R. BROWN & W. M. GROZE.

Wagon-Brakes.

No. 147,096. Patented Feb. 3, 1874.

Fig. 1

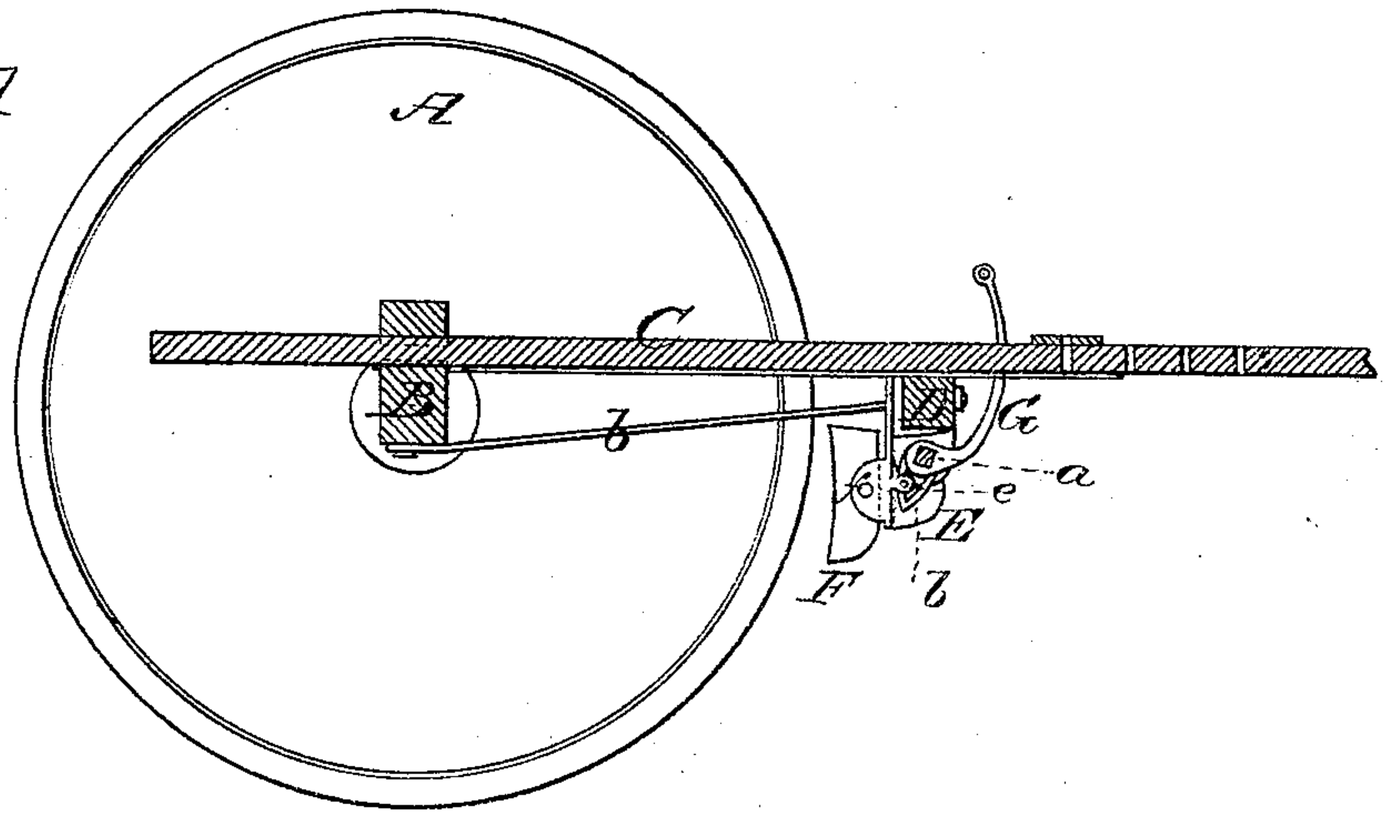
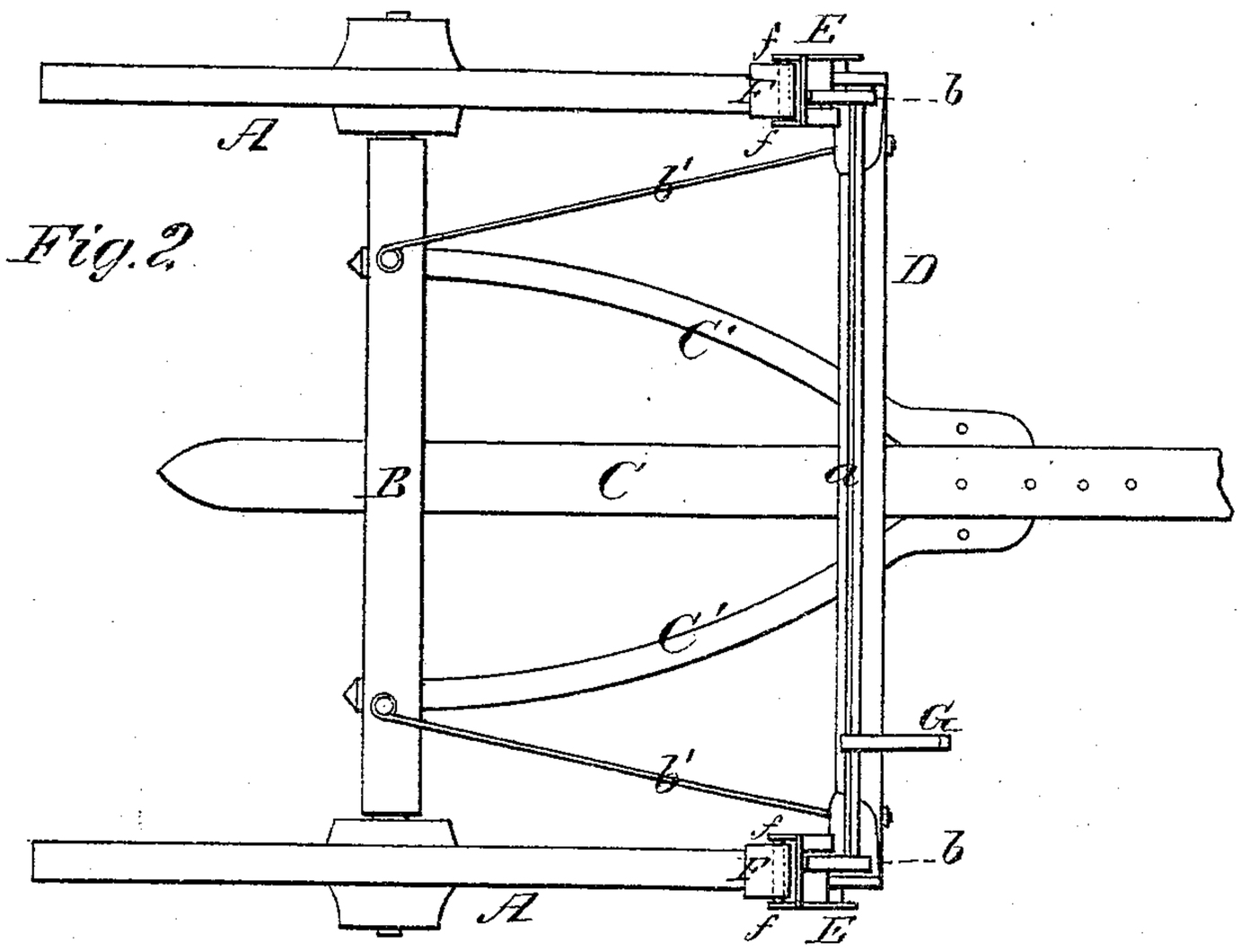
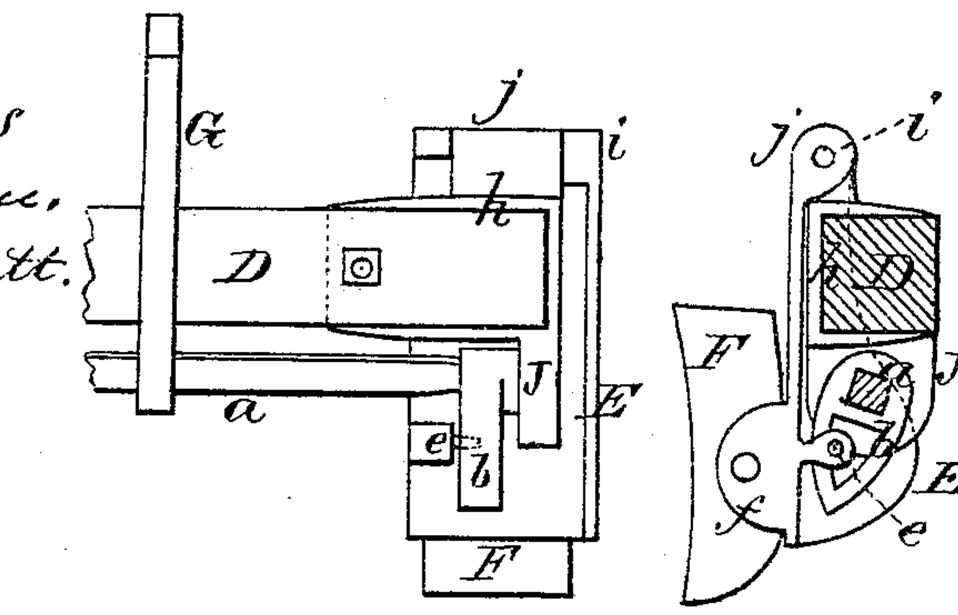


