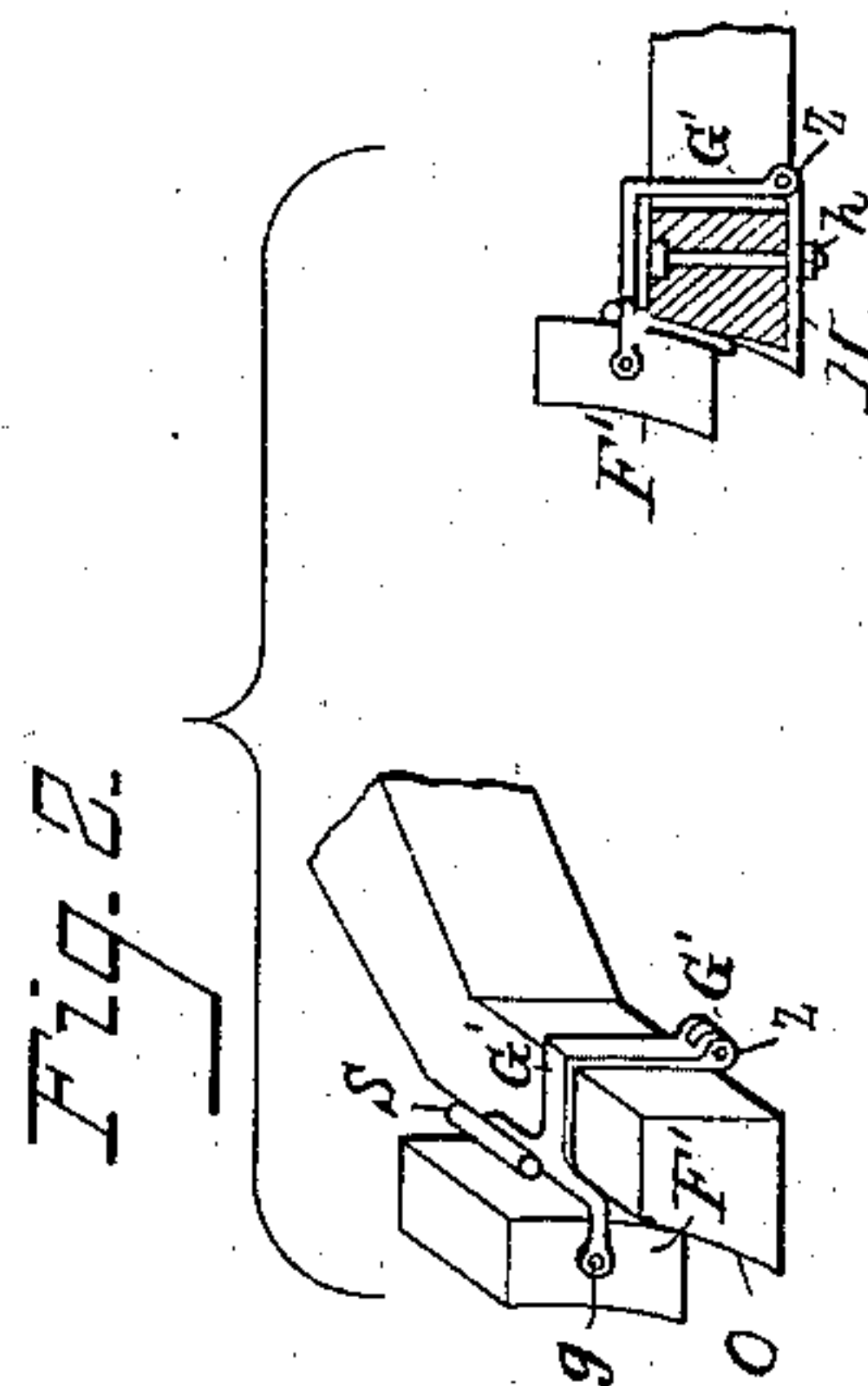
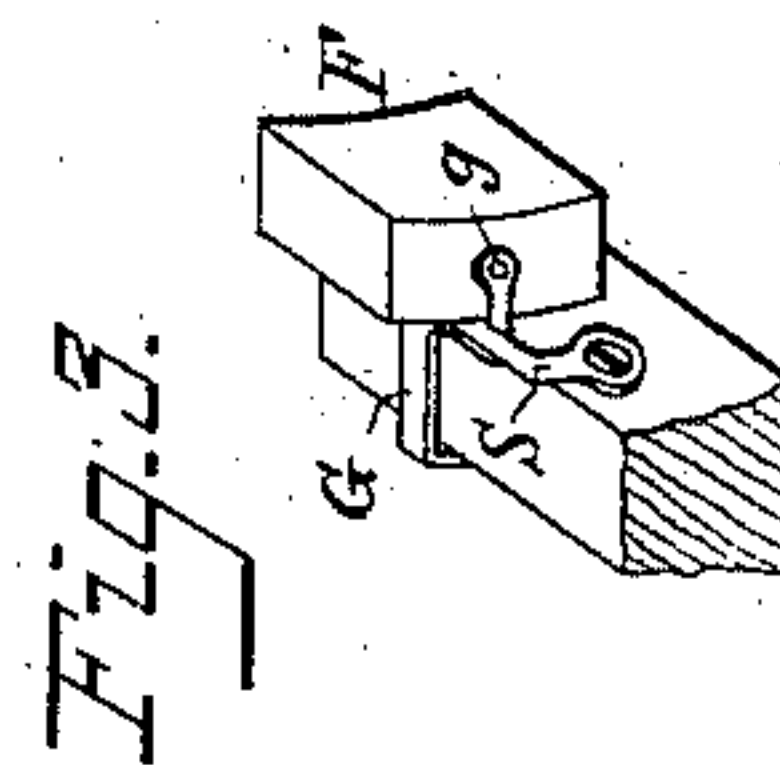
