(No Model.) 2 Sheets—Sheet 1.

# F. M. SWANN & W. W. ADKINS.

## WAGON BRAKE.

No. 332,681. Patented Dec. 15, 1885.

Fig. 1.

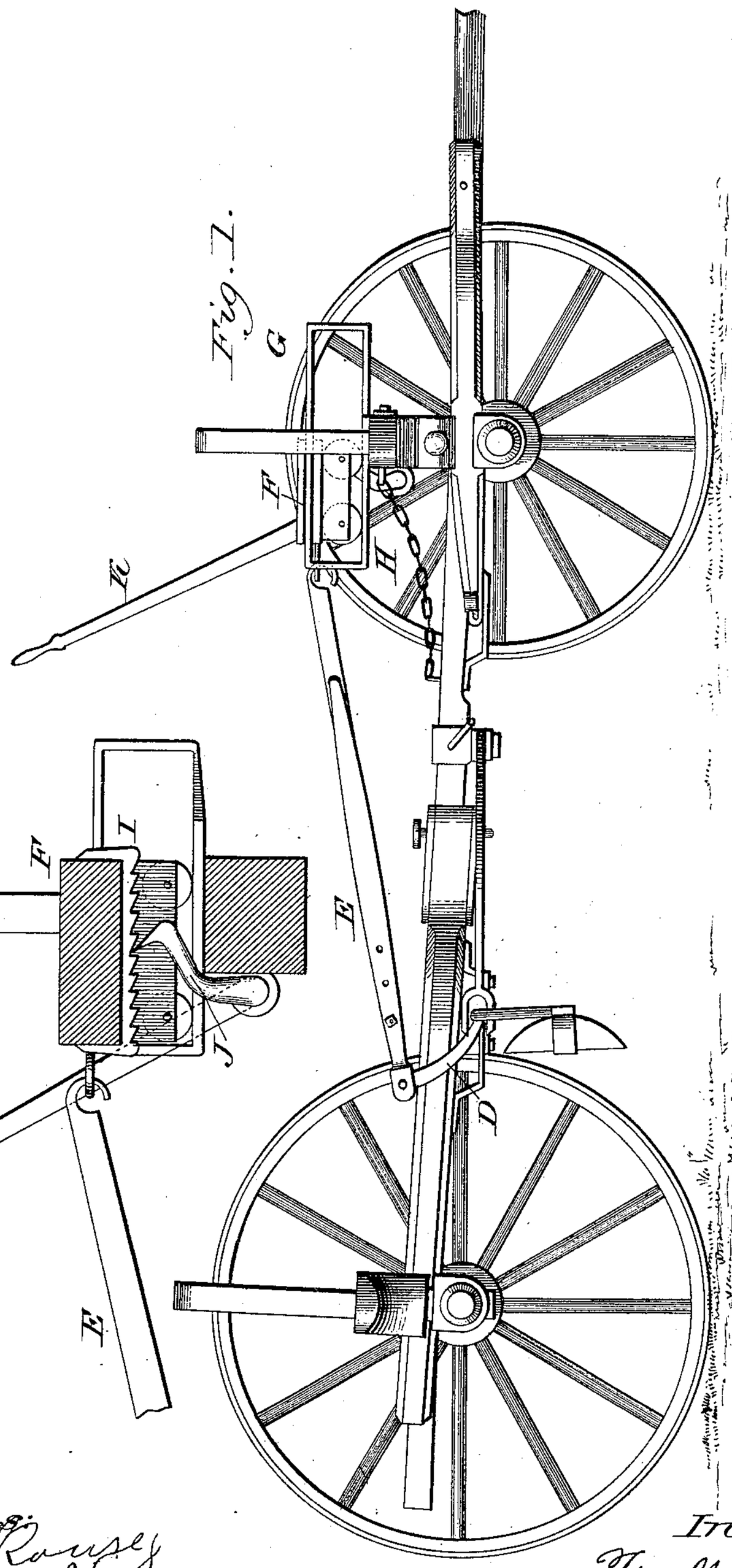
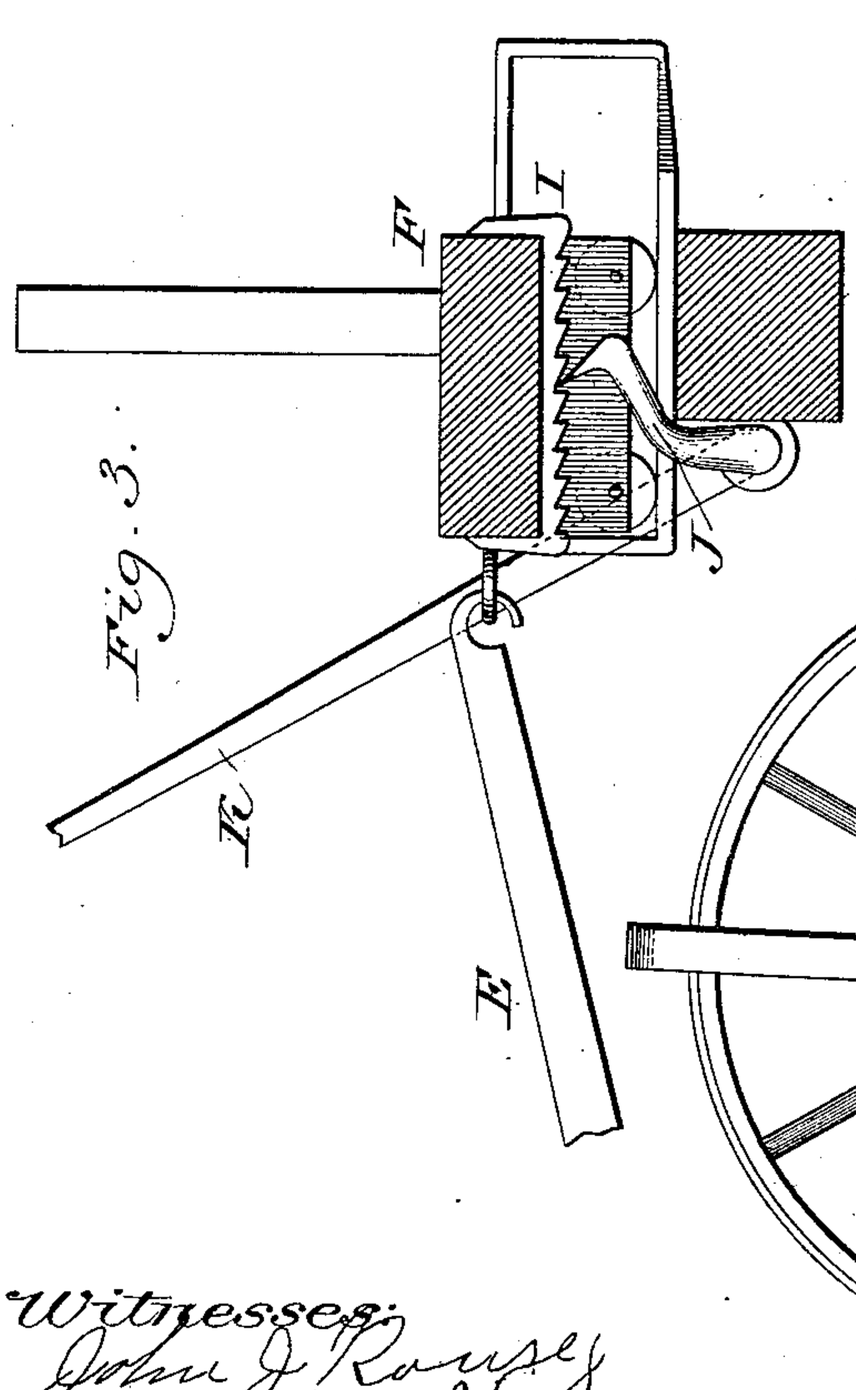



