

Wagon-Brake.

Patented Feb. 7, 1860.

Fig. 1.

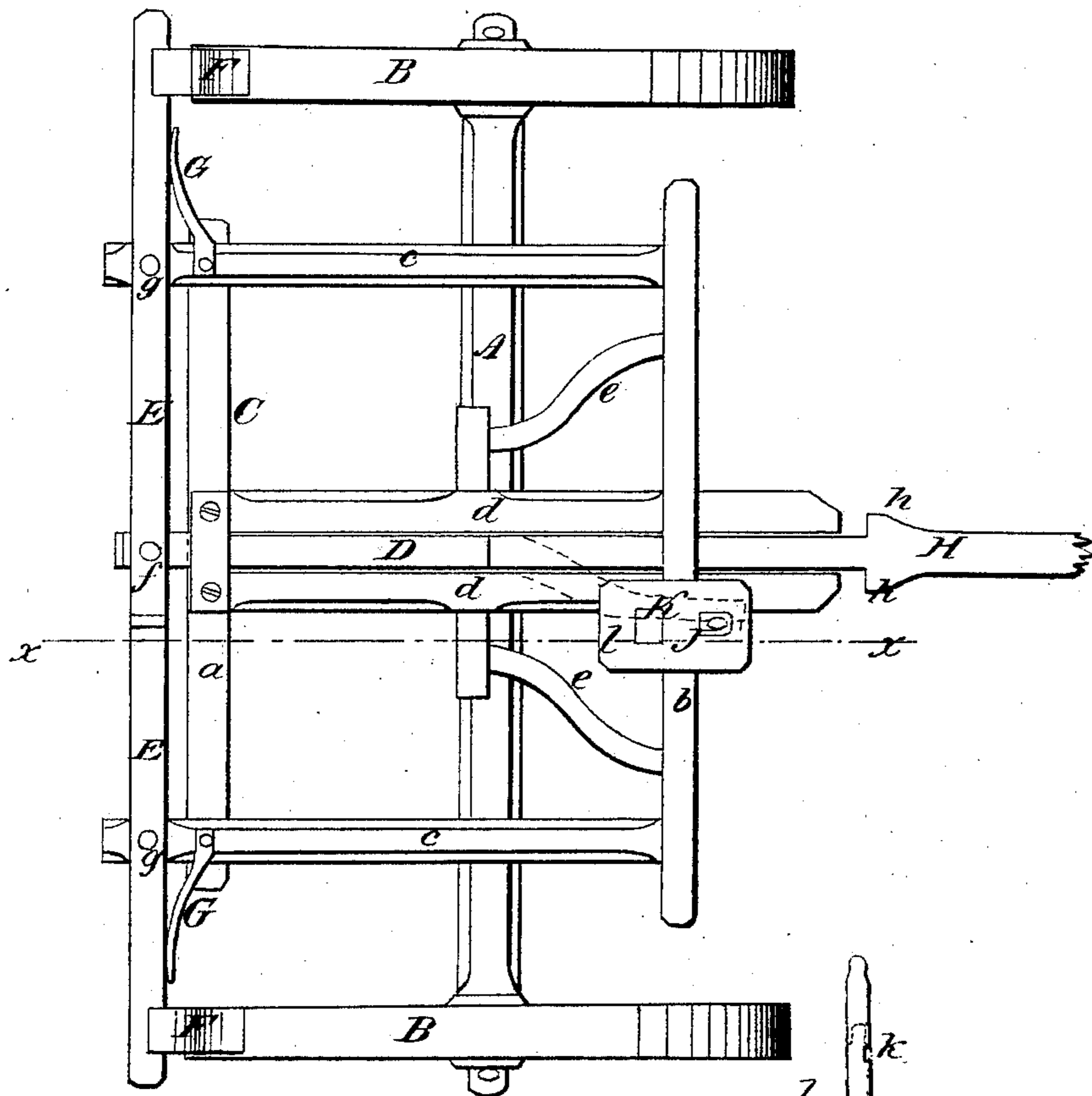
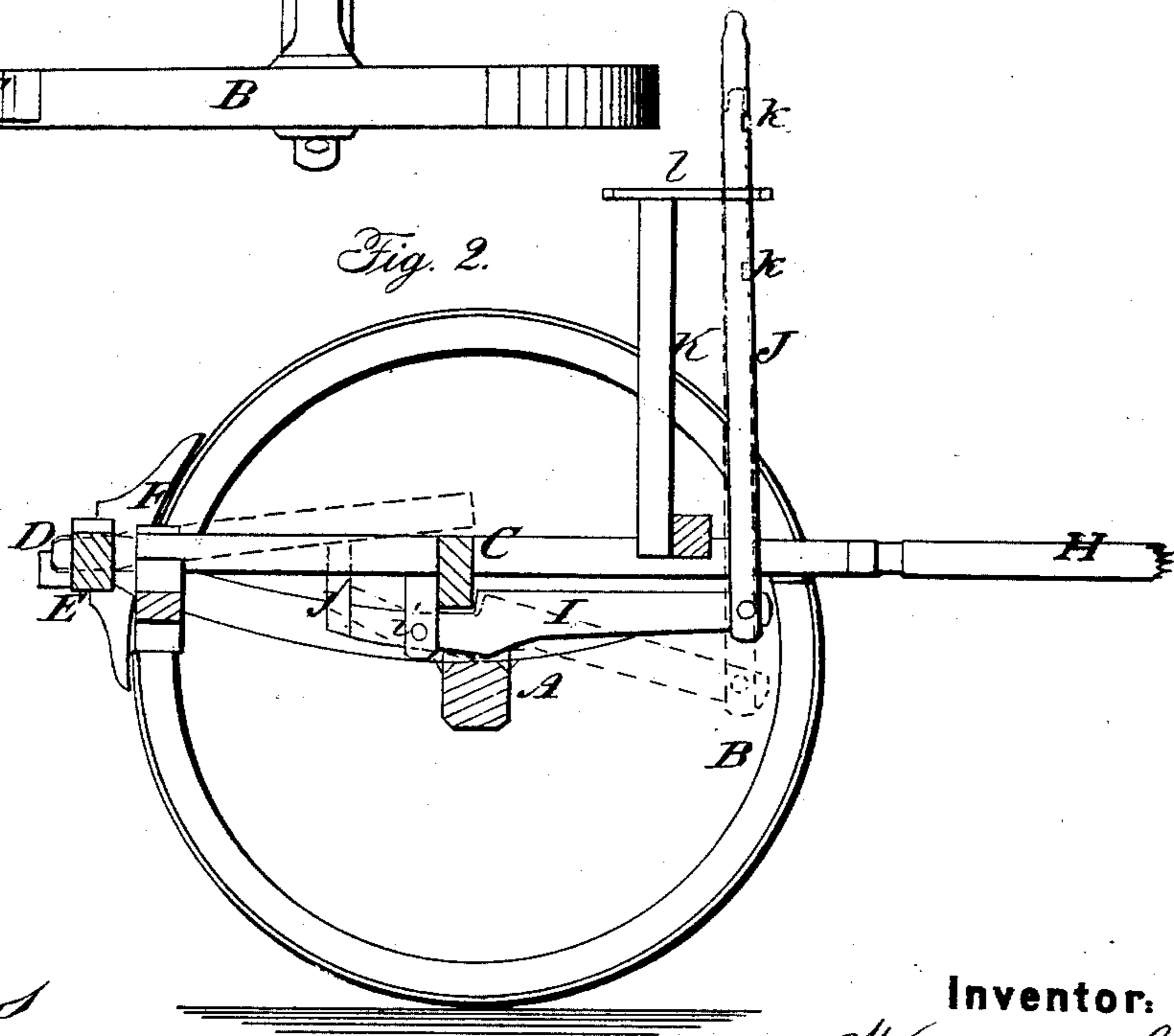


