

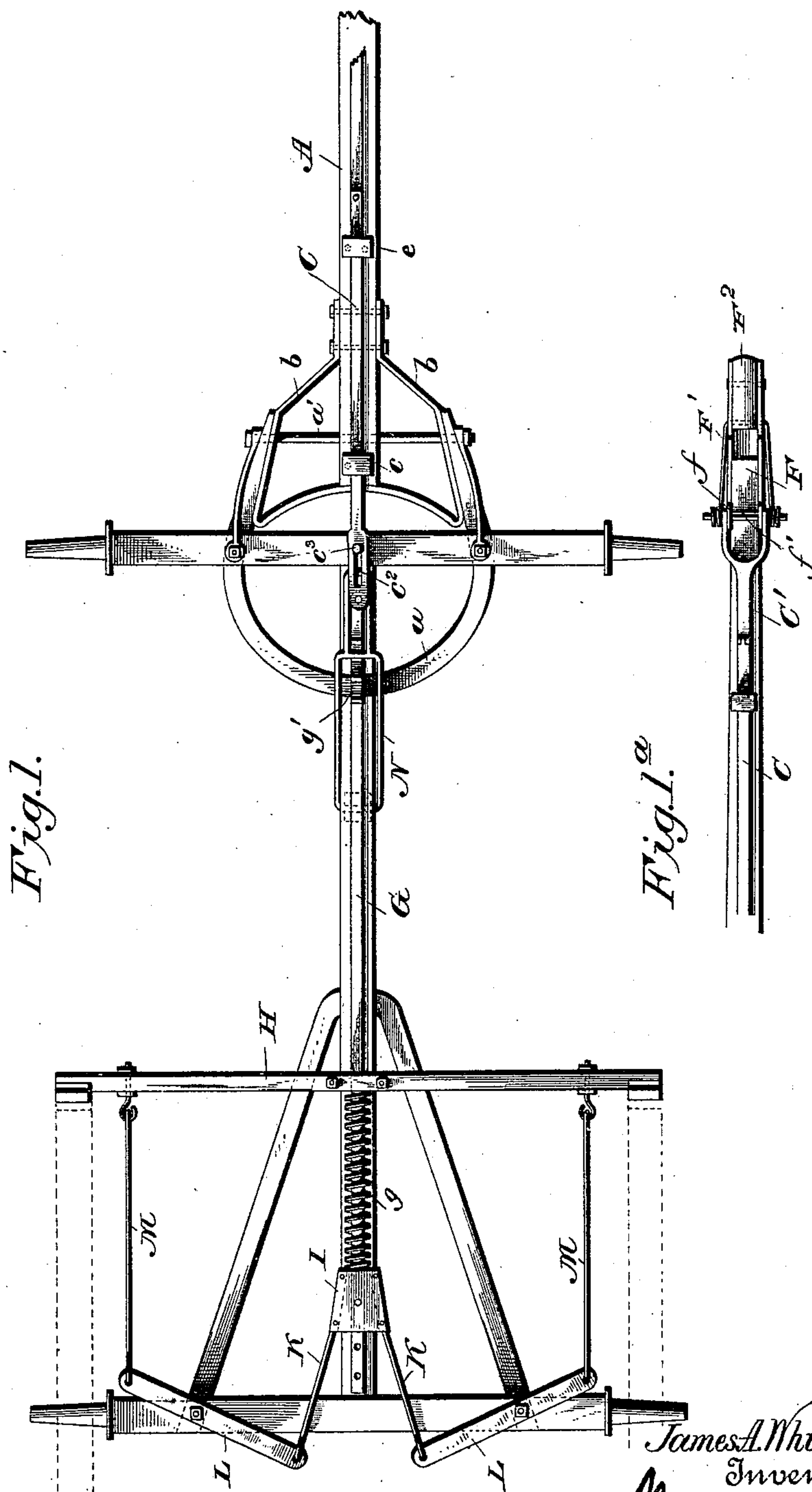
(No Model.)

2 Sheets—Sheet 1.

J. A. WHITCOMB.
WAGON BRAKE.

No. 426,974.

Patented Apr. 29, 1890.



