

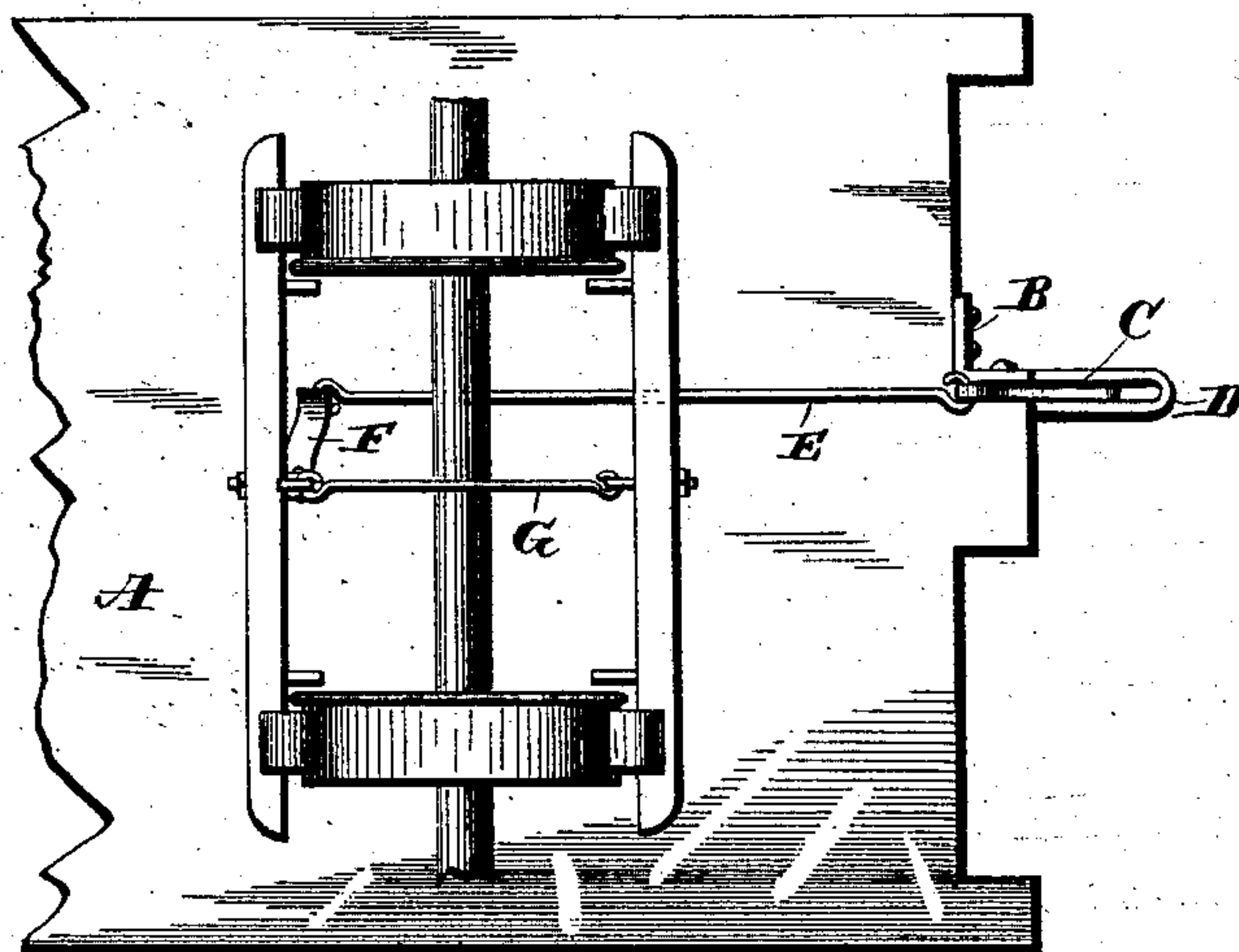
