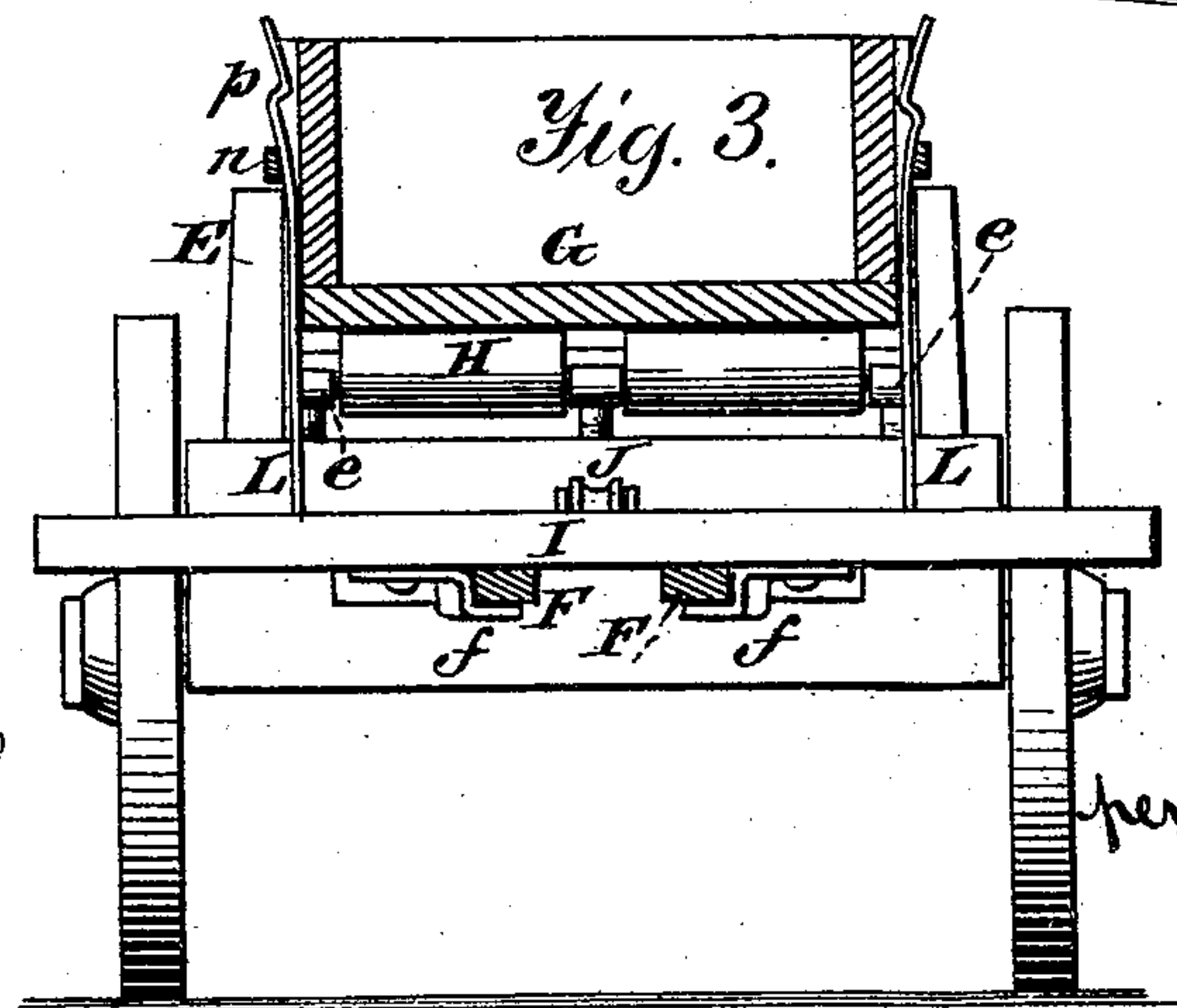
