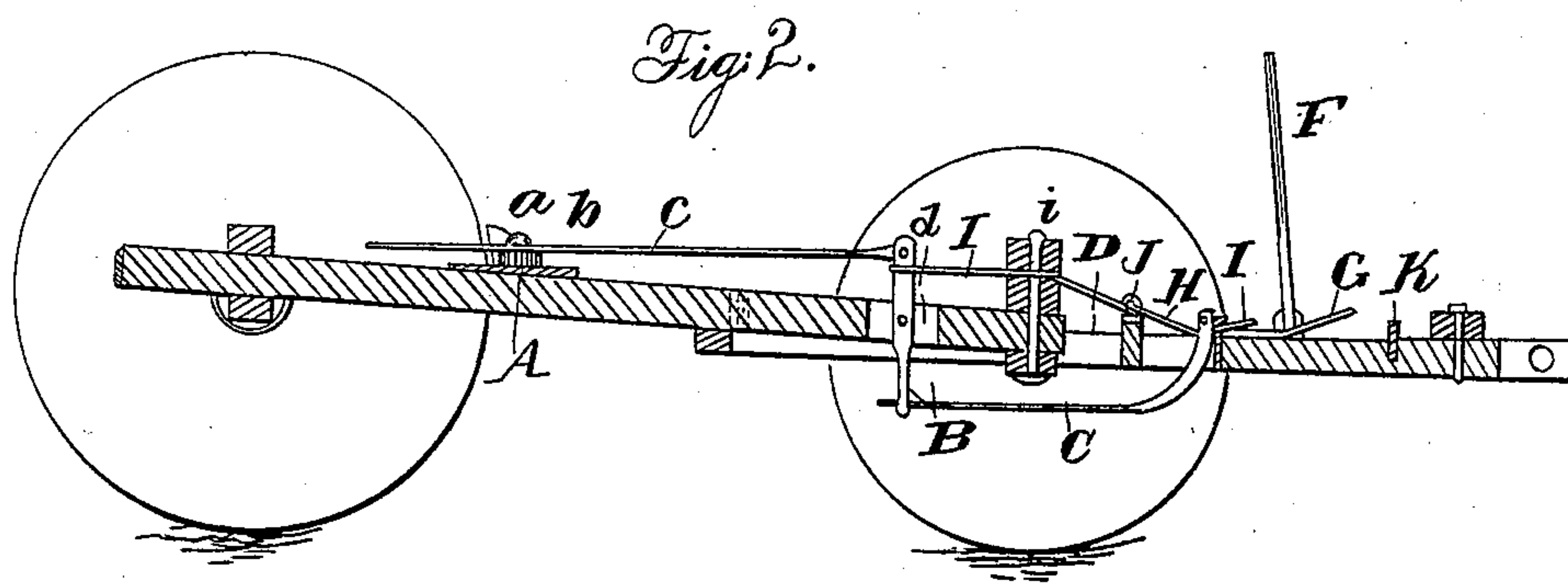