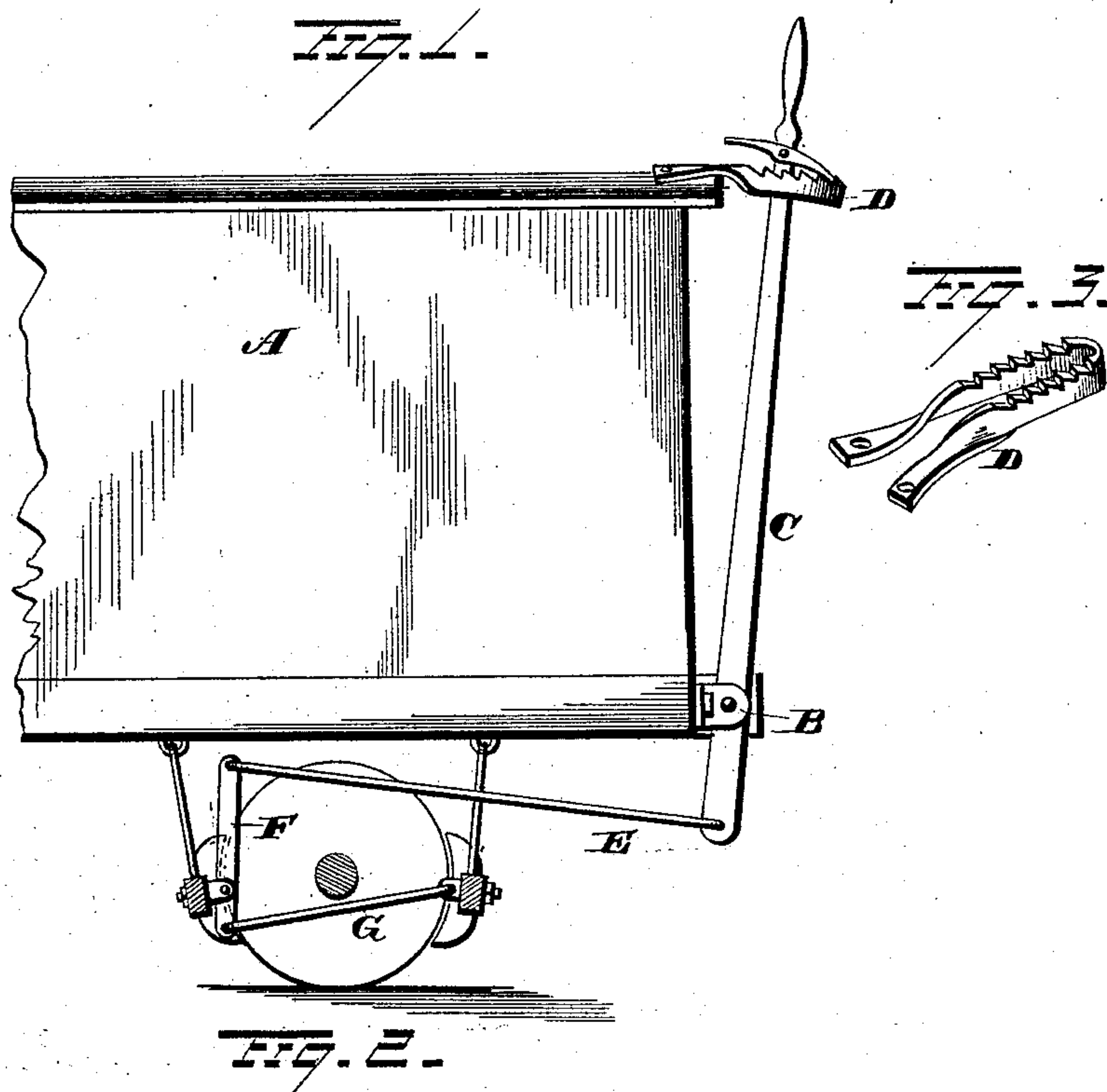
(No Model.)