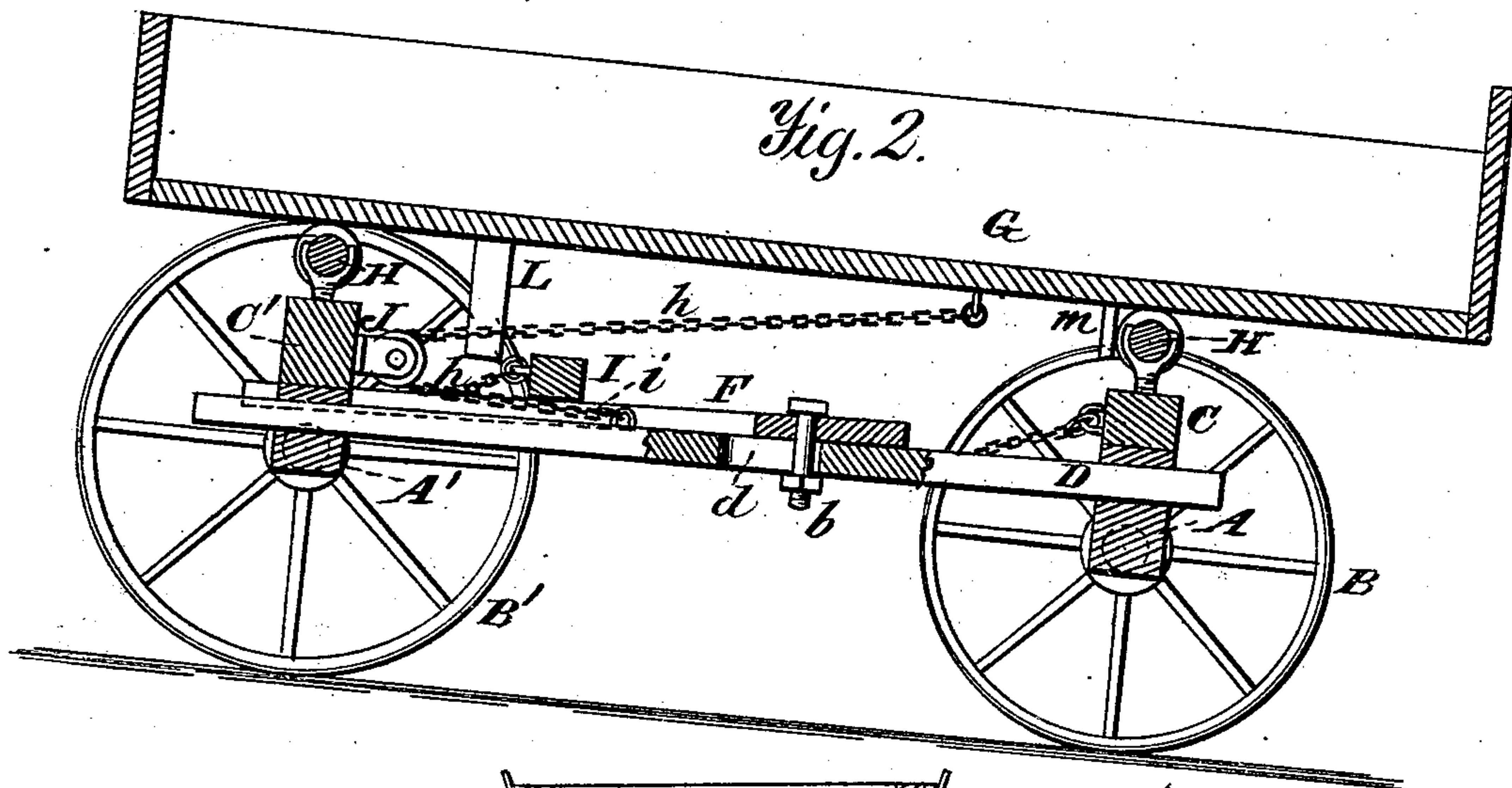
