

(No Model:)

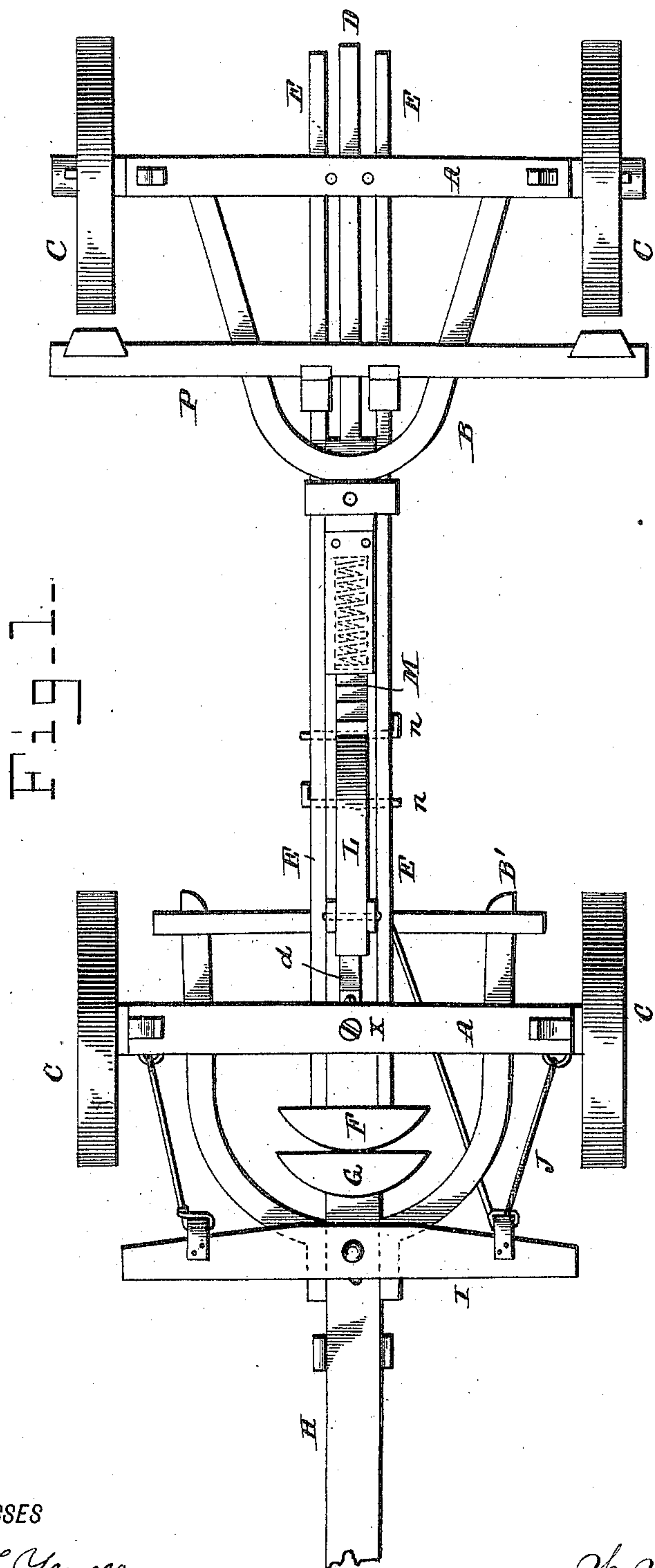
2 Sheets—Sheet 1.

W. W. SMOOT & Q. D. WILCOXSON.

AUTOMATIC BRAKE.

No. 299,031.

Patented May 20, 1884.



WITNESSES

Edwin L. Jewell.
J. J. Mc Carthy.

