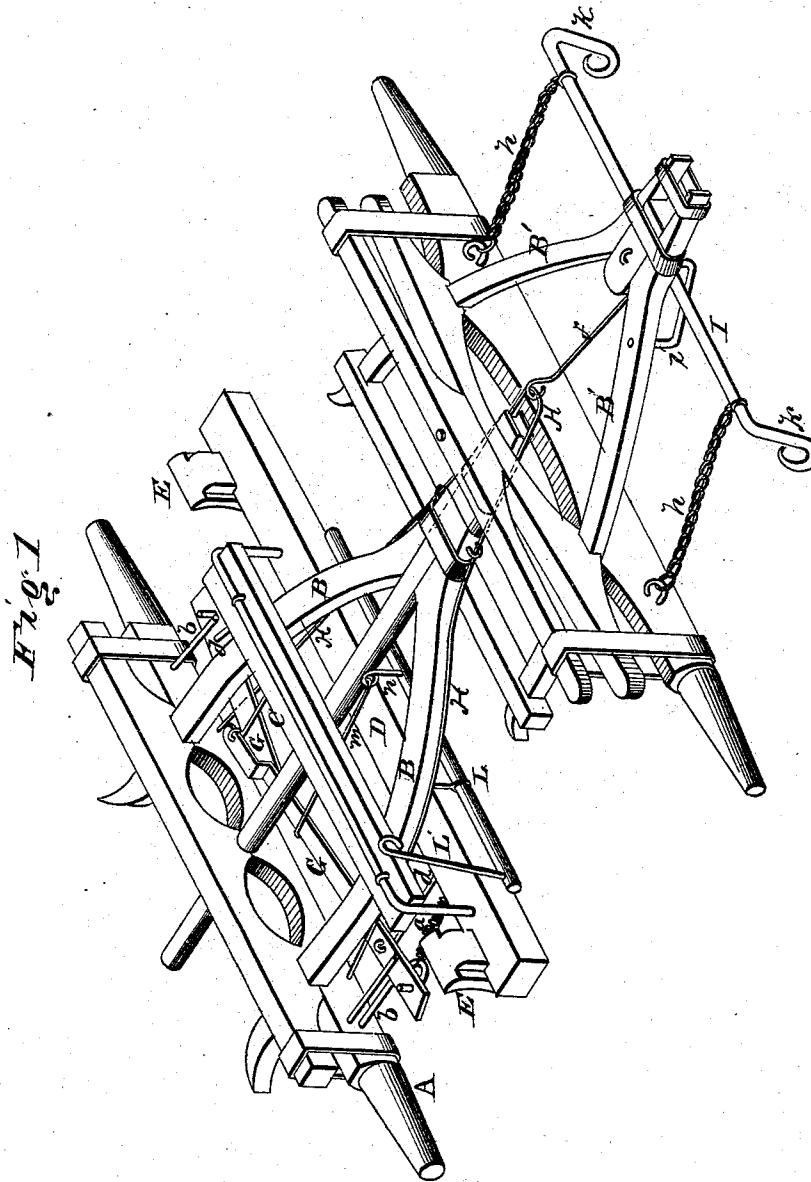


W. S. & F. PANGLE.
WAGON-BRAKE.

No. 177,880.

Patented May 23, 1876.