Witnesses
G. S. Elliott
E. M. Johnson

By his Attorney

James A. Whitcomb.
Inventor

2 Sheets—Sheet 2.

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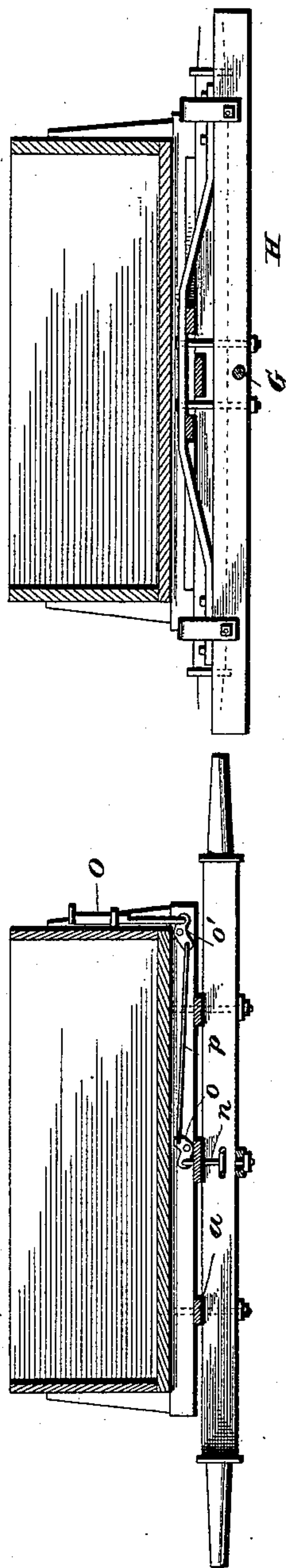
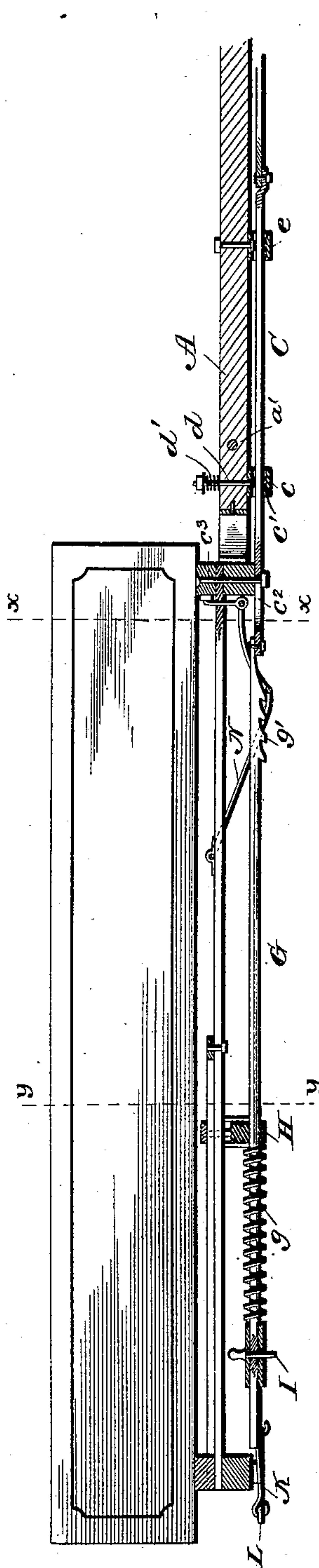


Fig. 4.

Fig. 3.

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UNITED STATES PATENT OFFICE.

JAMES ALLEN WHITCOMB, OF LYONS, NEBRASKA.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 426,974, dated April 29, 1890.

Application filed February 21, 1890. Serial No. 341,315. (No model.)

To all whom it may concern:

Be it known that I, JAMES ALLEN WHITCOMB, a citizen of the United States of America, residing at Lyons, in the county of Burt and State of Nebraska, have invented certain new and useful Improvements in Automatic Wagon-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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in automatic wagon-brakes.

The object of the invention is to provide a wagon-brake which will be automatically set when the weight of the wagon or a part thereof comes upon the neck-yoke of the harness, means being provided for locking the brake against the wheel, and a bar which extends within reach of the driver for unlocking the brake; and my invention consists in the construction and combination of the parts, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a bottom view of a wagon, showing my improved automatic brake applied thereto, Fig. 1^a being a similar view of the end of the tongue. Fig. 2 is a longitudinal sectional view, Fig. 2^a being a continuation thereof. Fig. 3 is a vertical sectional view taken on the line *xx* of Fig. 2. Fig. 4 is a sectional view taken on the line *yy* of Fig. 2.

The running-gear of the wagon is of ordinary construction, the pole being pivoted between the projecting ends of the hounds *a* by means of a rod *a'*, which passes through the ends of the hounds and the frame *b* attached to the pole, as well as the end of the pole. The pole *A* is provided near its rear end with a box or casing *c*, which contains anti-friction rollers *c'*, and through this box passes the rod *C*, to be hereinafter described. The box *c*, containing the anti-friction rollers, is attached to the pole by a bolt *d*, which is encircled above the pole by a spring *d'*, which bears upon the pole and a plate above, which is the retaining-nut. By this construction

