

(No Model.)

E. HUBBELL.

WAGON BRAKE.

No. 343,537.

Patented June 8, 1886.

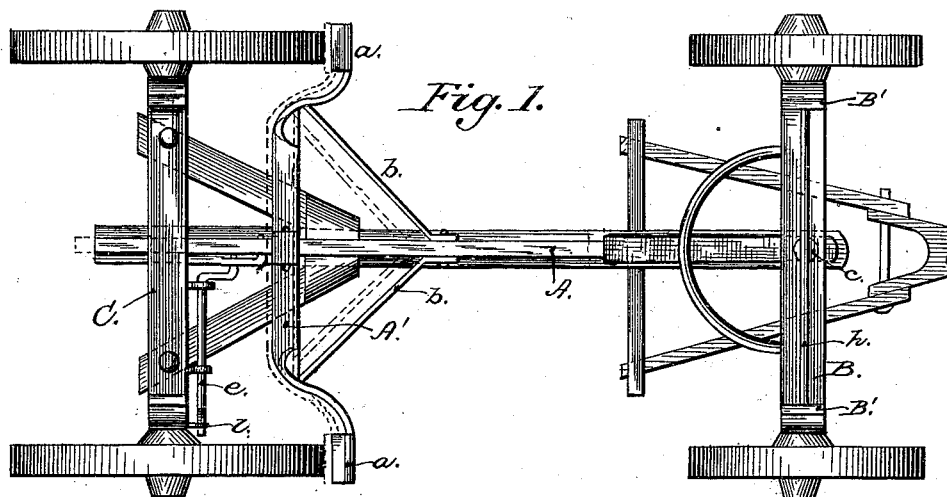


Fig. 2.

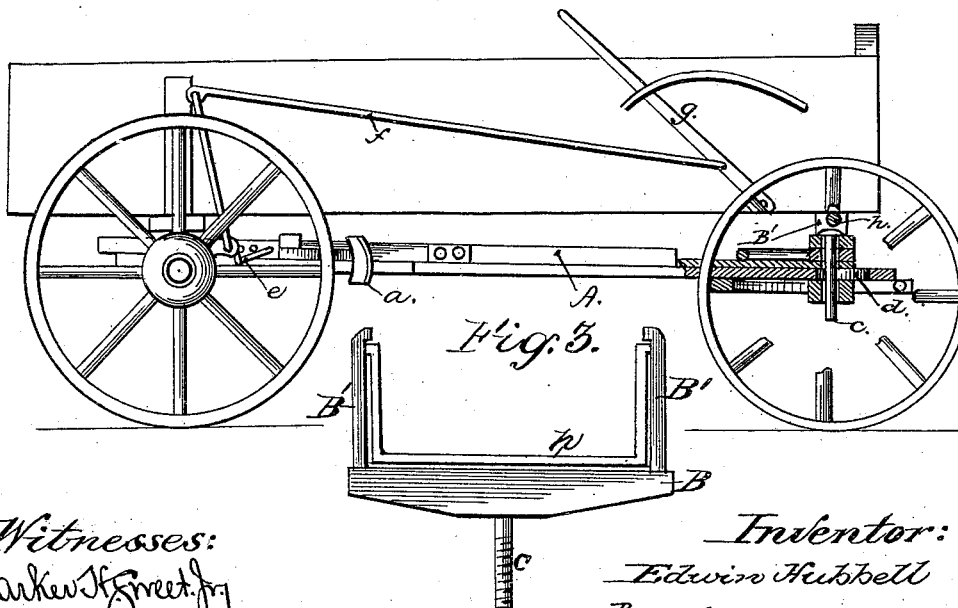


Fig. 5.

Witnesses:
Sarkis H. Greenberg
D. Fred. Keller

Inventor:
Edwin Hubbell
By L. Bingham
Att'y.

UNITED STATES PATENT OFFICE.

EDWIN HUBBELL, OF FALLS CITY, NEBRASKA, ASSIGNOR OF ONE-HALF TO
EDWIN N. MELTON, OF SAME PLACE.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 343,537, dated June 8, 1886.