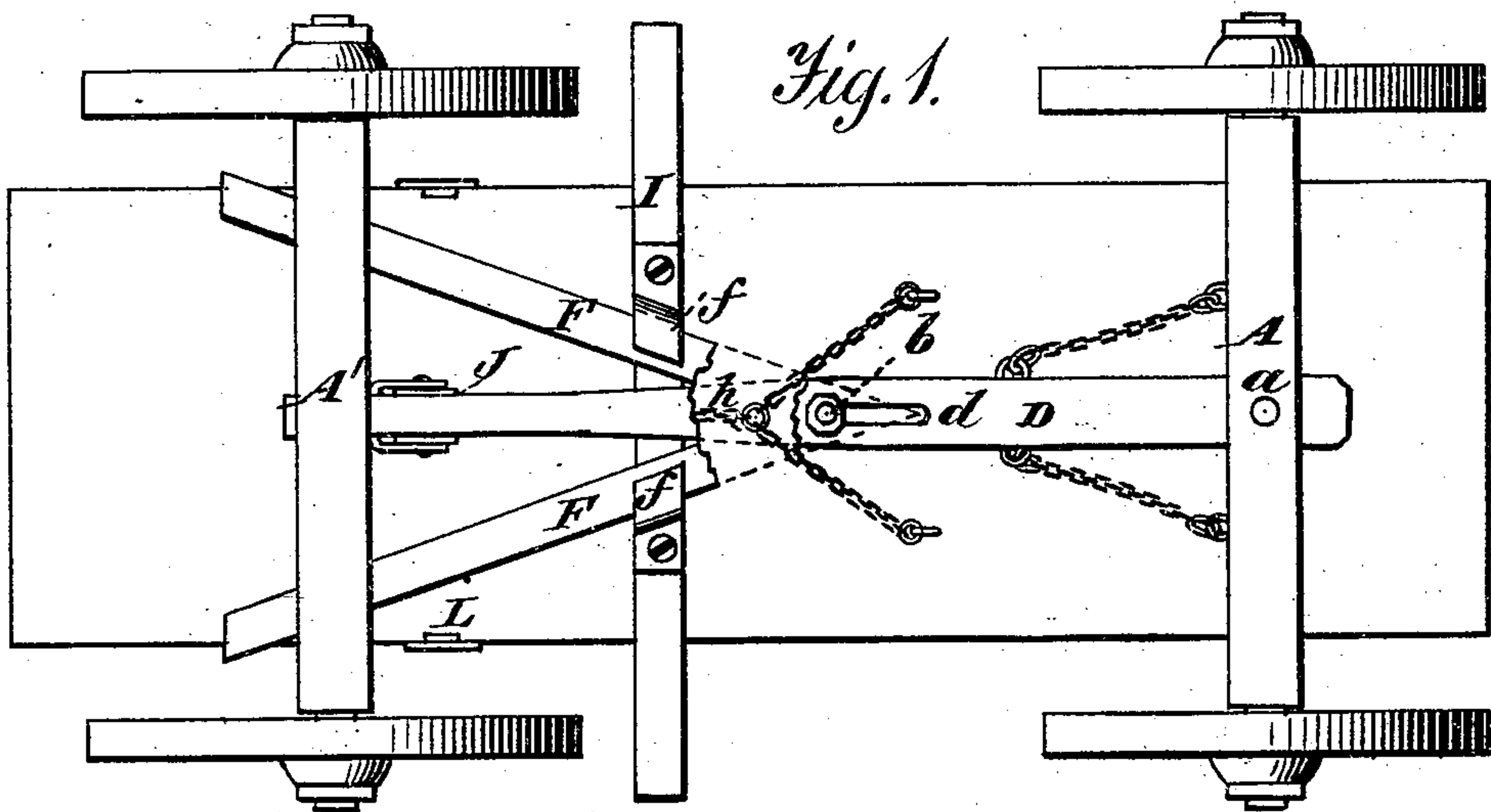