INVENTORS,

W. H. Smoot and
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(No Model.)

2 Sheets—Sheet 2.

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Fig. 2-

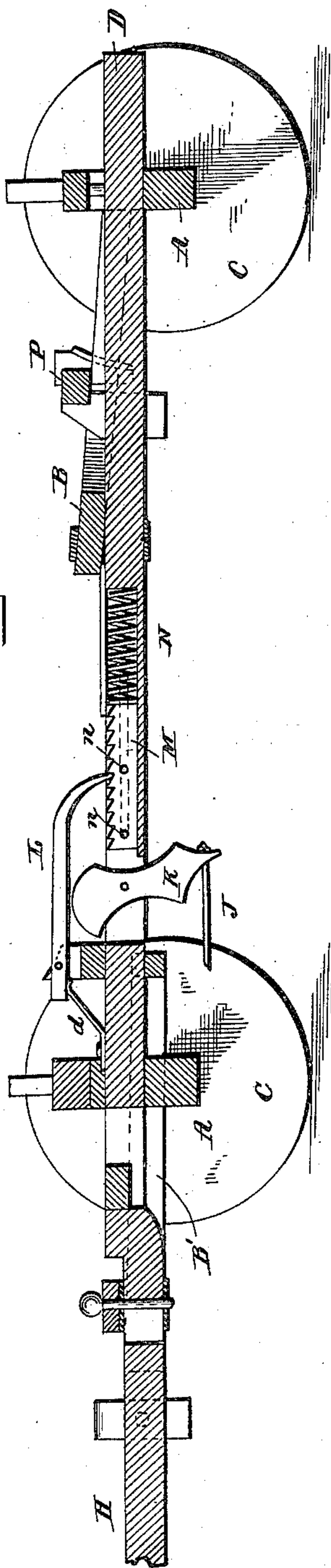
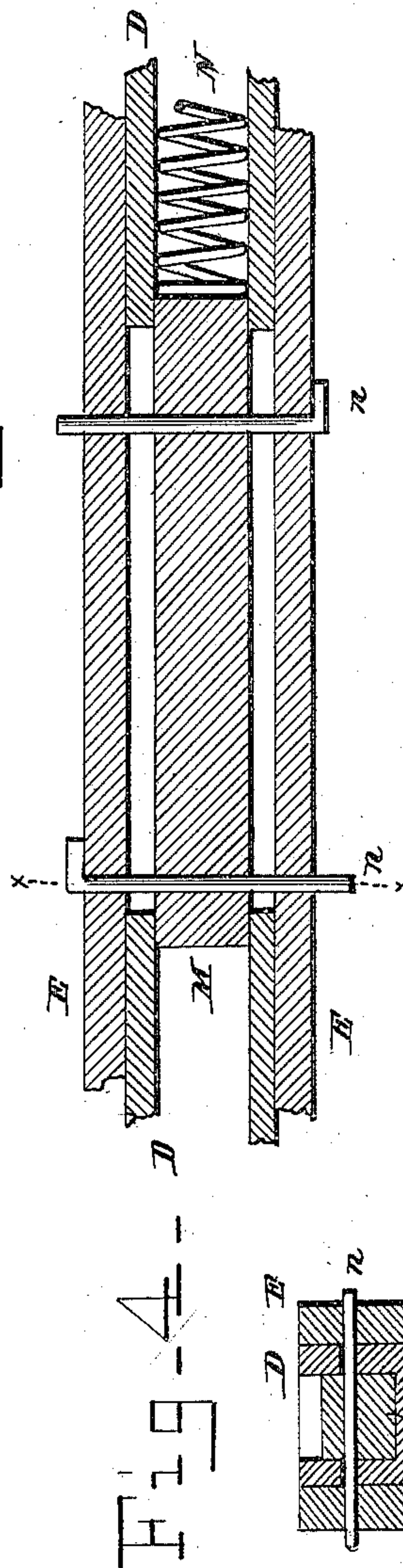


Fig. 3-



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UNITED STATES PATENT OFFICE.

WALKER W. SMOOT AND QUINN D. WILCOXSON, OF BOSTON STATION, KY.

AUTOMATIC BRAKE.

SPECIFICATION forming part of Letters Patent No. 299,031, dated May 20, 1884.

Application filed February 23, 1884. (No model.)

To all whom it may concern:

Be it known that we, WALKER W. SMOOT and QUINN D. WILCOXSON, citizens of the United States, residing at Boston Station, in the county of Pendleton and State of Kentucky, have invented certain new and useful Improvements in Automatic Wagon-Brakes, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to wagon-brakes; and the object we have in view is to make an automatic brake and lock which may be released by the movement of one end of the double-tree after having been applied, as will be hereinafter more particularly set forth.

In the accompanying drawings, making part of this specification, Figure 1 represents a plan view; Fig. 2, a longitudinal section; Fig. 3, a horizontal section of a portion of the perch-pole and its connections, and Fig. 4 a cross-section of same.

