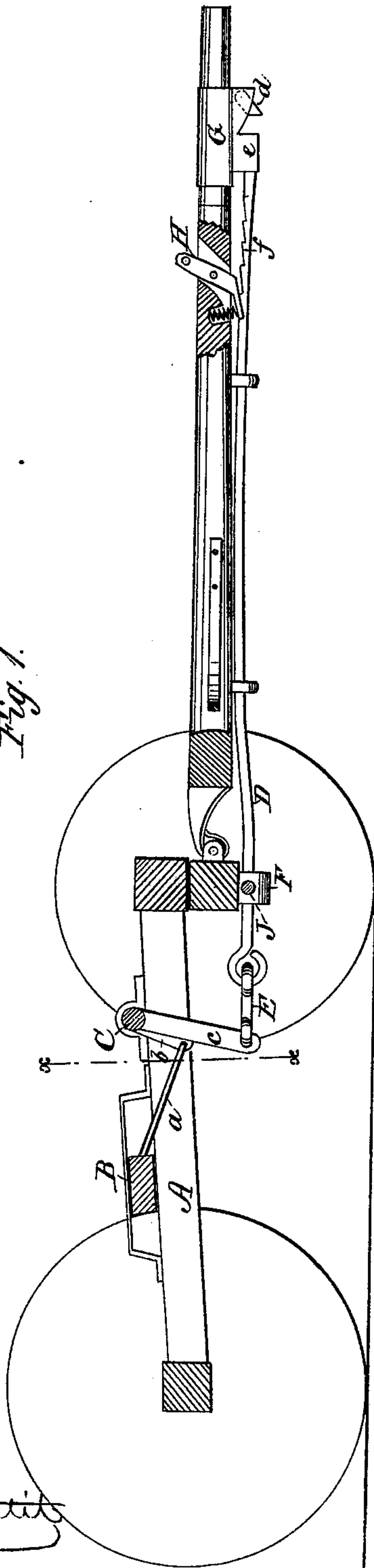


WAGON-BRAKE.

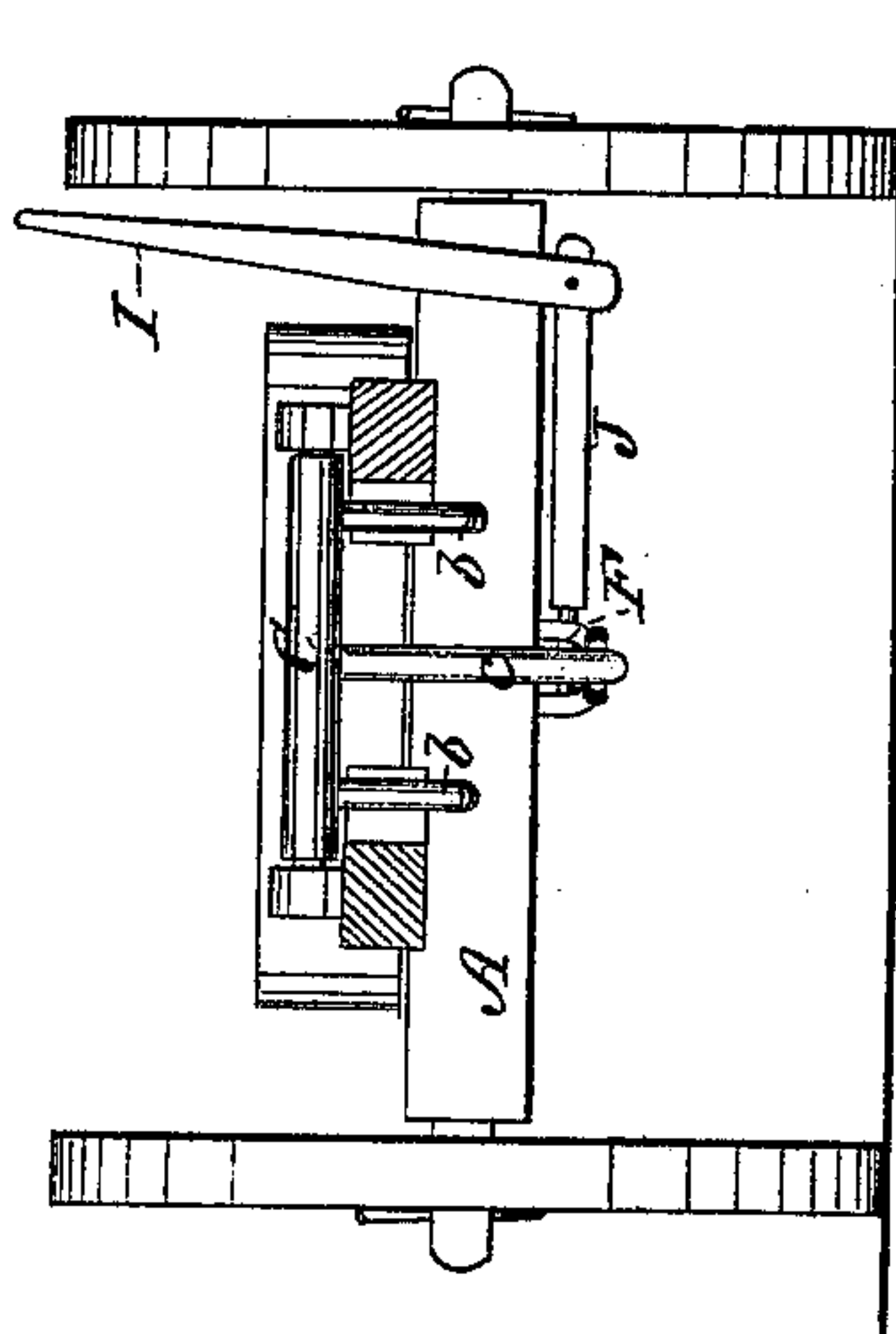
Patented April 18, 1876.

