

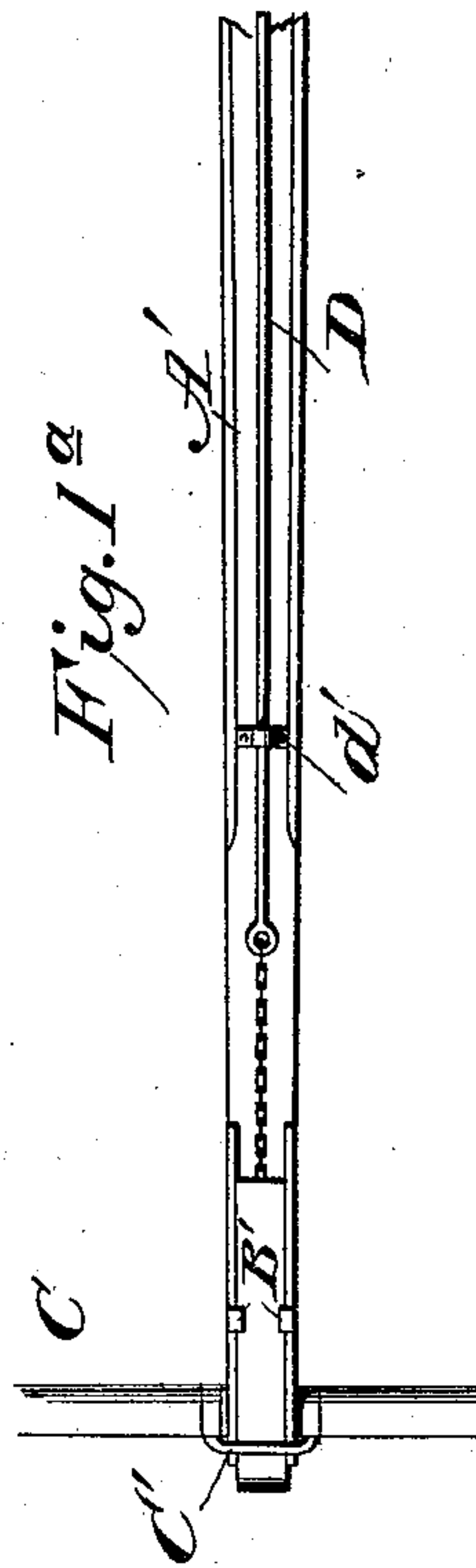
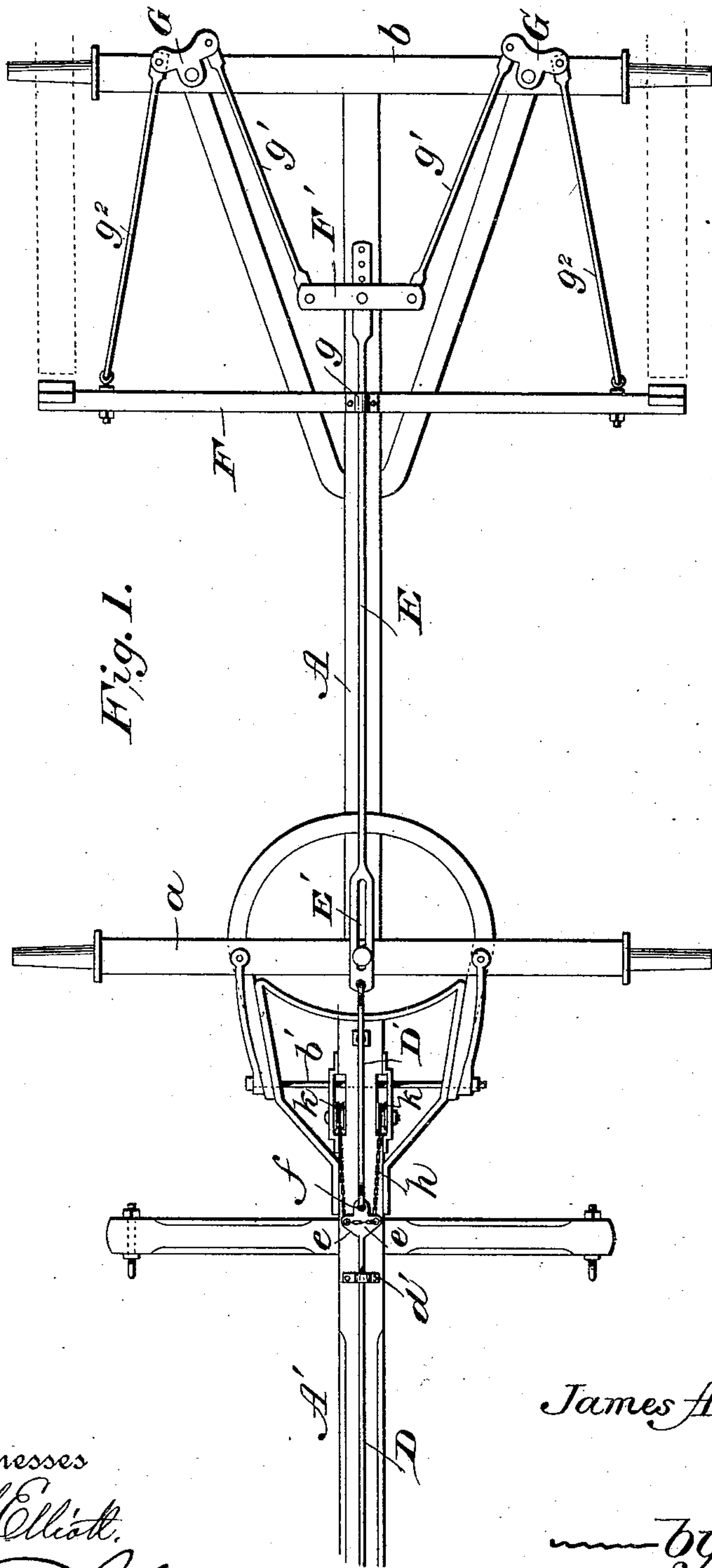
(No Model.)