Fig. 3.




Witnesses:
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Frank Beckett

Inventors:
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(No Model.) 2 Sheets—Sheet 2.

# F. M. SWANN & W. W. ADKINS.

## WAGON BRAKE.

No. 332,681. Patented Dec. 15, 1885.

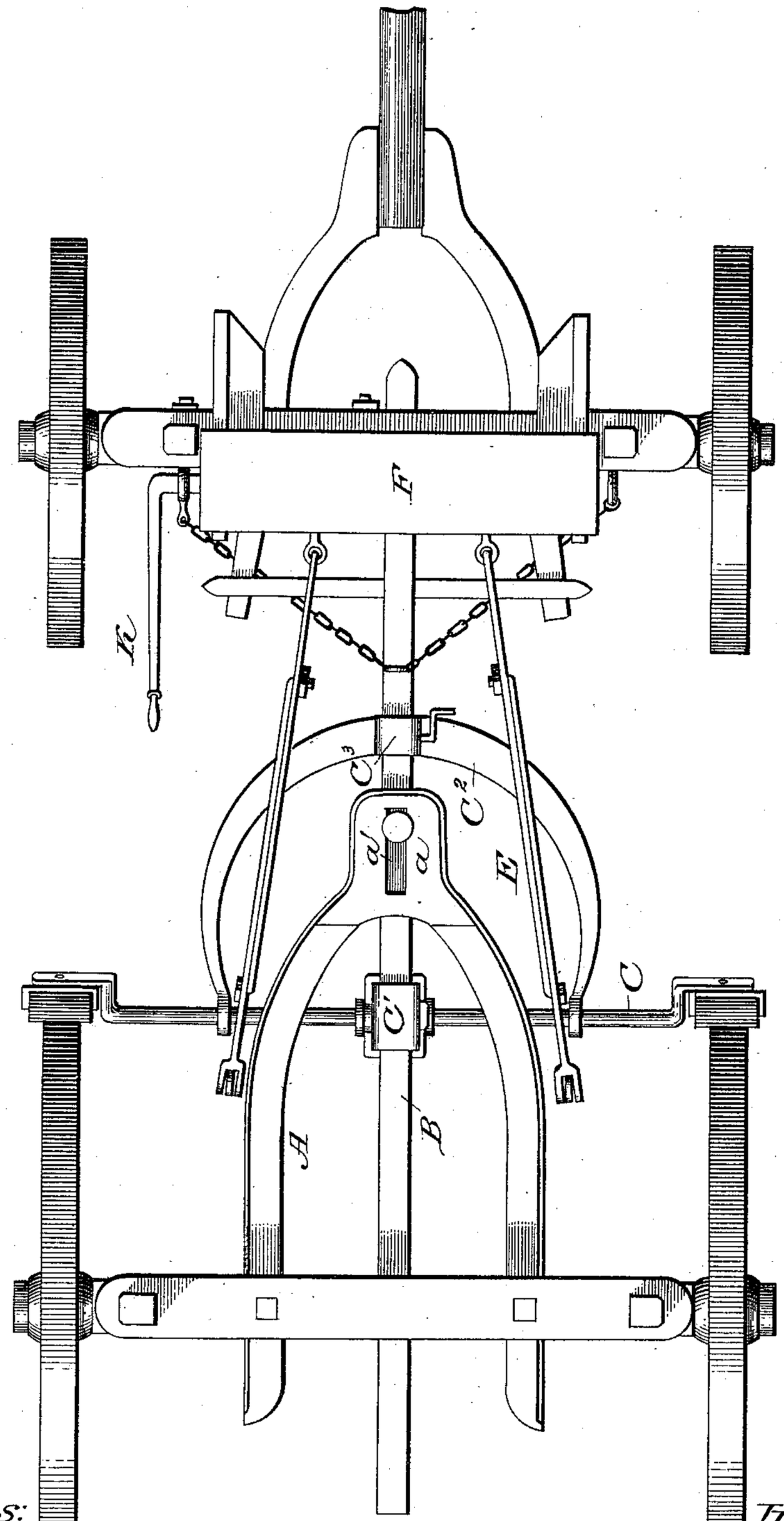


Fig. 2.

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# UNITED STATES PATENT OFFICE.

FRANCIS MARION SWANN AND WILLIAM WEST ADKINS, OF TYLER CREEK, WEST VIRGINIA.

## WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 332,681, dated December 15, 1885.

Application filed March 10, 1885. Serial No. 158,391. (No model.)

