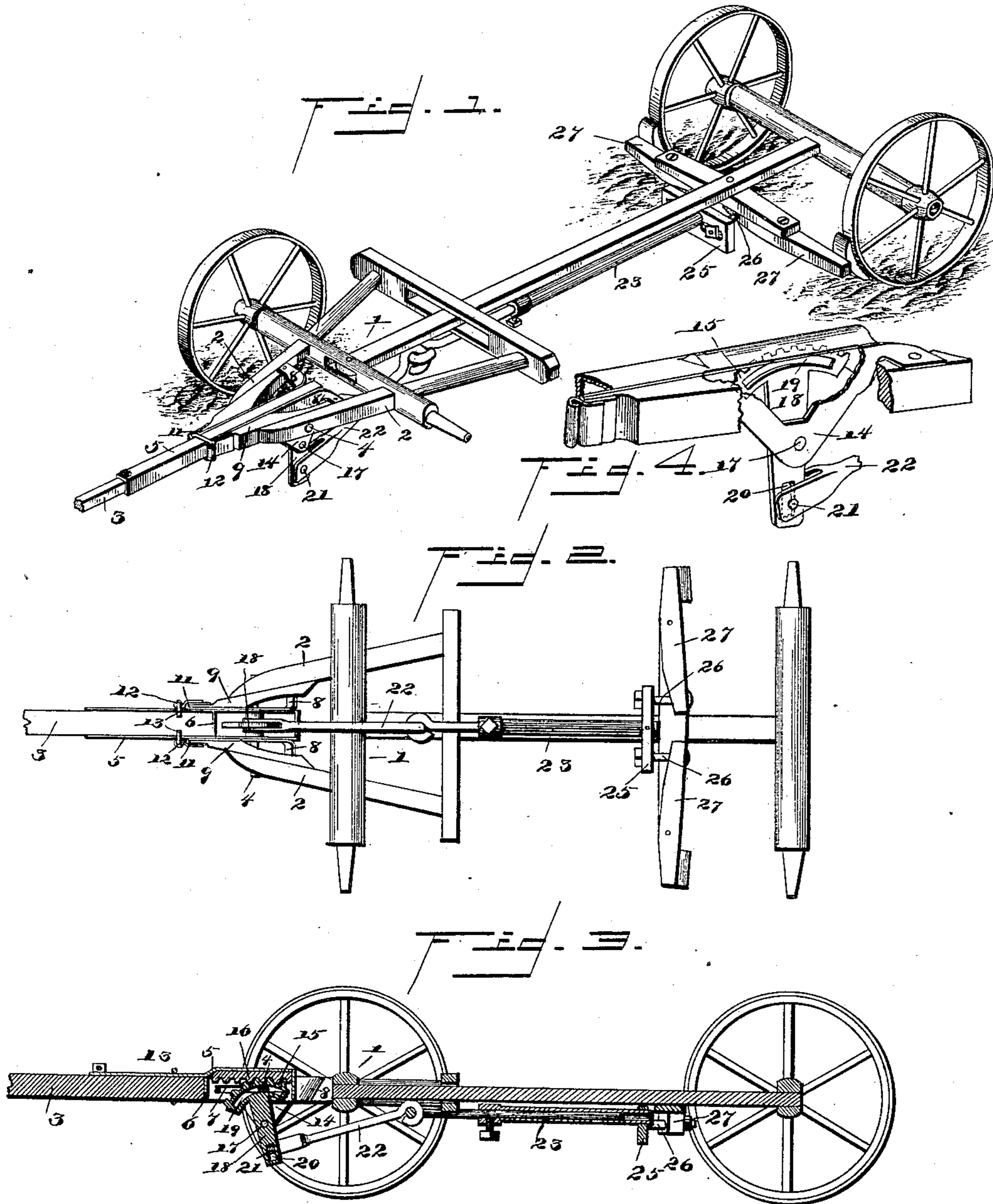


(No Model.)

A. A. ROSS & E. S. CHATFIELD.  
WAGON BRAKE.

No. 429,062.

Patented May 27, 1890.



Witnesses

*Samuel Ker.*

*J. F. Riley*

Inventors

*Archibald A. Ross and  
Eben S. Chatfield.*

By their Attorneys

*C. A. Snow & Co.*

# UNITED STATES PATENT OFFICE.

ARCHIBALD A. ROSS, OF HARRISON VALLEY, PENNSYLVANIA, AND EBEN S. CHATFIELD, OF ADDISON, NEW YORK.

## WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 429,062, dated May 27, 1890.

Application filed March 31, 1890. Serial No. 346,061. (No model.)

### *To all whom it may concern:*

Be it known that we, ARCHIBALD A. ROSS, of Harrison Valley, Potter county, Pennsylvania, and EBEN S. CHATFIELD, of Addison, in the county of Steuben and State of New York, citizens of the United States, have invented a new and useful Automatic Brake, of which the following is a specification.

