

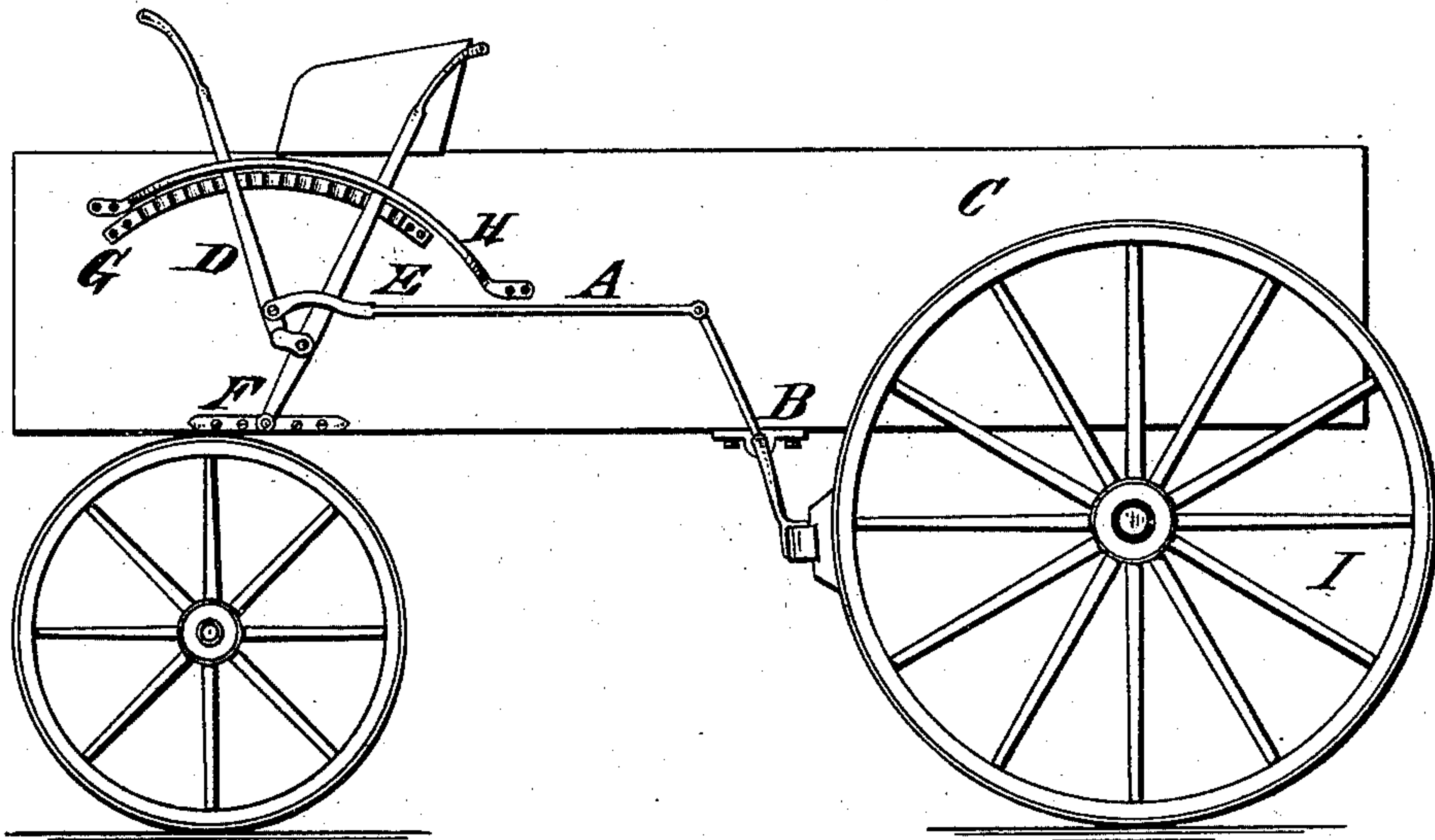
(No Model.)