2 Sheets—Sheet 1.

J. A. WHITCOMB.
WAGON BRAKE.

No. 477,979.

Patented June 28, 1892.



Witnesses

L. S. Elliott.

E. M. Johnson.

James A. Whitcomb.

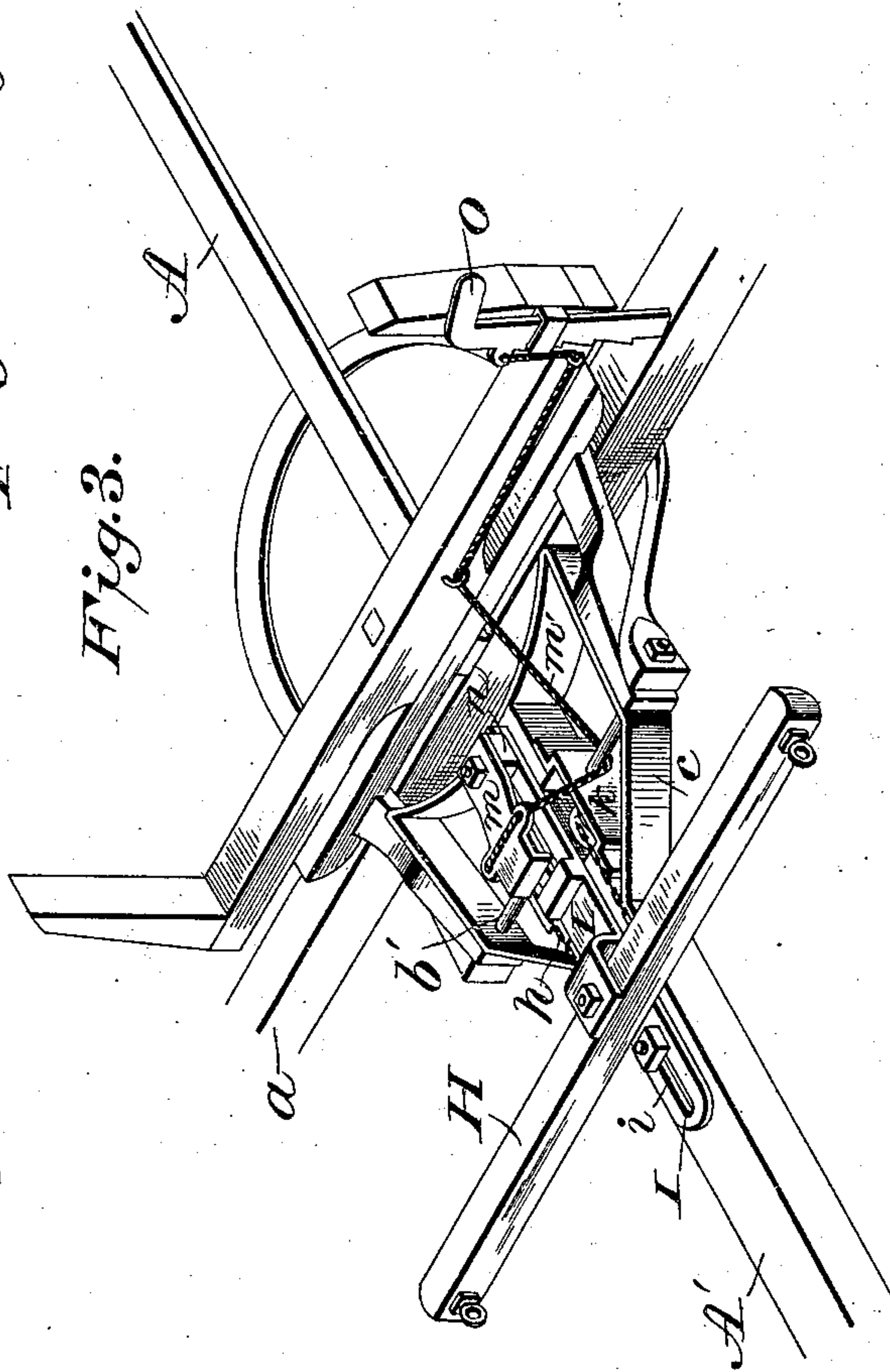
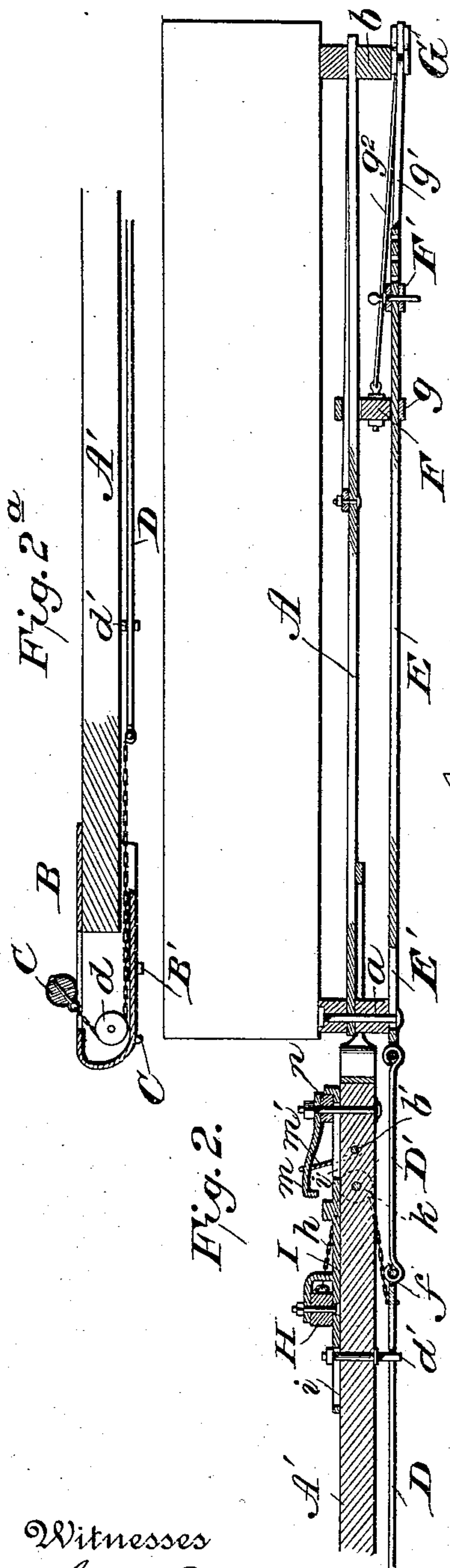
Inventor