The invention relates to improvements in automatic wagon-brakes.

The object of the present invention is to improve the construction set forth in Letters Patent No. 414,271, granted us November 5, 1889, and arrange the operating mechanism below the tongue.

The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

In the drawings, Figure 1 is a perspective view of the improved brake applied to a running-gear. Fig. 2 is a reverse plan view. Fig. 3 is a longitudinal sectional view partly in elevation. Fig. 4 is a perspective detail view.

Referring to the accompanying drawings, 1 designates a running-gear, which may be of any desired construction and which is provided at its front end with the usual hounds 2, and a tongue 3 has its rear end secured within a casting—that is, secured between the front ends of the hounds—by means of a transverse pin 4. The casting 5 is rectangular in cross-section, and has its front end and bottom open, and it receives the rear end of the tongue 3 and conforms to the configuration of the latter, and is provided with a transverse plate 6, against which rests the rear end of the tongue, and the said casting 5 is provided with a longitudinal slot 7, to receive the transverse pin 4, and it is capable of a limited longitudinal movement. The casting is prevented moving laterally during its longitudinal movements by guide-irons 8, that are secured to blocks 9, that are arranged between the front ends of the hounds and pivoted thereto by the transverse pin 4. The rear ends 10 of the guide-irons are twisted and arranged horizontally, and secured to the upper faces of the blocks 9, and the front ends 11

are bent upon themselves and form recesses to receive the front ends of the blocks, which are arranged and secured in said recesses, and the ends 11 are provided with vertical eyes or loops 12, through which pass securing-bolts 13, that are adapted to fasten a clip-plate similar to that shown in the above-entitled patent, and the said plate is designed to be engaged by a latch-bar to prevent the operation of the brake mechanism when it is desired to back the vehicle. The guide-irons are provided intermediate of their ends with hangers 14, between which is pivoted a segmental lever. The upper curved edge 15 is arranged in the rear end of the casting 5, and is adapted to be engaged by a rack-bar 16, secured in the upper wall or top of the casting and to be moved on its pivot 17 when the tongue and casting are moved longitudinally. The upper portion of the segmental lever 18 is provided with a curved slot 19, through which passes the transverse pin, and the slot enables the lever 18 to move freely. The lower end of the segmental lever is provided with a vertical slot 20, in which works a pin 21, that secures the front end of a pitman 22 to the lever. The rear end of the pitman is connected to a reciprocating rod 23, which is composed of two members, a rod and a pipe or tube that are secured together by a set-screw, and are adapted to be adjusted longitudinally and secured at any desired point to suit the distance between the wheels. The rear end of the rod 23 is provided with a transverse bar 25, the ends of which are connected by rods 26 to the inner adjacent ends of brake-levers 27, and when the vehicle is on downgrade the tongue will move rearwardly and carry with it the upper end of the segmental lever, which will throw the lower slotted end of the lever forward and draw upon the rod 23, which will apply the brake-shoes, as will readily be understood.

From the foregoing description and the accompanying drawings, the construction, operation, and advantages of the invention will be readily understood.

Having thus described our invention, what we claim is—

1. The combination, with the hounds, of the

guide-irons provided with depending hangers, the transverse pin pivoting the guide-irons to the hounds, the segmental lever provided in its upper end with a curved slot and having  
5 its lower end connected with the brake-levers, and the casting adapted to receive the tongue and capable of limited longitudinal movement and provided with a longitudinal slot to receive the transverse pin, and having  
10 within it a rack-bar arranged to engage the segmental lever, substantially as described.

2. The combination of the hounds, the guide-irons provided with hangers depending below the hounds, the transverse pin, a seg-  
15 mental lever pivoted in the hangers and provided with a curved slot adapted to receive the pin and having its curved edge provided with teeth, the adjustable rod 23, provided at its rear end with a transverse bar and hav-  
20 ing its front end connected with the lower end of a segmental lever, the brake-levers, the rods 26, connecting the inner adjacent ends of the brake-levers with the ends of the transverse bar, and the longitudinal slotted  
25 casting arranged between the guide-iron and provided in its upper wall with a rack-bar en-

gaging the segmental lever, substantially as described.

3. The combination of the hounds, the blocks, the transverse pin pivoting the blocks 30 to the hound, the guide-irons having their rear end twisted and secured to the upper faces of the blocks, and having their front ends bent upon themselves to provide recesses for reception of the front ends of the blocks, 35 said guide-irons being provided with depending hangers extending below the hounds, the segmental lever pivoted in the hanger and provided with a curved slot to receive the transverse pin and having its lower end con- 40 nected with the brake-levers, and the longitudinally-movable casting provided with the rack-bar engaging the segmental lever, substantially as described.

In testimony that we claim the foregoing as 45 our own we have hereto affixed our signatures in presence of two witnesses.

ARCHIBALD A. ROSS.  
EBEN S. CHATFIELD.

Witnesses:

D. M. DARRIN,  
MARY COLLINS.