Fig. 2.



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DISENGAGEMENT OF SELF-ACTING BRAKES.

Specification of Letters Patent No. 27,045, dated February 7, 1860.

To all whom it may concern:

Be it known that I, W. A. GIBSON, of the city, county, and State of New York, 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 plan or top view of my invention. Fig. 2, a side sectional view of ditto, taken in the line *x, x*, Fig. 1.

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

This invention relates to an improvement in that class of brakes for wheel vehicles, in which the brake is actuated through the medium of the draft pole without any direct or special manipulation on the part of the driver and are consequently termed self-acting. This class of brakes, although very convenient and desirable in many respects, possess the disadvantage of precluding the bucking of the vehicle to which they are applied, unless some stop or appliance be used to break or dissolve the connection between the brake and the draft pole. The object of this invention is to furnish such a means, one that may be actuated by the driver with the greatest facility and without rendering the brake at all complex, and forming as a whole a more simple and desirable self-acting brake than any others that have passed under my observation.

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

A, represents the front axle of a vehicle, B, B, the wheels thereon.

C, is a rectangular frame which is secured to the axle A. This frame is formed of two bars *a, b*, one in front and the other back of the axle and both parallel with it. These bars *a, b*, are connected by parallel bars *c, c*, which cross the axle at right angles and are permanently secured to it. In the frame C, two parallel bars *d, d*, are secured at its center and parallel with the side bars *c, c*, the bars *d, d*, being braced by bars *e, e*.

Between the two bars *d, d*, a slide bar D, is placed and allowed to slide or work freely. The back end of this bar is connected by a pin *f*, to the inner ends of two levers E, E, which have their fulcra at the back ends of the bars *c, c*, as shown at *g*. The pin *f*, con-

nects the inner ends of the levers E, E, forming a joint. To the outer part of each lever E, E, a shoe F, is attached, said shoes being in line with the wheels B, B. Against the outer part of each lever E, a spring G, bears. These springs are attached to the back parts of the bars *c, c*, and have a tendency to keep the shoes F, forced out from the wheels.

Between the front parts of the bars *d, d*, the inner part of the draft pole H, is fitted. The part of the draft pole is fitted between the bars *d*, is a tenon which bears a shoulder *h*, at each side to serve as a bearing for the draft pole in backing the vehicle, said shoulders coming in contact with the front ends of the bars *d, d*.

At the under side of the frame C, there is a lever I, having its fulcrum at *i*. The back part of this lever I, projects underneath the slide bar D, and has a vertical projection *j*, attached. The front end of this lever is connected to an upright bar J, which has notches *k*, in its front edge and projects up through a slotted plate *l*, at the upper end of an upright K.

The operation is as follows:—When the vehicle is descending a grade its gravity will cause the front ends of the bars *d, d*, to bear against the shoulder *h, h*, of the tongue H, the latter being restrained or prevented from being shoved forward by the pole straps and the slide bar D, will consequently be pressed against the end of the draft pole and the levers E, E, thereby actuated so as to force the shoes F, against the wheels B, B, retard their movement and serve as an efficient brake. In case also it be necessary to stop the vehicle suddenly on level ground, the driver in reining up his horses stops the movement of the draft pole and the momentum of the vehicle will actuate the levers E, E, the same as in the first instance. The springs G, G, throw the shoes F, F, from the wheels as soon as the draft pole is relieved from the pressure of the pole straps at its front end. In case it be necessary to back the vehicle the driver presses down the bar J, and retains it in one of the upper notches *k*. This downward movement of the bar actuates the lever I, and throws up the front end of the bar D, as shown in red Fig. 2. This position of the bar D, admits of the draft pole H, being moved back until its shoulders *h, h*, are in contact with the

front ends of the bars *d*, *d*, without touching bar D, and consequently the vehicle may be backed and the brake rendered inoperative.

I do not claim the connecting of the brake
5 of a vehicle with its draft pole in such a way that the former will be actuated through the medium of the latter; for that has been previously done; but,

I do claim as new and desire to secure by
10 Letters Patent,

The levers E, E, with the shoes F, F, attached, and connected to the slide bar D, in connection with the lever I, the above parts being applied to the vehicle and arranged in relation with the draft pole H, substan- 15
tially as and for the purpose set forth.

WM. AUG. GIBSON.

Witnesses:

MICH. HUGHES,

M. M. LIVINGSTON.