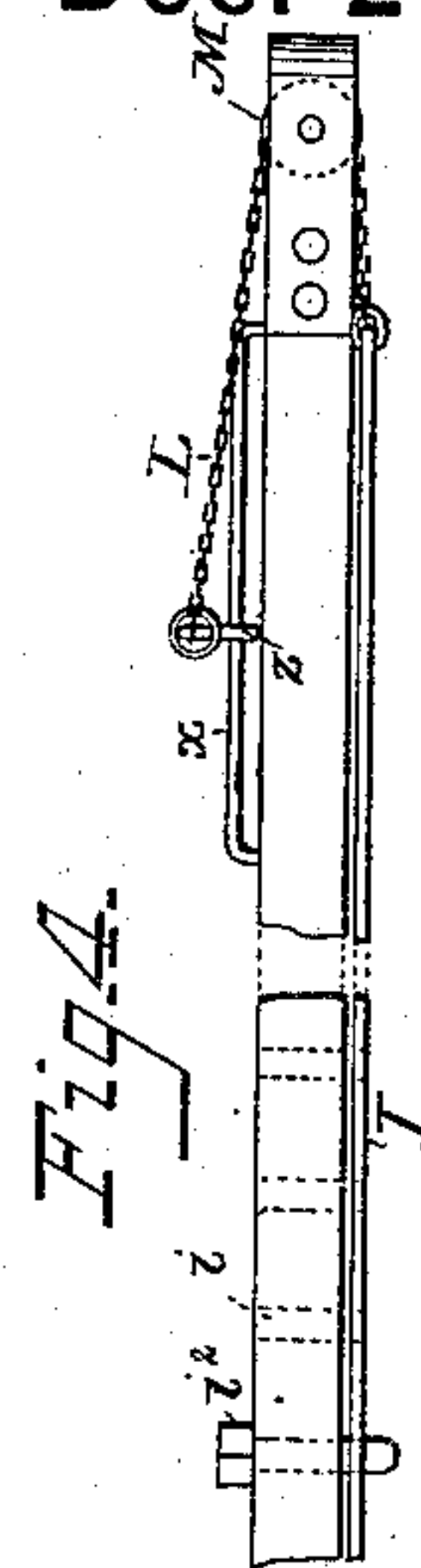
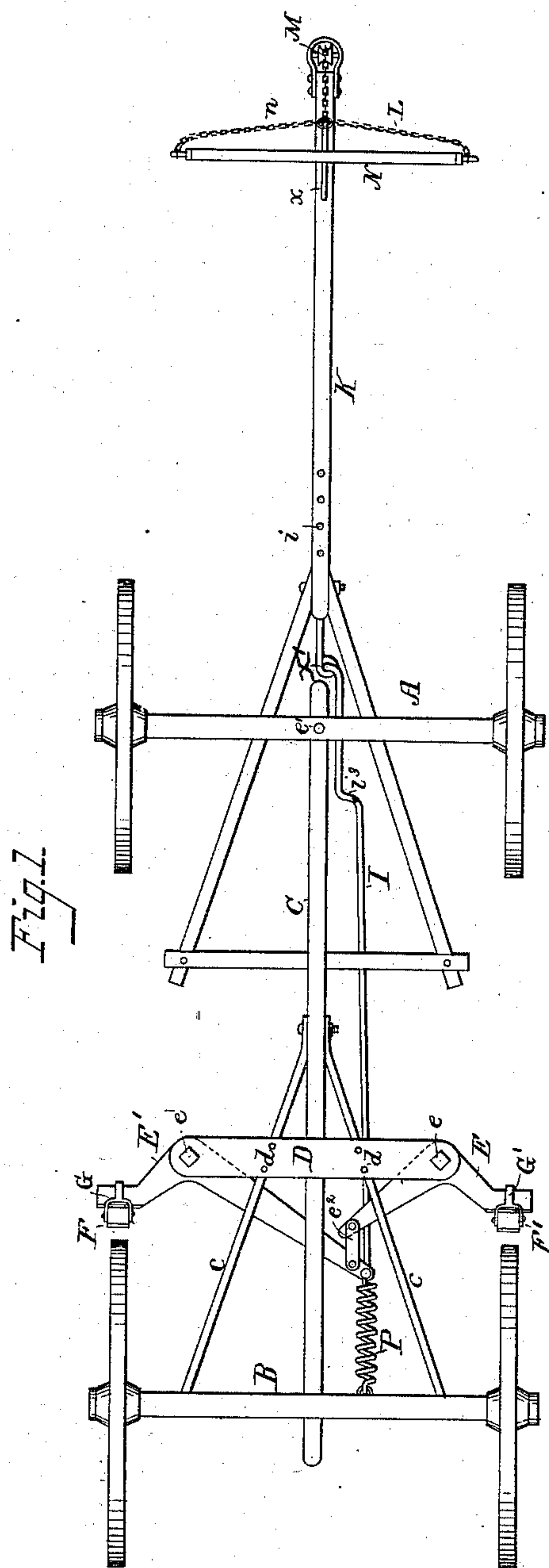