In the figures, A A represent the two axles of a four-wheeled wagon or vehicle, which are carried by the wheels C C and provided with the usual hounds, B B'. The axles are mounted with the usual bolsters.

D represents the perch-pole of the vehicle, the forward end of which is secured between the front axle and the bolster by means of the king-bolt *x*. The central portion of this perch, between the two hounds, is boxed out or recessed, and in this recess or box is a bolt, M. One end of this bolt is surrounded with a coiled spring, and a portion of its upper side is provided with a rack-bar, the use of which will be hereinafter described.

E E represent two parallel bars, which are located upon two opposite sides of the perch-pole. The rear ends of these bars play between the rear bolster and axle, while their forward ends play in similar manner between the forward bolster and axle. The two forward ends of these bars are connected by a crescent-shaped block, F, its convex side being toward the tongue of the wagon. Bolts or pins *nn* pass through the sides of the bars E and through the bolt M, confining the two together. The bolts *nn* pass through horizontal slots in the perch-pole, in which they have sufficient play to allow the brake to operate.

P represents the brake-bar, which is provided with suitable blocks near its extremities. This bar is firmly secured to the two longitudinal bars F.

L represents a ratchet-tooth, which is pivoted to a standard on the perch-pole, and which is adapted to engage the teeth of the rack-bolt M.

K represents a lever, which is vertically situated and pivoted in an opening in the perch-pole. The upper end of this lever is curved and lies beneath the ratchet-tooth L. To the lower end of the lever K is a cord, which, when pulled forward, causes the upper end of said lever to act against the under side of the tooth L and lift it out of connection with the teeth of the bolt M. A suitable spring, *d*, serves to actuate the tooth in one direction to engage the teeth of the bolt. One end of the cord J, which operates the lever, is secured to the double-tree near one end. If it is secured to the left end, then it will be seen that by a little movement to the right of the team a forward movement of the left wheel or saddle horse beyond the horse on the off-side will cause sufficient change in the angle of the double-tree to cause the cord J to move the lever K, and thus throw the tooth L out of gear with its ratchet bar or bolt.

H represents the tongue of the vehicle, which is slotted longitudinally near its rear end, and a bolt is passed down through this slot and through plates which connect the forward ends of the front hounds. The tongue is thus allowed an endwise movement, and is provided with an end piece, G, which abuts against the block F when the brake is being applied.

In going downhill or in stopping suddenly, the operation is as follows: The wagon moving forward and the horses pulling back causes the tongue to slide endwise backward and abut against the block F. The block F, of course, moves the two bars E (which carry the brake-bar) backward until the brake-blocks strike the hind wheels. The bolt M, being secured to the bars E, is carried back with said bars, and the tooth L on the perch-pole, catching in the teeth of the bolt, serves to hold the brake-blocks on bar P securely and tightly against the wheels. In order to release the brake it is only necessary to advance the horse

at that end of the double-tree to which the cord J is secured.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the slotted perch and the hounds, of the sliding bars on each side of the perch, the brake-bar, the convex buffer at the forward end of the bars, the sliding pole adapted to abut against the buffer, and the ratchet-bar and its detaining-pawl, all arranged to operate the brake and hold it against the wheels, as specified.

2. The combination, with the slotted perch, the hounds, and the brake, of the ratchet-bar, the spring actuating the same, the pawl, and its operating-lever, all arranged substantially as described.

3. The combination, with the recessed perch, the brake, and the sliding bars, of the ratchet-

bar, the spring actuating the same, the pawl and lever, the pins securing the ratchet-bar in the perch, the whiffletree, and the cord adapted by means of the said whiffletree to operate the lever and pawl, for the purpose specified.

4. The combination, with the perch, the hound, and brake, of the sliding bars, the ratchet-bar, the spring, the buffer on the end of the bars, the sliding pole, the pawl and lever, the whiffletree, and the cord connecting the same to the lever, all the parts combining to automatically operate the brake, substantially in the manner and for the purpose specified.

In testimony whereof we affix our signatures in presence of two witnesses.

WALKER W. SMOOT.

QUINN D. WILCOXSON.

Witnesses:

J. K. WANDELOHR,

GEO. D. LEE.