(No Model.)

A. L. WITHERS, Jr.
Wagon-Brake.

No. 227,194.

Patented May 4, 1880.



Witnesses.
A. Ruppert,
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UNITED STATES PATENT OFFICE.

ADDISON L. WITHERS, JR., OF SUMMIT POINT, WEST VIRGINIA.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 227,194, dated May 4, 1880.

Application filed March 11, 1880. (No model.)

To all whom it may concern:

Be it known that I, ADDISON L. WITHERS, Jr., of Summit Point, in the county of Jefferson and State of West Virginia, 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.

The nature of my invention consists in the construction and arrangement of a wagon-brake operated automatically by the sliding movement of the wagon-body, as will be hereinafter more fully set forth.

In the annexed drawings, to which reference is made, and which fully illustrate my invention, Figure 1 is a bottom view of a wagon embodying my invention. Fig. 2 is a longitudinal vertical section, and Fig. 3 a transverse vertical section, of the same.

A is the front axle, with wheels B B and the bolster C pivoted thereon by the usual king-bolt *a*. A' is the rear axle, with wheels B' B' and bolster C' secured thereon. D is the reach, pivoted in the front axle by the king-bolt, and having its rear end passing through a slot or opening in the rear axle, A'. From the rear axle, A', extend two inclined hounds, F F, the front ends of which are united, as shown, and a pin, *b*, is passed downward through said joined ends. This pin passes through a longitudinal slot, *d*, in the reach D, and admits of the front and rear axles being brought closer together or farther apart, just the length of the slot *d* in the reach.

Upon the ends of both bolsters C C' are the standards E, between which the body G is placed, said body resting upon rollers H H, which are mounted in suitable journal-bearings *e*, secured on the bolster. There are two end bearings and one center bearing for each roller, each bearing being in the form of a half-round box, and the roller is turned down in the center and at the ends to form the journals for resting in these bearings.

I represents the brake-lever, which is in-

tended to be provided with brake-shoes of any suitable construction to bear against the front edges of the hind wheels, B'. This brake-lever rests upon the hounds F, and has guides *f* attached to its under side, to pass under the hounds, and be thus kept in position while the lever is moving backward and forward on the hounds a suitable distance.

A chain, *h*, is attached to the brake-lever I and passes around a pulley, J, at the front of the hind axle, and is then passed upward and connected to the body G, either in one or two branches, as shown, or as may be deemed most convenient. A short chain, *i*, is attached to the reach D at a point in front of the brake-lever, and runs backward and is connected either to said brake-lever or to the chain *h* a short distance in front of the brake-lever.

When the team is pulling the wagon the reach D is extended and the chain *i* keeps the brakes off from the hind wheels. In going down the hill the body G slides or rolls forward on the rollers H H, which causes the chain *h* to pull the brake-lever I backward, so as to apply the brakes to the wheels B'; and when the wagon then gets on level ground, or so that the team will pull again, the forward axle, with its wheels and the reach, are drawn forward, causing the chain *i* to pull the brakes off from the hind wheels.

The body G has a pin or lug, *m*, projecting downward from its bottom to form a stop for the forward movement of the body. On each side of the body G, a suitable distance from its rear end, is made a vertical groove for the insertion of a sliding bar or strip, L, which is held in the groove by a cross-piece, *n*, as shown. The upper end of the bar or strip L is formed with a shoulder or offset, *p*, as represented particularly in Fig. 3.

When the bars L are pushed down they will form stops for the backward movement of the body; but when pulled up so that the shoulders *p* will rest on the upper edges of the body, and thus support said bars in the elevated position, the body can be run back and tilted for dumping.

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

1. In a wagon, the combination of the body G, supported upon rollers H H, a sliding reach, D, and a sliding brake-lever, I, connected by one or more chains, *h*, to the body, so as to operate in opposite directions, substantially as and for the purposes herein set forth.

2. The combination of the sliding reach D, movable body G, sliding brake-lever I, pulley J, and chains *h* and *i*, all constructed and arranged substantially as and for the purposes herein set forth.

3. The movable bars or strips L, formed with the shoulders or offsets *p*, in combination with the sliding wagon-body G, as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 28th day of February, 1880.

ADDISON L. WITHERS, JR.

Witnesses:

JOSEPH FORREST,

JAS. H. LANGE.