of a chain, G, which passes up over a sheave, f, secured under the floor A of the car-body, and thence down, its outer end being secured to the weight b.

As the body of the car is dumped, the inner end of the chain G being stationary, the said chain will be drawn through or over the sheave, raising the inner end of the bar a, and consequently depressing its outer end, withdrawing the latch a' downward below the level of the floor a, leaving the swinging door free to be pushed outward by the load of the car.

Secured to the side sill, b, of the car, on each side, is the outer end of a chain, K K', which, passing inward around sheaves k^2 k^2 and g g', enters a short distance into a cylinder, L, secured to the reach-bars H' H'' of the draw-frame, where they join, and as one chain continuing, attaching near the inner end to a rod, M, which is provided with a block at its inner end in the rear of a spiral spring, N, within said cylinder L, and has bearing against small inward-projecting flanges l at the outer end of the cylinder. The outer ends of these chains being connected to the body of the car, they will be drawn outward (alternately) as the body is dumped, and will cause the spring N to be compressed, thus limiting the dumping movement and affording a spring stop or bumper at the end of the dump.

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

1. The combination, with the body of a dumping-car and the non-dumping portion thereof, of a latch attached to the body, a weight attached to said latch, and a chain secured at one end to said weight and its opposite end to the draw-frame, as set forth.

2. The combination, with the body of a dumping-car and the draw-frame thereof, of a door pivoted to standards on the body, a latch pivoted to the body and adapted to normally prevent the swinging of the door, a pulley secured to the body, and a chain, one end of which is secured to the latch and the other end to the draw-frame, said chain passing over said pulley, as set forth.

3. The combination, with the body of a dumping-car and the draw-frame thereof, of two chains attached, respectively, at their outer ends to the side beams of the body and at their

other ends to each other, a cylinder secured to the draw-bars, a spiral spring within said cylinder, a bar attached to the inner ends of said chains in said cylinder, and block at the inner end of said bar to bear upon and compress said spring when the body is dumped in either direction, as set forth.

In testimony that I claim the foregoing as my own I hereto affix my signature in presence of two witnesses.

GEORGE E. BLAINE.

Witnesses:

BARRY S. MURPHY,

C. D. IDDINGS.