B. F. BALL.  
WAGON BRAKE.

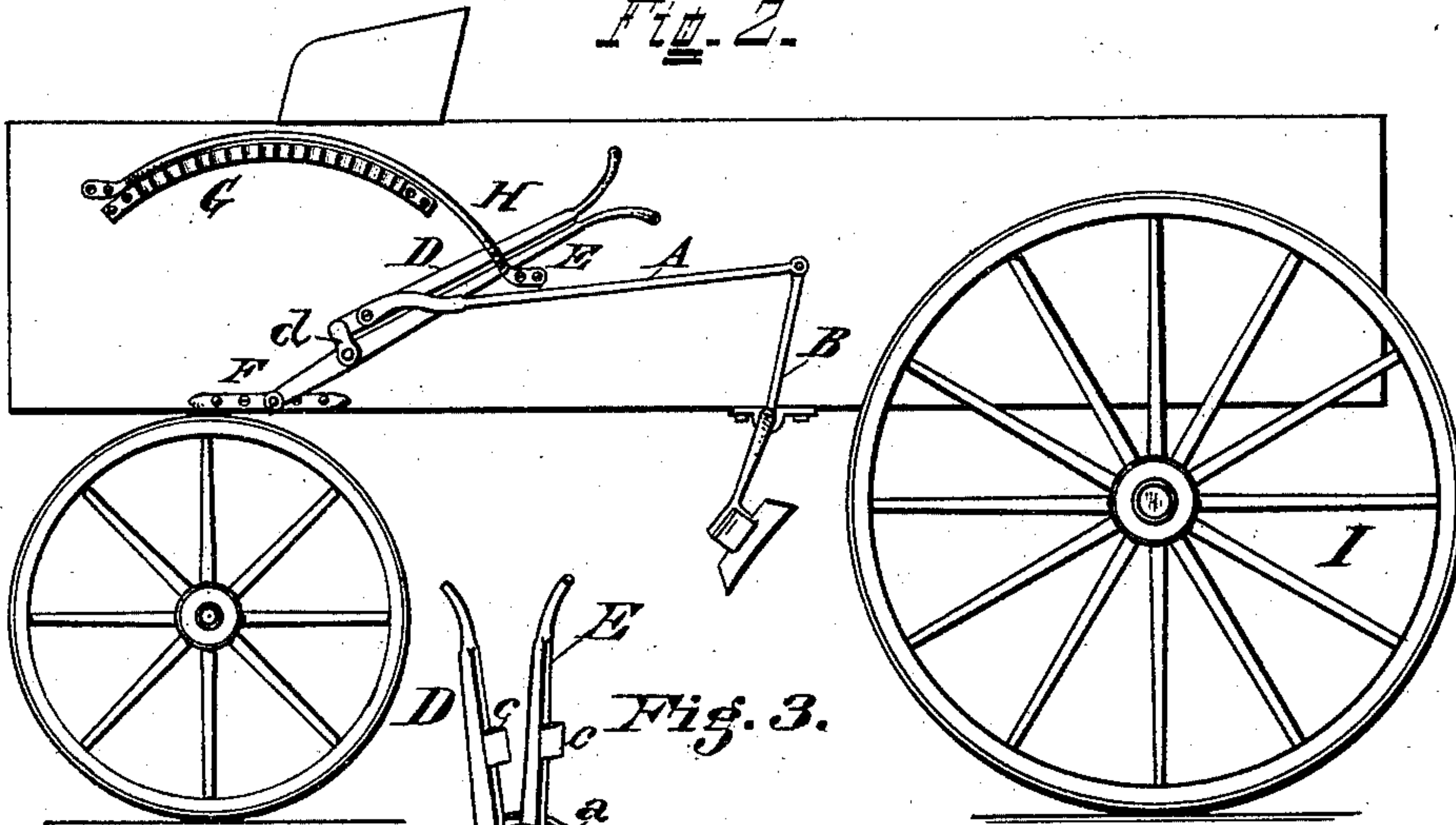
No. 300,188.

Patented June 10, 1884.

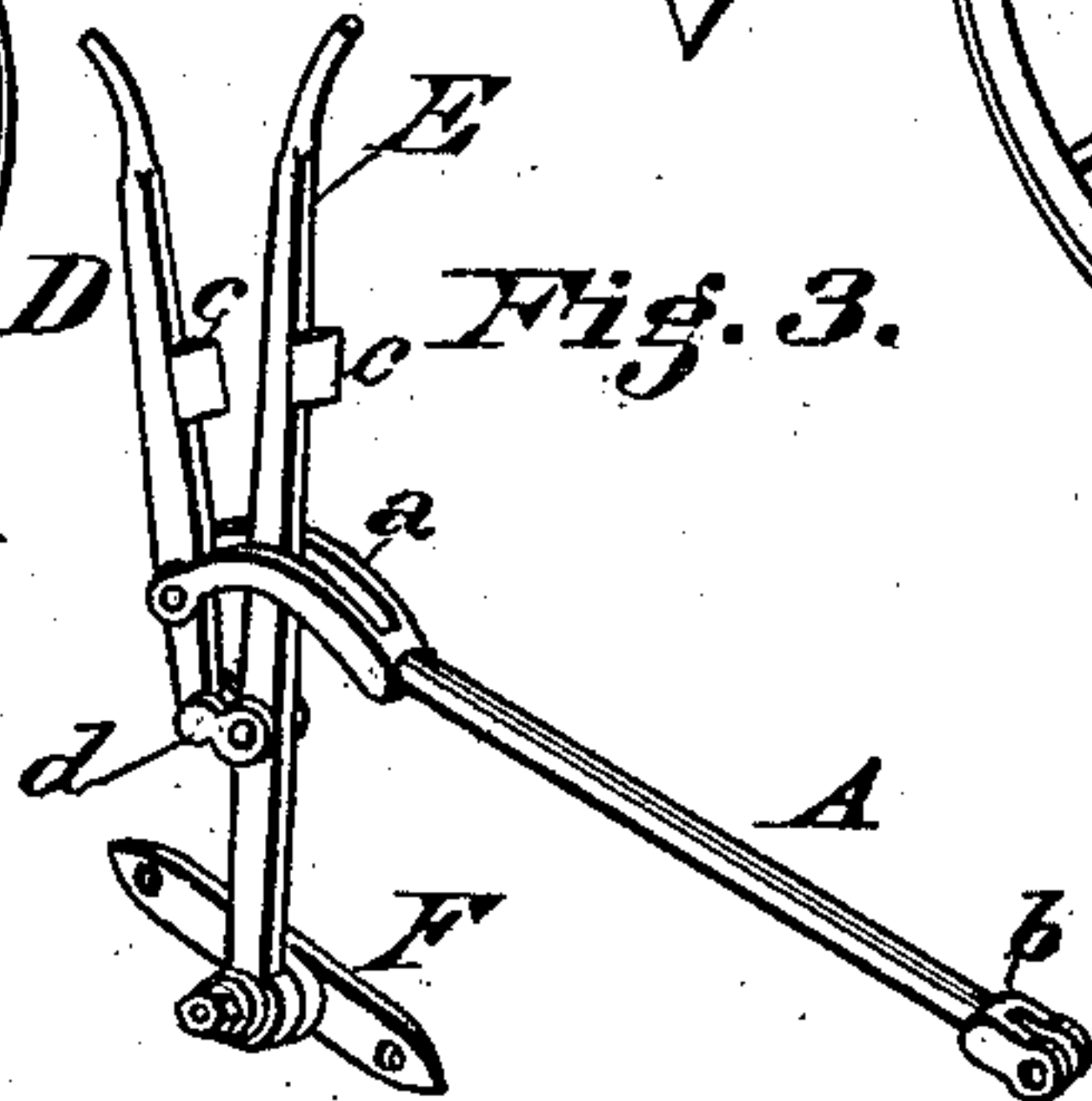
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Attest  
Carl Spengel