the pole can be elevated without throwing undue strain upon the connecting-rod *C*, which is of such a strength that it will compress the spring before bending. This rod also serves as a tongue-support. A boxing *e*, also having anti-friction rollers, is attached to the tongue near the front end of the rod *C*, and by means of these boxes and anti-friction rollers the rod *C* can have an easy front and rear movement. The front end of the rod *C* is coupled to a short bar *C'*, having a front bifurcated end, which is pivoted to the sides *f* of the pole-tip *F*, said pole-tip being pivoted to the end of the pole, as shown, by a pin *f''*, which projects beyond the sides of the pole-tip and has perforations for the reception of the coiled ends of a spring *F'*, the looped portion thereof which traverses the pole-tip bearing thereon, so as to normally hold the pole-tip on a line with the pole. The end of the pole-tip has pivoted thereto a gravity-catch *F²*, which will hold the neck-yoke ring thereon. The rear end of the rod *C* is provided with a slot *c²*, through which passes a pin *c³*, having a head, said pin serving as a support for the rear end of the rod, and at the rear of the slotted portion the rod *C* is connected by means of a bolt to the rod *G*, which is supported beneath the running-gear and passes through a central opening in the brake-bar *H*. In rear of the brake-bar this rod *G* is encircled by a coiled spring *g*, which bears upon the brake-bar and upon the front ends of plates *I*, which are connected to each other and have a central opening through which passes a bolt for adjusting the plates upon the rod *G*, said rod being provided at its rear end with perforations for this purpose. Between the plates *I* are secured bars *K*, the rear ends of which are attached to the long ends of levers *L*, the short ends of said levers being suitably connected by bars *M* to the brake-bar *H*. The rod *G* near its front end is provided with ratchet-teeth *g'*, with which the front cross-bar of a bail or loop *N* engages so as to hold the brake-blocks against the wheels, and this loop or bail has its forward portion curved, as shown in Fig. 2, and is connected by a link *n* to a bell-crank lever *o*, which is attached to the front cross-bar or bolster of the running-gear, this bell-crank lever being connected by a rod *p* to a reverse

bell-crank lever *o'*, having a vertically-sliding bar *O*, which passes through suitable guides and has a catch which engages with one of the guides for holding the sliding bar elevated and the bail or loop *N* in engagement with the ratchet-teeth *g'*.

In operation when the wagon in going downhill moves forward, pressure will be brought to bear upon the neck-yoke, which will elevate the casting or pole-tip *F*, and will move the rods *C* and *G* forwardly, which motion is communicated by the levers *L* to the brake-bar, so that the brake-shoes thereon will be brought in contact with the wheels to retard the rotation thereof. The ratchet-teeth will engage with the loop or bail and hold the brake on until the sliding bar is moved out of engagement with its guide, and when the sliding bar *O* is depressed the spring will cause the parts to assume their normal position.

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

1. The combination, in an automatic wagon-brake, of a pole or tongue having a pivoted tip with depending lugs and a spring for normally holding said tip in line with the tongue, the neck-yoke being adapted to be secured thereto, connecting-rods beneath the pole attached to a bar beneath the reach, said bar being connected to pivoted levers, said levers having rods for connecting the same to the brake-bar, substantially as shown, and for the purpose set forth.

2. In an automatic wagon-brake, the combination of a rod *C*, movably connected to the pole and front axle, said rod also being connected to a connecting-rod *G*, having adjustable plate with bars *K*, pivoted levers *L*, secured to the rear axle, and bars *M* for con-

necting the short ends of said levers to the brake-bar, said rod *G* having ratchet-teeth and means for holding the same locked, substantially as set forth.

3. In combination with the pivoted pole or tongue *A*, having supports *c* and *e* for a rod *C*, connecting-rod *G*, having ratchet-teeth *g'*, spring *g*, which abuts against the brake-bar and fixture *I* on said bar, connecting-bars *K* and *M*, and levers *L*, a pivoted bail or loop *N*, adapted to engage with the ratchet-teeth *g'*, and connections for raising and lowering said bail or loop, substantially as shown, and for the purpose set forth.

4. In combination with an automatic brake constructed substantially as shown, and having as an essential part a rod *G* with ratchet-teeth, a pivoted bail adapted to engage therewith, a loop for connecting the forward portion of said bail to a bell-crank lever, a rod *p* for connecting said bell-crank lever to a bell-crank lever *o'*, and a sliding bar *O* for raising and depressing the bail, said sliding bar having a catch for holding it raised, substantially as set forth.

5. The combination, in an automatic brake, of a pole-tip or casting *F*, pivoted to the pole by a pin *f'*, the ends of which are encircled by a spring which bears upon the forward portion of said tip so as to hold it normally depressed, depending lugs *f*, to which are pivotally attached the ends of a bifurcated connecting-bar *C'*, and a gravity pawl or catch *F²* for retaining the ring of the neck-yoke thereon, substantially as set forth.

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

JAMES ALLEN WHITCOMB.

Witnesses:

WM. D. WILSON,
A. L. DACKS.