by *[Signature]*
Attorney

2 Sheets—Sheet 2.

No. 477,979.

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Inventor

Inventor
by 
Attorney

UNITED STATES PATENT OFFICE.

JAMES ALLEN WHITCOMB, OF COLUMBUS, NEBRASKA.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 477,979, dated June 28, 1892.

Application filed February 25, 1892. Serial No. 422,763. (No model.)

To all whom it may concern:

Be it known that I, JAMES ALLEN WHITCOMB, a citizen of the United States of America, residing at Columbus, in the county of Platte and State of Nebraska, have invented certain new and useful Improvements in Wagon-Brakes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as 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.

This invention relates to improvements in automatic wagon-brakes; and it consists in the construction and combination of the parts, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a plan view showing the running-gear of a vehicle with my improvements applied thereto. Fig. 1^a is a plan view to the end of the tongue. Fig. 2 is a longitudinal sectional view. Fig. 2^a is a continuation of Fig. 2. Fig. 3 is a detail perspective view.

A designates the wagon-reach, to which the front axle *a* and rear axle *b* are attached in the usual manner. The tongue A' is connected to the hounds by the transverse bolt *b'*, which passes through the yoke *c* of the tongue. To the front end of this tongue is attached a socket B, which has an aperture in its upper portion, through which passes a chain or flexible connection, to which the neck-yoke C is secured, the chain therefrom passing over a roller *d*, through the socket B rearward to a rod D, which is supported under the tongue by suitable eyebolts *d'*. To the neck-yoke C is attached a loop C', which embraces the socket, and the rearward movement of the neck-yoke is limited by the stops B', formed on the under side of said socket. The rear end of the rod D is spread so as to provide laterally-extended portions *e e*, rear of which is a central eye *f*, with which a rod or link D' engages, the rear end of said rod being loosely attached to a bar E, near the forward end of which is a slot E', through which the king-bolt passes for connecting said bar to the under side of the wagon. The rear

end of this bar is supported by a loop *g*, carried by the brake-bar F, and beyond the brake-bar the bar E is flattened and provided with a series of perforations for adjustably connecting thereto cross bars or plates F', the outer ends of which are connected by rods *g'* to bell-crank levers G G, pivoted to the rear axle, said bell-crank levers being also connected to the brake-bar F by rods *g*².

