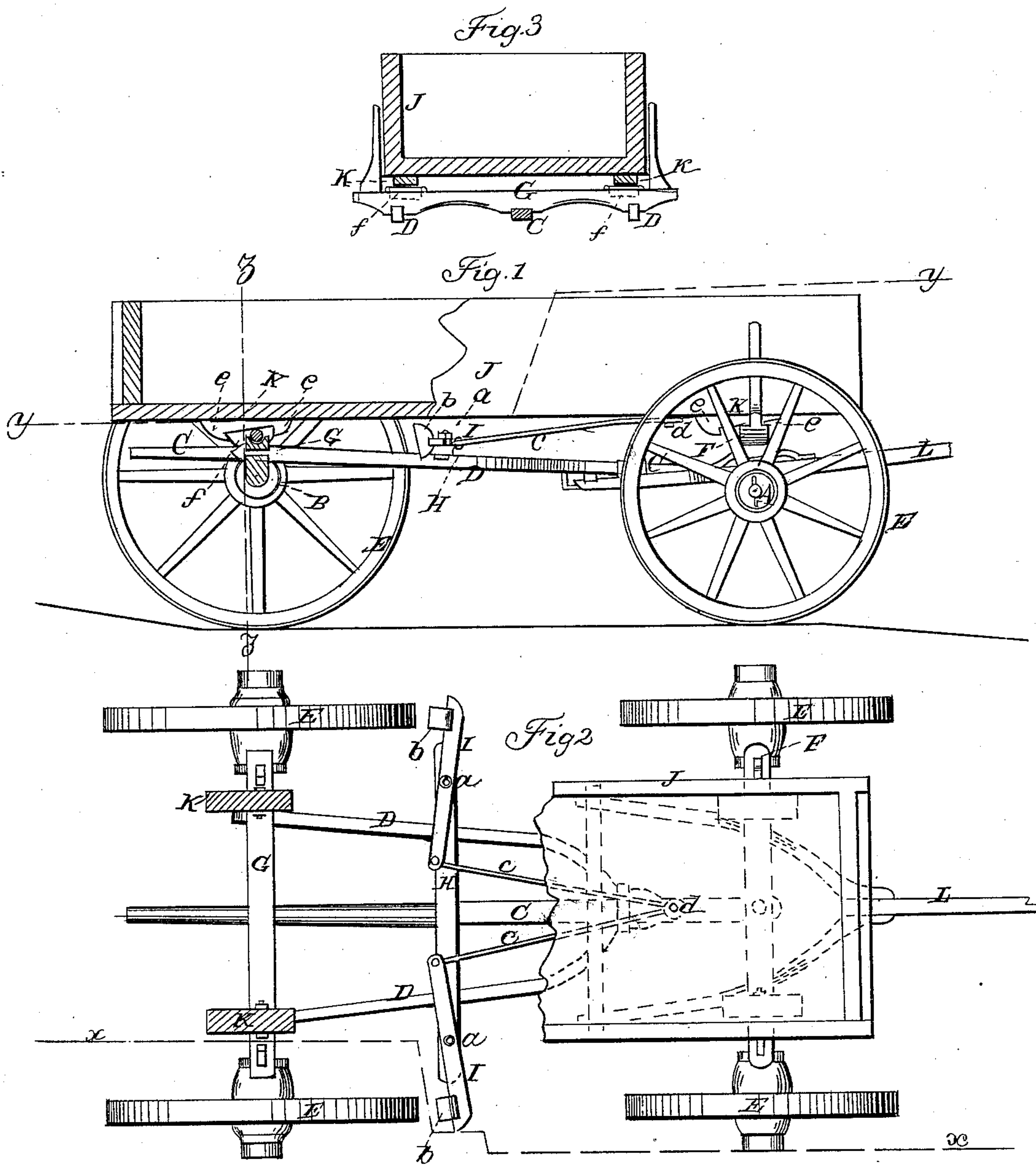


C. A. SLACK.

Wagon-Brake.

No. 34,218.

Patented Jan. 21, 1862.



Witnesses  
J. H. Slater  
Arthur W. Lundy

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# UNITED STATES PATENT OFFICE.

CHARLES A. SLACK, OF FRENCHTOWN, NEW JERSEY.

## IMPROVEMENT IN WAGON AND CARRIAGE BRAKES.

Specification forming part of Letters Patent No. 34,218, dated January 21, 1862.

*To all whom it may concern:*

Be it known that I, CHARLES A. SLACK, of Frenchtown, in the county of Hunterdon and State of New Jersey, have invented a new and Improved Self-Acting Brake for Wheel Vehicles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of a wagon with my invention applied to it; Fig. 2, a plan sectional view of the same, taken in the line *y y*, Fig. 1; Fig. 3, a transverse vertical section of the same, taken in the line *z z*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents the front and B the back axle of a vehicle; C, the reach which connects the two axles; D D, braces attached to the reach and back axle B.

E are the wheels; F, the front and G the back bolster.

The above parts may be of usual construction, and constitute the running-gear of a wagon.

H is a bar which is secured transversely on the reach C. Near each end of this bar H a lever I is secured. The fulcrum-pins *a* of these levers are about at their centers. To the outer parts of the levers I shoes or brake-blocks *b* are attached, one to each, and to the inner ends of the levers I rods *c c* are attached, one to each, the outer or front ends of which are secured to the bottom of the body J of the wagon, as shown at *d*.

The body J of the wagon is placed loosely on the bolsters F G. The under side of the body J has blocks K attached to it, the bottoms of which are inclined, the lower ends of the blocks being at their back parts, so that they will incline upward from their back to their front ends, as shown clearly in Fig. 1. Each block has a shoulder *e* at each end of it, and these shoulders determine the length of movement of the body on the rollers, preventing the former from slipping off the lat-

ter. The inclined surfaces of the blocks K may rest on friction-rollers *f*, filled in the bolsters. There are four blocks K attached to the under side of the body at such points that a block will bear near each end of each bolster.

To the front axle A of the vehicle the thills or draft-pole L is attached.

The operation is as follows: When the vehicle is drawn along on level ground, the gravity of the body J will in consequence of the inclined surfaces of the blocks cause the front shoulders *e* of each block K to bear against the bolsters F G. When, however, the vehicle is descending eminences, the inclined position of the body J will cause it to move forward, and as the rods *c c* of the levers I I are attached to the body J the forward movement of the body J will cause the shoes or brake-blocks *b* to press against the peripheries of the back wheels E E. When the vehicle reaches level ground, the body assumes its original position in consequence of the inclined lever surfaces of the blocks K, as before stated.

In case the invention is applied to a spring-vehicle a frame is placed on the bolsters, said frame being provided with inclined blocks, and the body placed on the frame. Thus it will be seen that a very simple and efficient self-acting brake is obtained, one involving but a trifling expense in its application and not liable to get out of repair.

The invention also admits of the backing of the vehicle without operating the brakes, the gravity of the body being sufficient to keep it in proper position on the bolsters when the vehicle is in a horizontal position.

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

The employment, in combination with the body J and bolsters F G, of the inclined blocks K, substantially as and for the purpose herein shown and described.

CHARLES A. SLACK.

Witnesses:

G. H. SLATER,  
ARTHUR W. LUNDY.