M. TURLY & R. T. BRYANT.

CAR BRAKE.

No. 291,109.

Patented Jan. 1, 1884.



WITNESSES

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# UNITED STATES PATENT OFFICE.

MARSHALL TURLY AND REUBEN T. BRYANT, OF COUNCIL BLUFFS, IOWA.

## CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 291,109, dated January 1, 1884.

Application filed October 12, 1883. (No model.)

*To all whom it may concern:*

Be it known that we, MARSHALL TURLY and REUBEN T. BRYANT, of Council Bluffs, in the county of Pottawattamie and State of Iowa, have invented certain new and useful Improvements in Railroad-Car Brakes; and we 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.

Our invention relates to an improvement in railroad-car brakes, adapted more particularly for freight-cars, the object of the same being to provide a brake of few parts, that will be safe and easy to operate, and that will combine economy in construction with durability and efficiency in use; and with these ends in view our invention consists in the parts and combinations of parts, as will be more fully described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a view in side elevation, partly in section. Fig. 2 is a reverse plan view of our improvement, and Fig. 3 is a detached perspective view of the rack-bar.

A represents a box-car, provided at one end, near its lower edge, and to one side of the draw-head, with a metallic bracket, B, to which the long lever C is pivotally secured. This lever C can be perfectly straight; or that portion thereof below the bottom of the car can be bent either inwardly or outwardly, as necessity demands. This lever projects upwardly above the top of the car, so as to be within easy reach of the brakeman, and is held in position near its upper end by the U-shaped rack-bar D, which latter embraces the lever C. This rack-bar is secured to the top of the car in any suitable manner, and projects outwardly therefrom sufficiently to enable the operating-lever C to move backward and forward a sufficient distance. The two arms, sides of the U-shaped rack-bar, are provided with teeth, and the lever C is provided with a gravity-dog adapted to engage the teeth of the rack-bar for the purpose of holding the brakes locked. This dog is pivotally secured to the lever sufficiently to en-

able the brakeman to release the brakes by simply pressing or striking thereon with his foot. The lower end of the lever C is connected to the rod E, which latter passes under the car-body, and is secured to the upper end of the short lever F. This lever F is pivoted near its lower end to the center of one of the brake-beams, while the extreme lower end of the said lever is connected to the other brake-beam by the rod G. Thus it will be seen that by pulling the upper end of the lever C toward the car the lower end thereof is forced outwardly away therefrom, and draws the brake-beams toward each other until the shoes thereon clamp or bind the wheels. As the lever is moved the dog thereon moves along the teeth of the U-shaped rack-bar, and locks the lever against movement in the opposite direction. When it is desired to release the brakes, it is simply necessary for the brakeman to strike the dog with his foot, which unlocks the lever C and leaves it free to spring outward to an open position. A powerful leverage is obtained by the arrangement shown and described, which enables the brakes to be set without the expenditure of much power, and in a much shorter space of time than it took heretofore with the old style of brakes. As no chains are employed, a stiff continuous connection is formed between the parts, which prevents any slack and consequent play of the brake-beams, and prevents the brake-shoes from coming in contact with the wheels when the brakes are off.

This device is exceedingly simple in construction, is durable in use, and can be applied to any and all box-cars now in use without altering their structure.

We are aware that it is not broadly new to operate the brakes of a car by a lever pivoted near its lower end to the bottom of the car and connected to the braking mechanism, or by a lever pivoted to the bottom of a car and connected to the braking mechanism by rods, and connected at its upper end, above the car-top, with a weighted chain, and hence we make no broad claim thereto; but,

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

The combination, with suitable brake mechanism, of a lever pivoted near its lower end to the car-body, and connected below said pivoted point to the brake mechanism, a U-  
5 shaped rack-bar secured to the car-body and embracing the lever near its upper end, and a dog pivoted to the lever, all of the above parts combined and adapted to operate as described.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

MARSHALL TURLY.  
REUBEN T. BRYANT.

Witnesses:

E. H. ODELL,  
E. H. DOBBS.