It will be noted that by the construction hereinbefore described when the wagon or vehicle moves forward faster than the horses, as when descending a hill, the neck-yoke C being drawn upon will move forward the rods D and E and that the direction of the movement is changed by the bell-crank levers, so as to move the brake-bar and brake-shoes carried thereby in contact with the wheels. This construction provides a means of putting the brakes upon the wagon, but does not provide means for releasing the same or holding them out of engagement with the wheels when desired, and to accomplish this I movably connect the singletree H to the draft-tongue A' by pivoting the same to a fixture I, which is provided near its front and rear ends with slots *i* and *i'*, through which bolts pass for connecting the fixture movably to the tongue. This plate or fixture carries the singletree, to which is connected on each side of its pivot a flexible connection *h*, which passes over rollers *k*, pivoted on the sides of the tongue and extend forwardly therefrom to the laterally-projecting portions *e* at the rear end of the rod D. It will be seen that by this construction when the traces draw upon the singletree or the same is moved forward the rods D, D', and E will be moved rearward, so as to release the brakes.

The sliding plate or fixture I, hereinbefore referred to, has an upwardly-projecting portion or catch of suitable construction, with which a spring-pawl *m* is adapted to engage, said spring-pawl being of any suitable construction, and in the present instance consists of a rigid piece having a downwardly-bent forward end and an apertured rear end, through which passes a suitable bolt, and upon this bolt and beneath the pawl is placed a rubber block *n*, which will hold the free end of the pawl normally elevated and out of engagement with the upwardly-projecting portion of the sliding plate.

The pawl or catch *m* is provided with a flexible connection *m'* for depressing the same to throw it in engagement with the plate, one end of said flexible connection being attached
 5 on one side of the tongue and passed through and over the pawl, and from there under the bolt *b'* and through an eye on the bolster to a lever *O*, having a notched edge for engagement with the loop, through which it passes.
 10 By properly manipulating the cord *m'* the pawl *m* can be thrown in engagement with the sliding plate *I*, so as to prevent the brakes being put on.

From the above it will be noted that my invention consists in three features. In one instance the brakes are put on by the rearward movement of the neck-yoke; in the second instance they are held out of engagement by the forward movement of the singletree, and
 20 in the third they are held off or locked out of engagement with the wheels by a movable plate *I*.

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

1. In an automatic brake mechanism, the combination of a movable brake-bar, rods connecting the same to bell-crank levers which are pivoted directly upon the rear axle, rods
 30 of less length connecting the inner ends of the bell-crank levers to a movable bar, said bar being held in sliding engagement with the forward axle and connected to a rod carried by the tongue, the forward end of said
 35 rod being flexibly connected to the neck-yoke, a singletree movably secured to the tongue so as to slide thereon and connected with the rod carried by the under side of the tongue, and a movable plate, to which the singletree is
 40 attached, having an upwardly-projecting por-

tion, which is adapted to be engaged by a retaining-pawl, said pawl being normally elevated and being provided with a flexible connection for manipulating the same to hold it in engagement with the projecting portion of
 45 the plate, substantially as shown, and for the purpose set forth.

2. In an automatic brake mechanism, the combination of the rods or bars *D* and *E*, connected to each other by a link and to the running-gear and tongue, as shown, a brake-bar
 50 connected by rods to bell-crank levers carried by the rear axle, rods of less length, also connected to said bell-crank levers and to transverse bars which are adjustably attached to
 55 the rod *E*, the forward end of the tongue carrying a fixture or socket *B*, with a roller, and apertures through which pass a flexible connection attached at one end to the rod *D* and
 60 at the other end to the neck-yoke, a plate *I*, movably attached to the rear end of the tongue, said plate carrying the singletree, an upwardly-projecting portion *l*, formed on the
 65 plate rear of the singletree, flexible connections attached to the singletree and extending therefrom around guide-pulleys to the rear end of the bar *D*, to which they are attached,
 70 a pawl or catch held normally elevated by spring-pressure, and a flexible connection attached thereto and passed around and through
 75 suitable guides to a fixture *O* for throwing the pawl in engagement with the projecting portion of the sliding plate, substantially as shown, and for the purpose set forth.

In testimony whereof I affix my signature in
 75 presence of two witnesses.

JAMES ALLEN WHITCOMB.

Witnesses:

LEANDER GREEN,
 V. H. WEAVER.