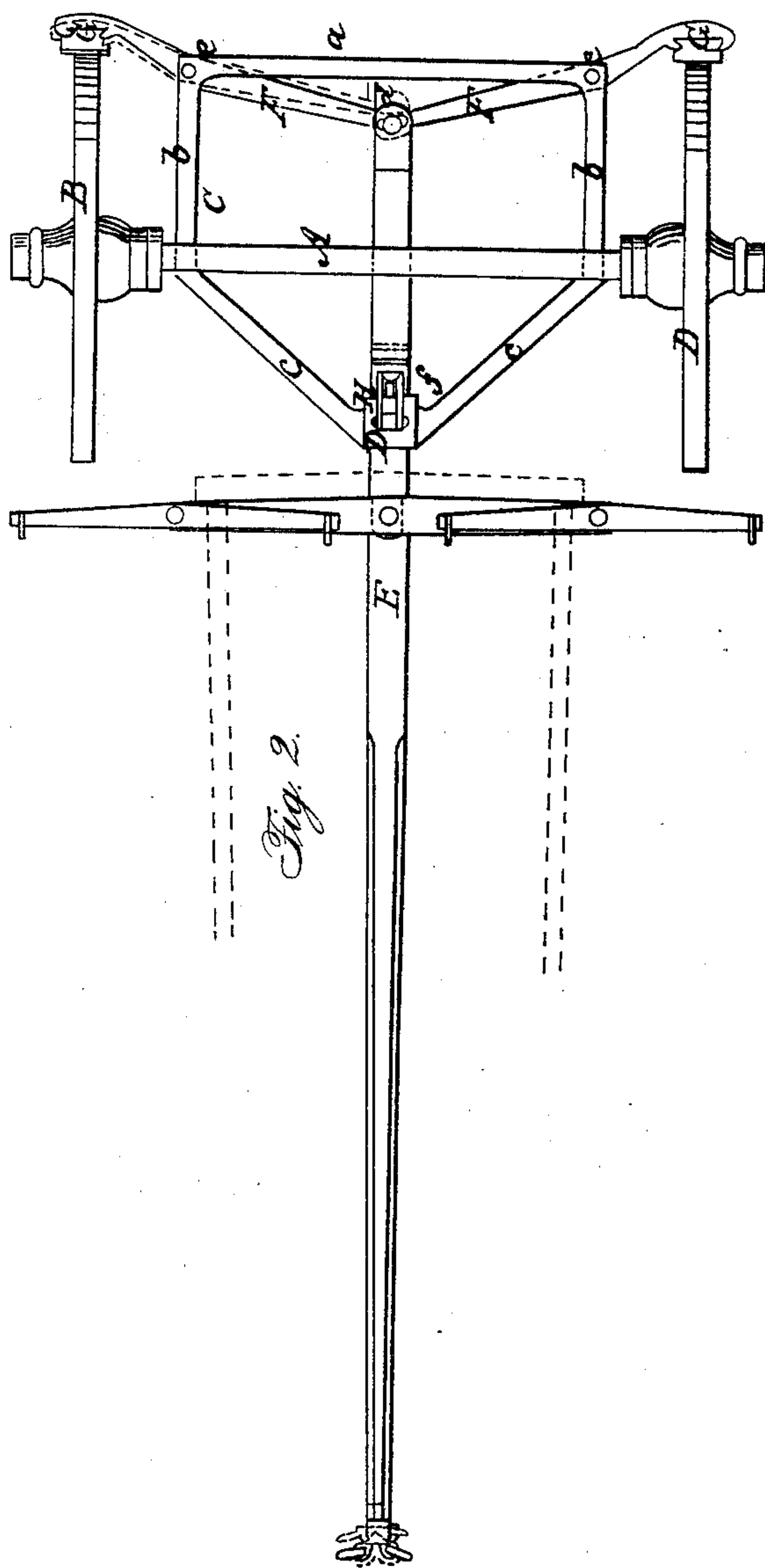
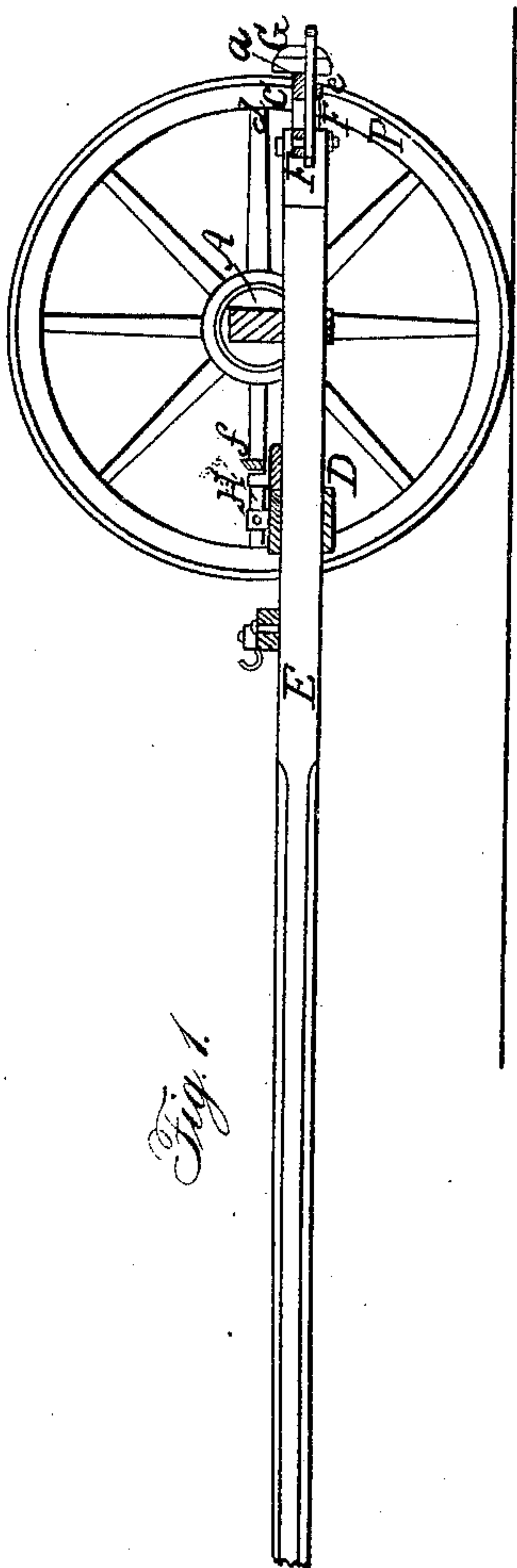