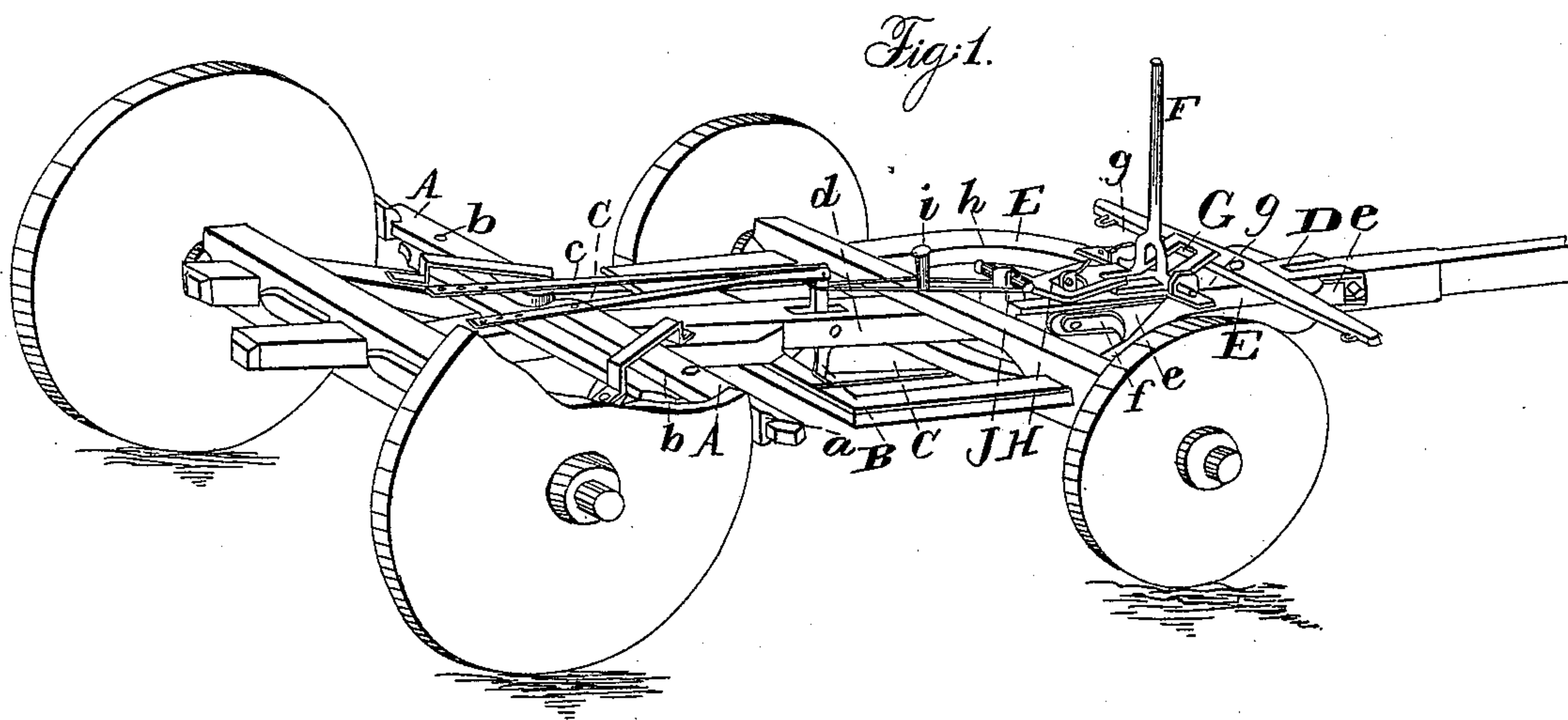