(No Model.)

W. B. JACKSON.  
Wagon Brake.

No. 235,773.

Patented Dec. 21, 1880.



Attest:  
Country & Cooper.  
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Inventor:  
W. B. Jackson  
By his Attorney  
Charles E. Foster

# UNITED STATES PATENT OFFICE.

WILLIAM B. JACKSON, OF HIGH SHOALS, GEORGIA.

## WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 235,773, dated December 21, 1880.

Application filed September 6, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM B. JACKSON, of High Shoals, Walton county, State of Georgia, have invented an Improvement in Wagon-Brakes, of which the following is a specification.

My invention relates to wagon-brakes, and its object is to provide a brake of economical construction which shall be effective and durable in operation.

The invention consists in the combinations of parts hereinafter described, and pointed out in the claims.

In the drawings forming part of this specification, Figure 1 is a plan view of the running-gear of a wagon having my improvements applied thereto. Fig. 2 illustrates detached views of the outer end of one of the brake-levers and brake-shoes, showing their relative arrangement. Fig. 3 is a detached view of one of the brake levers and shoes, looking from the inner end of said lever; and Fig. 4 is a detached view of a portion of the tongue and operating-rod.

A represents the front axle, and B the rear axle, of a wagon. C is the reach, and *c c* the hind hounds of the same. D is a cross-bar attached to the hind hounds by pins or bolts *d d*.