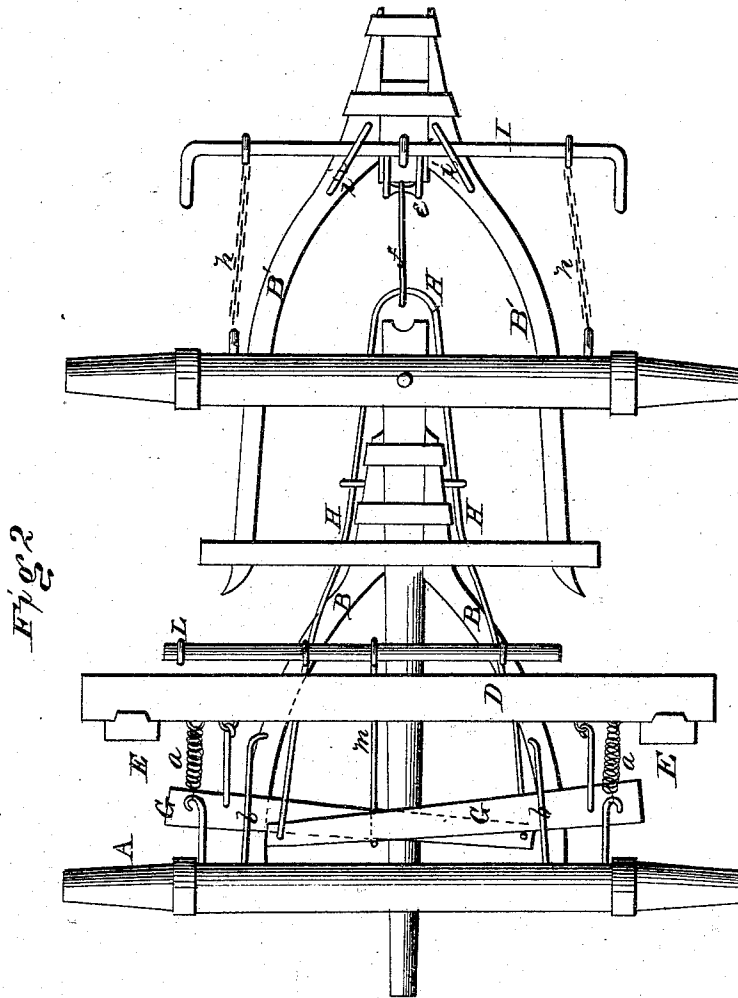
WITNESSES
Frank L. Owsand
C. C. Cuyler

INVENTOR
W. S. Pangle
F. Pangle
By *Alexander Mason*
Attorneys.

W. S. & F. PANGLE.
WAGON-BRAKE.

No. 177,880.

Patented May 23, 1876



WITNESSES

Frank L. Curand
C. L. Ewert

INVENTOR

INVENTOR
W. S. Pangle
F. Pangle
By Alex. and T. Mason
Attorneys

UNITED STATES PATENT OFFICE.

WILLIAM S. PANGLE AND FREDERICK PANGLE, OF WHITESBURG, TENN.

IMPROVEMENT IN WAGON-BRAKES.

Specification forming part of Letters Patent No. 177,880, dated May 23, 1876; application filed February 11, 1876.

To all whom it may concern :

Be it known that we, WILLIAM S. PANGLE and FREDERICK PANGLE, of Whitesburg, in the county of Hamblen, and in the State of Tennessee, have invented certain new and useful Improvements in a Self-Lock, which is applicable to wagons, vehicles, and all rolling stock; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of our invention consists in the construction and arrangement of an automatic or self-operating wagon-brake, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a perspective view of the running-gear of a wagon with our wagon-brake attached thereto. Fig. 2 is a bottom view of the same.

A represents the rear axle, with hounds B B and a top cross-bar, C, from which latter the brake-bar D is suspended in such a manner as to swing back and forth, said brake-bar having the shoes E E secured to it in any suitable manner. These shoes are held against the hind wheels by means of springs *a a*, connecting the bar D with staples or irons *b b*, attached to and projecting from the front of the axle A. On these irons are pivoted the outer ends of two levers, G G, the inner ends of which overlap each other. At a suitable distance inward from the outer end of each lever a rod, *d*, connects the same with the brake-bar, as shown. To the inner ends of the levers G G are attached the ends of a bent rod or wire, H, the center of which passes around the front end of the wagon-reach, and is connected, by a rod, *f*, with a crank, *e*, projecting from the center of a rod, I, acting as a double-tree. This rod is placed in elongated staples

ii under the front hounds B' B', and the rod is near each end, by a chain, *h*, connected with the front axle A'. The ends of the rod are bent downward, forming cranks *k k*, to the lower ends of which the single-trees are to be attached. When the team pulls, the rod I is turned, so that the cranks *k* at the ends will project forward, and the center crank *e*, by means of the connecting-rod *f*, pulls the bent rod H, so as to draw the inner ends of the levers G G forward, whereby the rods *d* push the brake-bar, with its shoes, away from the wheels. As soon as the draft slackens, the springs *a* at once throw the brakes against the wheels again. When backing it is necessary that the brakes should be thrown off, and for this purpose the levers G G are, by a rod, *m*, connected with an arm, *n*, projecting from a rocking shaft, L, suspended under the rear hounds, and this shaft is, at one end, provided with a crank, L', so that the driver can at any time throw the brakes by hand.

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

1. The brake-bar D, having the brake-shoes E, and suspended below the hounds by an angular rod resting upon the cross-bar C, the levers G G overlapping each other, the connecting-rods *d d*, springs *a a*, irons *b b*, bent rod H, connecting-rod *f*, and swinging double-tree I, with center crank or arm *e*, all constructed and combined substantially as and for the purposes herein set forth.

2. The rocking shaft L, with crank L', arm *n*, and connecting-rod *m*, in combination with the levers G G, substantially as and for the purposes herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 8th day of February, 1876.

WILLIAM S. PANGLE.
FREDERICK PANGLE.

Witnesses:

WILLIAM S. MARSHALL,
W. WHEELER.