*Geo. E. Jones*

Inventor  
*Benjamin F. Ball*  
by *Wood & Boyd*  
his Attys

# UNITED STATES PATENT OFFICE.

BENJAMIN F. BALL, OF CINCINNATI, OHIO.

## WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 300,188, dated June 10, 1884.

Application filed February 25, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN F. BALL, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Wagon-Brakes, of which the following is a specification.

The object of my invention is to provide a wagon-brake which can be readily operated to furnish more power than an ordinary lock-brake, and also obtain a farther throw of the brake-shoe, removing it a considerable distance out of the way of the wheels, all of which will be fully set forth in the description of the accompanying drawings.

Figure 1 is a side elevation of the wagon containing my improvement set to lock the wheels. Fig. 2 is a similar elevation showing the lock out of use. Fig. 3 is a perspective view of the locking-levers and connecting-rod.

A represents the connecting-rod, the rear end of which is provided with a fork, *b*, which is hinged to the brake-lever B, and the other end is provided with the fork *a*, which is pivoted to the supplemental lever D.

E represents the main operating-lever, fulcrumed upon a metallic strap, F, secured to the wagon-bed. This strap F is provided with several holes, so as to adjust the position of the lever. The supplemental lever D is provided with a fork, *d*, at its lower end, which is pivoted to the main lever E.

*c c* represent lugs on the levers D E, for engaging with rack-teeth G.

H represents a guard set opposite the segmental rack G, to hold the levers in position, the lower end of which guard acts as a stop to hold the levers when out of use.

By having the lever E move in the crotch of the forks *a*, it is in the same line of travel and strain as lever D, and both can engage with the same set of rack-teeth, one in front of the other.

By providing the lever D with a bell-crank fork, *d*, and fulcruming it to the lever E and

to the connecting-rod A, a great amount of power can be applied by lever D to the connecting-rod A and brake-lever B, so as to lock the wheel I and prevent it from revolving.

The levers D E, for ordinary purposes, can be used together. They are so shaped that the hand can grasp both, as shown in Fig. 2, and for ordinary purposes of locking they will be used as one. As the lugs *c c* of both operate on the same set of rack-teeth, the levers can be attached and detached simultaneously by the same movement.

When it is desired to apply very great power after the levers D E are moved together to set the brake against the wheel, then lever D is moved forward from lever E to apply additional locking force; or, if desired, the operator may place his foot against lever D, and move it forward and hold it by the foot to lock the wheel, or temporarily apply more power without disturbing the lock or force applied through lever E.

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

1. The combination, with the brake-rod A, of levers E D, connected therewith, and adapted to be moved together as one lever to operate the brake, the lever D having also a motion independently of the lever E when the latter is locked, substantially as described.

2. In a wagon-brake, the combination, with the forked brake-rod A and the rack G, of the lever D, connected directly to the forked brake-rod and to the lever E, the lever E working loosely in the fork of the rod, whereby the lever D may be moved independently of the lever E when the latter is locked, substantially as described.

In testimony whereof I have hereunto set my hand.

BENJAMIN F. BALL.

Witnesses:

M. E. MILLIKAN,  
JOSEPH W. SIMS.