E and E' represent the brake-levers, pivoted near their outer ends to the respective ends of the cross-bar D by pivots *e e'*, while their inner ends are connected by a strap or link, *e<sup>2</sup>*. To the inner end of the lever E' is secured one end of a spiral spring, P, the opposite end of the spring being attached to the rear axle or bolster.

The brake-levers are respectively formed with beveled ends *o*, to afford a bearing for the brake-shoes F F', which latter are also inclined and connected to the ends *o* of the brake-levers by clamps G G'. The latter are bifurcated at one end to form two arms, *g*, which embrace the sides of the brake-shoe and hold the same in place by means of screws or bolts. The opposite ends of said clamps are hinged at Z to metallic straps or braces H, which are of L shape, and secured by the bolts *h* to their respective brake-levers, and have their rear ends beveled and lapped over the rear side of the brake-levers to protect the latter.

S represents a hook or guard which is pivoted to the brake-arms adjacent to the clamp G, and is adapted to be hooked over said clamp to lock the latter in place.

By this construction it will be observed that there is little or no liability of the brake-shoes becoming displaced, since when the strain is imparted to the shoes the latter are forced firmly against their inclined bearings, and should the brake-shoes become wedged tight a slight checking or backing of the team will cause them to turn upward from the hinge Z, relieving the jam.

The inner ends of the brake-levers are connected, either directly or indirectly, to an operating-rod, I, which extends forward under the wagon-tongue K, and is secured at its front end to a cord or chain, L, which latter passes over a pulley, M, in the end of the tongue, and is attached to the breast-bar N of the wagon by a cord or chain, *n*, which is connected at either end to said bar, and is provided with a central ring or loop, *z*, connected to an elongated loop or staple, *x*, on the top of the tongue.

The tongue K is provided with a series of perforations, *i'*, which correspond with a similar series of perforations in the operating-rod I, to receive a locking-pin, *i<sup>2</sup>*. The operating-rod I is also formed with a joint, X', and a bend or offset, *i<sup>3</sup>*, below the operating parts, to permit of the free movement of the latter in turning the vehicle.

The operation of the brake is as follows: When the vehicle starts down a grade the team naturally bears back. This pulls the operating-rod I, attached to the brake-levers E E', forward and forces the brake-shoes F F' against the rear wheels, the spiral spring having previously held them away from said wheels. As soon as the brake-shoes come in contact with the said wheels the former are forced against the beveled surfaces *o* of the brake-levers E E', and the lock is complete. When the vehicle reaches level ground the strain on the rod I is released by the movement of the team forward, and the spiral spring P, acting on the inner ends of brake-levers, forces the brake-shoes away from the wheels.

If it is desired to permanently lock the wagon,



the key-pin  $i^2$  is inserted in one of the holes  $i$ , and the hooks  $S$  are turned up over the brake-clamps  $G$   $G'$ , and the operation is complete.

I am aware that brake-levers and brake-shoes have heretofore been formed with beveled meeting surfaces and connected by bails; but when so formed the brake-shoe has been slotted to admit of the play of the connecting-bail, and thus the strength of the shoe is lessened; and, moreover, the friction caused by the movement of the bail within said slot materially impairs the durability of the shoe. My invention overcomes this defect by employing a connecting device formed with two arms, which embrace the sides of the brake-shoe and are secured thereto. I also strengthen the connection of the brake lever and shoe by securing to the former a metallic brace, the rear side of which is beveled and overlaps the face of the brake-lever and forms a protection or facing for that part of the lever upon which the brake-shoe bears, while to its front end is hinged one end of the connecting-clamp.

It is obvious that by this construction all sliding movement of the brake-shoe is prevented and the shoe moved only with its connecting-clamp.

I claim—

1. In a wagon-brake, the combination, with the bevel-edged brake-levers and hinged brake-shoes, of the braces  $H$ , clamps  $G$ , and locking-hooks  $S$ , substantially as described.

2. The combination, with the brake-levers and pivoted front axle, of an operating-rod,  $I$ , extending from the tongue to the brake-levers and jointed adjacent to the king-bolt, for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM BARXDALE JACKSON.

Witnesses:

W. B. LANGFORD,  
WASH. B. JACKSON.