Fig. 2





Witnesses
G. E. Upham,
Robert Everett.

Inventors
Robert Brown,
Wm. M. Groze,
Chipman & Fosmer & Co,
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UNITED STATES PATENT OFFICE.

ROBERT BROWN AND WILLIAM M. GROZE, OF DAYTON, OHIO.

IMPROVEMENT IN WAGON-BRAKES.

Specification forming part of Letters Patent No. **147,096**, dated February 3, 1874; application filed January 3, 1874.

To all whom it may concern:

Be it known that we, ROBERT BROWN and WILLIAM M. GROZE, of Dayton, in the county of Montgomery and State of Ohio, have invented a new and valuable Improvement in Brakes; and we do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a sectional view of our brake. Fig. 2 is a plan view of the same.

This invention has relation to brakes which are designed both for wagons and railroad-cars; and it consists in open cams applied on a rocking bar, which has its bearings in clips on the brake-bar, in combination with lugs or pins, which enter the said cams, and which are applied to hangers to which the brake-blocks are pivoted, as will be hereinafter explained.

The following is a description of our improvement:

In the annexed drawing, A A represent the rear wheels of a wagon; B, the axle; C, the perch, and C′ C′ the rear braces of the perch, which may be of any well-known construction. D designates the brake-bar, which is rigidly secured to the braces C′ C′ beneath the perch. On the ends of the brake-bar D bearings J J are rigidly secured, the clipping portions *h* of which are constructed with hinging eyes *j*, to which hooded hangers E are attached by means of pivots *i*. The brake-bar D is firmly sustained against any pressure which may be brought against it by means of tie-rods *b′ b′*, which pass through said bar, and are secured to the axle B. Beneath the brake-bar D is a rocking bar, *a*, on which a lever, G, and two cams, *b b*, are keyed. The bar *a* is sustained by the bearings J J, and it may be rocked by connecting its lever G to a lever or treadle located conveniently to the driver's seat. F F are the brake-shoes, which are pivoted to ears *f f*, formed on the hangers E E, so that they will accommodate themselves to the peripheries of the wheels. The cams *b b* have openings through them, in which are received lugs or pins *e e*, which are formed on the hangers E E, thus attaching the cams loosely to the hangers.

It will be seen from the above description that the brakes are applied by drawing forward the lever G, which movement forces the cams *b* against the hangers E, and presses the shoes F against the wheels. When the lever G is moved backward, the cams *b*, acting on the lugs or pins *e*, will forcibly withdraw the shoes from the wheels. The cams and the end bearings of the bar *a* are prevented from becoming clogged with ice or mud by means of the hooded hangers E.

What we claim as new, and desire to secure by Letters Patent, is—

The open cams *b b* on rocking bar *a*, in combination with lugs or pins *e*, hooded hinged hanger E, carrying brake-shoes F, and clipping bearings J on brake-bar D, substantially as and for the purposes described.

In testimony that we claim the above we have hereunto subscribed our names in the presence of two witnesses.

ROBERT BROWN.
WILLIAM M. GROZE.

Witnesses:
SUMNER T. SMITH,
D. M. SMITH.