G. L. DICKSON.

Wagon-Brake.

No. 20,412.

Patented June 1, 1858.



UNITED STATES PATENT OFFICE.

GEORGE L. DICKSON, OF CARBONDALE, PENNSYLVANIA.

CARRIAGE-BRAKE.

Specification of Letters Patent No. 20,412, dated June 1, 1858.

To all whom it may concern:

Be it known that I, GEORGE L. DICKSON, of Carbondale, in the county of Luzerne and State of Pennsylvania, have invented a new and Improved Brake for Carriages and other Wheel-Vehicles that are Drawn by Horses; 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 transverse section of the front axle of a wheel vehicle, with my improvement applied to it, a portion of the improvement being also bisected. Fig. 2, is a plan or top view of ditto.

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

This invention consists in having the draft poles and shafts of vehicles so arranged that a certain degree of longitudinal play or movement is allowed them, the back ends of the poles or shafts being attached to levers which have shoes at their ends, the parts being so arranged that the shoes are pressed against the wheels as the speed of the horses is checked or as the horses are "backed" and the brake thereby rendered self-acting.

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, are the wheels.

C, is a metallic frame which is attached to the axle A. This frame is simply a bar of iron so bent or a casting of such a shape as to have a back piece (a) parallel with the axle A, two side pieces, (b) (b) which are at right angles with the back piece (a) and a front formed of two oblique portions (c), (c), the front ends of which have a collar or box D attached. The side pieces (b) (b) are attached to the axle A.

E, is a draft pole or tongue, the back part of which passes through the collar or box D, and is allowed to slide loosely therein. The back end of the pole E, has the inner ends of two levers F, F, attached to it by a pin (d). The levers F, F, are pivoted one to each end of the back piece (a) of the frame C, as shown at (e) and to the outer end of each lever a shoe G, is attached said shoes being directly back of the wheels B, B.

To the upper surface of the collar or box D, a link H, is attached, and to the upper surface of the pole E, a small vertical projection (f) is attached to the projection being attached to the pole at such a point that when the link H, is fitted over it the shoes G, will be out from the wheels B. When the link H, is fitted over the projection (f) the pole E, is permanently attached to the vehicle or no play of the pole is allowed.

From the above description it will be seen that when the link H, is raised free from the projection and the team or horses "backed" the shoes G, will be pressed against the peripheries of the wheels B, in consequence of the pole E, being forced backward, and it will also be seen that in descending hills if the horses be checked the shoes will press against the peripheries of the wheels B, the tendency of the vehicle to descend in consequence of its gravity in connection with the restriction of the movement of the pole effecting the result. Thus it will be seen that the brake is self-acting, no direct or special appliance of power being required to operate it.

In one horse vehicles a short bar is fitted or passed through the collar or box D, and attached to the levers F, F, said bar having a cross bar attached to its outer end and the shafts attached to the cross bar. This will be clearly understood by referring to Fig. 2, and supposing the pole E to be sawed off just beyond the collar or box D, and to have a cross bar and shafts attached to its outer end, as shown in red.

I would remark that the frame C, may be attached either to the upper or lower surface of the axle A, and that the link H, may be arranged in any proper way and have any suitable attachment connected to it so as to be readily operated by the driver.

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

The arrangement as herein shown and described, of the tongue E, slotted levers F, frame C, box D, and link H, for the purposes set forth.

GEORGE L. DICKSON.

Witnesses:

W. R. BAKER,
M. B. WHITE.