W. MAY.
Carriage-Brake.

No 28,636.

Patented June 5, 1860.



Witnesses

Wm. M. Mask
E. S. Lawrence

Inventor

William May

UNITED STATES PATENT OFFICE.

WM. MAY, OF WINCHESTER, OHIO, ASSIGNOR TO HIMSELF, J. DE BRUIN, E. A. RAMSAY,
AND W. W. RAMSAY, OF SAME PLACE.

SELF-ACTING WAGON-BRAKE.

Specification of Letters Patent No. 28,636, dated June 5, 1860.

To all whom it may concern:

Be it known that I, WILLIAM MAY, of Winchester, in the county of Adams and State of Ohio, have invented a new and useful Improvement in Wagon-Brakes; and I do hereby declare that the following is a full and complete description of the same, reference being had to the accompanying drawings and letters of reference marked thereon, making part of this specification.

My improvement comprehends an arrangement by which the driver is enabled to put them in operation by the draft of the team; thus affording a security against runaways and accidents.

To enable others of competent skill to make and use my invention I proceed to describe its construction and mode of operation.

Figure 1 of the annexed drawings is a perspective view of the running parts of a wagon with my brake attached. Fig. 2 is a sectional elevation of the same.

Like letters of reference indicate corresponding parts in the two drawings. Fig. 1 represents the wagon with the rocker removed.

A A represent the vibrating arms which carry the brake shoes, *a*, *a*. The arms traverse around points *b b* and are acted upon by rods *c c*. These connect with lever B having fulcrum *d*. The lower arm of this lever is acted upon by bar *e* and this extending forward under the forward axle is bent upwardly and passes through a slotted opening of considerable length in the sliding tongue piece D, and in contact as shown in Fig. 2 with a sheathing plate inserted in the forward end of the above named slotted opening.

It will now be observed that if the vehicle were in motion upon an inclination downwardly, and that forward motion was resisted by an opposing force exerted upon the tongue, the sliding tongue piece D, which it should be remarked has sufficient latitude fore and aft for all the purposes to be described, will be forced backwardly in its grooves, carrying with it the bar *e*. This acting upon the lever B will cause it to exert a strain upon the rods *c c* and these upon the arms A A bringing the brake shoes *a a* in contact with the wheels of the carriage with

a force proportional to the prime resistance. The sliding tongue piece D is grooved with an adaptation to iron plates *e* secured to the tongue stays or hound pieces E, their after end being supported by the arched stays *f*.

At F is seen an upright bar, forked at the bottom and the parts entering plates which are secured to the two hound pieces so as to permit it to vibrate upon those points. Secured to the bottom of this bar and vibrating with it is the rectangular plate G, the plate being bent upwardly from the middle at the point where it unites with the two parts of the above-named upright bar.

H is a forked plate hinged at *h*; the two parts of this plate enclose the upper end of the bar C and extending beyond, overlap upon the plate G.

I represents a chain which passing around the upper part of lever B extends forward, one part passing on either side of king bolt *i* and takes hold upon standard *j* which is a part of the sliding tongue piece D.

At *k* and *l* are seen in Fig. 2 two short upright standards or stops, the latter being an extension of the piece before referred to as the sheathing in the forward end of slotted opening in piece D. These stops are adapted to the two parts respectively of the horizontal plate G. As shown in the drawings the after stop has a bearing against the after edge of horizontal plate G which sustains the entire forward draft upon the vehicle. Now should the upper end of bar F be pressed forward the after end of horizontal plate G, will be elevated releasing itself from stop *l* and thus permitting the draft of the team to be exerted upon the sliding tongue piece D. The chain I attached to the standard *j* is thus acted upon and communicates the entire forward draft of the team to the upper arm of lever B and thence by rods *c* to brake arms A thus arresting the vehicle, the slotted opening already described accommodating the upright part of bar C.

When it is required to back the vehicle, the bar F is pressed forward until the forward edge of horizontal plate G intercepts the stop *k* when the backward force is exerted through it upon the tongue stays or hounds. The function of the forked plate H is to fall behind the upright part of bar

C preventing it from working back in the slot during the ordinary forward progress of the vehicle, by which the brake shoes would have an intermittent contact with the wheels. It might under some circumstances be dispensed with or its place could be supplied with a light spring.

It will be seen that my improvement accomplishes effectually what has been an obstacle with self acting brakes, that of ready adjustment for backing, and that it can be instantly adapted to brake the wheels by the forward draft when desired.

I do not claim the process of braking by self acting brakes, as many devices have been employed for that purpose, but

Having thus fully described my manner of constructing a self acting wagon brake,

what I claim as my invention and desire to secure by Letters Patent is—

1. The chain I operating in connection with the slotted tongue piece D when operating reversely upon the same lever with bar C for the purpose described.

2. The construction of the bar F and the plate G adapted to stops *k l* arranged and operating substantially as set forth being for the sole purpose of reversing the action of self acting wagon brakes in combinations as described.

In testimony whereof I have hereunto set my hand.

WILLIAM MAY.

In presence of—

WM. McMEER,

E. S. W. LAWRENCE.