Fig. 1.



Chas. A. Pettit

Fig 2.



BY

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JACOB HAMELBACK, OF HOPEWELL, OHIO.

IMPROVEMENT IN WAGON-BRAKES.

Specification forming part of Letters Patent No. **176,302**, dated April 18, 1876; application filed February 23, 1876.

To all whom it may concern:

Be it known that I, JACOB HAMELBACK, of Hopewell, in the county of Muskingum and State of Ohio, have invented a new and Improved Wagon-Brake; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 is a longitudinal section; Fig. 2, a transverse section through line *x x*.

My invention relates to certain improvements in that class of wagon-brakes in which the backlash of the neck-yoke and the forward movement of the vehicle, when the team is stopped, serve to apply the brakes. The invention consists in the particular construction of devices connecting the brakes with a sliding collar to which the neck-yoke is connected, in the use of a ratchet and pawl arranged to automatically hold the brakes applied, and to automatically release the same upon the starting of the team. It also consists in the peculiar construction of devices for preventing the application of the brakes while backing, as hereinafter more fully described.

In the drawing, A represents a wagon-frame and B a brake-bar located in front of the hind wheels and moving horizontally in keepers on the reach. Said bar is connected, through rods *a*, with arms *b* attached to a rock-shaft, C, which is provided also with another arm, *c*, to which a connecting-rod, D, is attached, through a link, E, said link serving to make a loose connection to facilitate turning. The connecting-rod D passes through a guide-eye, F, beneath the front axle, and extends along beneath the tongue to the end thereof, where it is fastened to a sliding collar or sleeve, G, encompassing the tongue. Said collar is provided with a catch, *d*, against which the draft-strain is exerted, and a lower projection, *e*, against which the neck-yoke ring bears to drive back the rod D and apply the brakes.

H is a detent or pawl pivoted in the tongue and engaging with ratchet-teeth *f* upon the connecting-rod. The object of this device is to hold the brakes on after they are applied until it is desired to start the team to the draft, at which time the pawl is disengaged from the teeth upon the rod by a rod from

the neck-yoke connected with the top part of the said pawl.

I is a hand-lever attached to one side of the wagon within easy reach of the driver. Said lever is attached below to a sliding rod, J, whose end moves in the guide-eye F and engages at right angles with the connecting-rod D to bind or lock the same in rigid position, so as not to apply the brakes while backing.

From the above description it will be seen the application and withdrawal of the brakes is dependent upon the draft attachment, so that when the neck-yoke ring bears back against the advancing load it drives back the sliding collar and rod, rocks the shaft C, and applies the brake-bar to the wheels through the rods *a* and arms *b*, the brakes being held to the same by the pawl H, which engages with the teeth upon the rod until the forward draft is again applied. In backing the load the driver deflects his lever I, and by locking the rod D in the guide-eye F prevents the backward strain upon the collar from applying the brakes. This construction of brake is especially adapted to vehicles which travel over hilly country, being perfectly automatic in its operation.

I am aware of the fact that the idea of applying the brakes through the neck-yoke is not broadly new, and I therefore confine my invention to my particular construction.

Having thus described my invention, what I claim as new is—

1. The combination of the brake-bar B, rods *a*, rock-shaft C, having arms *b c*, the link E, connecting-rod D, and the collar G, having projection *e* and pivoted catch *d*, as and for the purpose described.

2. The combination, with the rod D, having teeth *f*, of the detent H, pivoted in the tongue and projecting above the same, whereby it is adapted to be automatically disengaged by a connection with the neck-yoke, substantially as described.

3. The combination, with the rod D and the guide-eye F, of the sliding-rod J and the lever I, as and for the purpose described.

JACOB HAMELBACK.

Witnesses:

SAMUEL BOWMAN,
DAVID EHMANN.