Application filed February 26, 1886. Serial No. 193,328. (No model.)

To all whom it may concern:

Be it known that I, EDWIN HUBBELL, of Falls City, in the county of Richardson and State of Nebraska, have invented certain new and useful Improvements in Wagon-Brakes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which 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.

My invention has for its object to provide an improved, novel, and simplified brake for vehicles, one that will be automatic in its action, durable in construction, and efficient in operation; and it consists, essentially, of a frame arranged upon the top of the vehicle running-gear, and provided with projecting arms carrying the brake-shoes, the front end of said frame being connected to the king-bolt of the vehicle, while the rear end works loosely through a slot in the rear bolster.

It further consists in the details of construction and general arrangement of parts, all as will be hereinafter fully described, and pointed out in the claims.

In the accompanying drawings, Figure 1 represents a top plan view of my invention as applied to the running-gear of a vehicle; and Fig. 2, a side elevation, in partial section, thereof. Fig. 3 is a detail view showing swinging cradle.

Similar letters of reference indicate like parts in all the figures.

Referring to the drawings, the frame of my improved construction is composed of a long bar or rod, A, having a central or intermediate cross-bar, A', the outer ends of which are preferably curved and provided with brake-shoes *a*, as shown. Auxiliary braces *b* are secured to the cross-arm A' and main bar or rod A—one on each side—to hold the parts firmly together. The frame thus formed is adapted to rest upon the top of the vehicle-reach, and parallel thereto, the front end of the bar or rod A being provided with a suitable opening for the passage of the king-bolt *c* of the front bolster, B, while the rear end of said bar

or rod A works loosely through a slot in the lower part of the rear bolster, C.

The front end of the vehicle-reach is provided with an elongated slot, *d*, through which the king-bolt passes, to allow of a forward and backward movement of said reach, according to the length of said slot.

Pivoted in suitable bearings upon the inner side of the rear bolster, C, is a crank-shaft, *e*, one end of which projects into an opening in the bar or rod A, while the outer or opposite end is bent up to engage with the rear end of the connecting-rod *f*, the front end of which is pivoted to a suitable hand-lever, *g*, upon the side of the body of the vehicle, as shown in Fig. 2.

Between the uprights B' of the front bolster, B, is provided a swinging cradle or frame, *h*, for the reception therein of the front end of the body of the vehicle, which is provided upon the bottom with pins or strips to lap over said cradle or frame to hold the body securely thereon, and at the same time to allow a vibratory movement of said body backward and forward.

In the operation of my invention it will be observed that the sudden checking of the draft-animals causes the hind wheels of the vehicle to run up upon the brake-shoes *a*, thereby checking the vehicle, and the steeper the declivity which the vehicle descends the greater will be the checking force. As soon as the draft-animals straighten the tugs to their full length, the brake is drawn off.

The hand-lever *g* serves to assist in the operation of putting on or taking off the braking force, although the same is not essential to the successful operation of my invention, which is automatic in its action, and controlled principally by the movements of the draft-animals.

Upon one of the standards of the rear bolster, C, is pivoted a hook, *l*, which is intended to engage with the upper bent end of the crank-shaft *e*, to allow of the vehicle being backed when the body or box is not in position thereon. The same effect may be secured by depressing the hand-lever *g* backward when the vehicle-body is in position upon the bolsters.

I am aware of the Patent No. 162,337, April 100

20, 1875, and I do not therefore claim the various parts thereof; but

What I claim is—

1. A wagon-brake consisting of a central
5 rod, A, secured to a curved cross-bar, A', having brake-blocks *a*, and inclined braces *b*, said rod being loosely secured to a reach having an elongated slot, *d*, in its front end surrounding king-bolt *c*, in combination with the crank-
10 shaft *e*, secured to rear axle, C, the connecting-rod *f*, and pivoted body-lever *g*, substantially as shown.

2. A wagon-brake formed as shown and described, in combination with the body, the bolster-uprights B', and the swinging cradle or frame *h*, substantially as shown and described. 15

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

EDWIN HUBBELL.

Witnesses:

J. B. COUPE,
CHAS. LOREE.