*To all whom it may concern:*

Be it known that we, FRANCIS M. SWANN and WM. W. ADKINS, citizens of the United States, residing at Tyler Creek, in the county of Cabell, State of West Virginia, have invented an Improved Automatic Wagon-Brake, of which the following is a specification.

Our invention relates to wagon-brakes, and has for its object the provision of means for throwing the brake into contact with the wheel, and also of positively disengaging it and holding it out of contact therewith.

The invention embraces a novel construction of rear hounds, means for attaching and moving the brake-rod on the coupling-pole, adjustable connecting-rods, sand-board mounted upon rollers which work in ways, a ratchet and pawl, with means for operating it to hold the brake positively disengaged from the wheel. It of course contemplates the usual means for moving the sand-board forward and applying brakes.

The accompanying drawings illustrate our invention.

Figure 1 is a side elevation of a wagon with our brake applied, the wheels nearest the eye being removed. Fig. 2 is a plan view of our wagon with our brake applied. Fig. 3 is a sectional detail view, on an enlarged scale, of the sand-board, rollers, and ratchet-and-pawl arrangement.

Similar letters of reference indicate corresponding parts wherever they occur.

We will not designate any of the well-known parts of the wagon in which we have made no change in applying our invention.

A A are the rear hounds, joined at front by upper and lower plates, *a a*, which are slotted at *a'*, as shown. The coupling-pole B passes in a box formed by the ends of the hounds and these two plates, and is joined thereto by a pin passed through the slots in the boxes and the coupling-pole. The brake-rod C is sustained in a box, *c'*, which is adjustable on the coupling-pole. A semicircular brace, $c^2$, engages at its ends with the brake-rod, and is fitted with a box, $c^3$, which passes over the coupling-pole B. An arm, D, rigidly secured to the brake-rod at one end, extends upward, and has pivoted to it the rear end of the extensible connecting-rod E, which, as shown, is formed of two pieces, which engage each other in such a manner as to be adjustable for the purpose of shortening or lengthening the said connecting-rods to make them agree with the length of the coupling. The rods E are connected with the front end to the sand-board F, which slides on the top-plate of the box G, and is provided with rollers H, which rest upon the lower plate of said box and permit the easy movement thereof.

It is evident that as the rollers and sand-board are moved forward automatically when going down hill the brake will be applied; but, if desired, the usual lever may be employed for effecting this movement. Our invention, however, embraces the further attachment of a means for throwing the sand-board backward and positively disengaging the brake from the wheel. To accomplish this we provide a ratchet, I, upon the under face of the sand-board, and provide a pawl, J, which engages with the ratchet. Connected with the pawl is a lever, K, for throwing the pawl into engagement with the ratchet, and forcing said ratchet, sand-board, and connections backward to positively release the brake, which often becomes necessary in case it should be desired to back the wagon up hill, or when it runs into a chuck-hole or break in the road.

It will be understood that the front end of the body is intended to rest upon the sand-board F, and give it sufficient weight to cause the proper application of the brake when going down hill.

Having thus described our invention, what we claim is—

1. In an automatic brake, the combination, with the movable sand-board, connecting-rods, and brake-rod, of the coupling-pole B, the hounds A A, having the plates or boxes *a a* and the slots *a'*, and a pin for engaging the coupling-pole and slots.

2. In an automatic brake, the combination, with the coupling-pole and rear hounds, having the slotted box *a a*, of the brake-rod C, having a box, *c'*, on the coupling-pole, a semicircular brace, $c^2$, connected at its ends to the brake-rod and extending forward beyond the box *a*, and provided with a box, $c^3$, through which the coupling-pole passes, the forward sand-

board F, and connections thereto from the brake-rod, as shown and described.

3. The combination, with the brake-rod C, extensible connecting-rods E, sand-board F, having grooves in its ends, boxes or shoes G, on the upper plate of which the board F moves by means of the groove, and rollers H H, working in boxes G, as and for the purpose set forth.

FRANCIS MARION SWANN.
WILLIAM WEST ADKINS.

Witnesses:
W. M. WORKMAN,
THOMAS THORNBURG.