

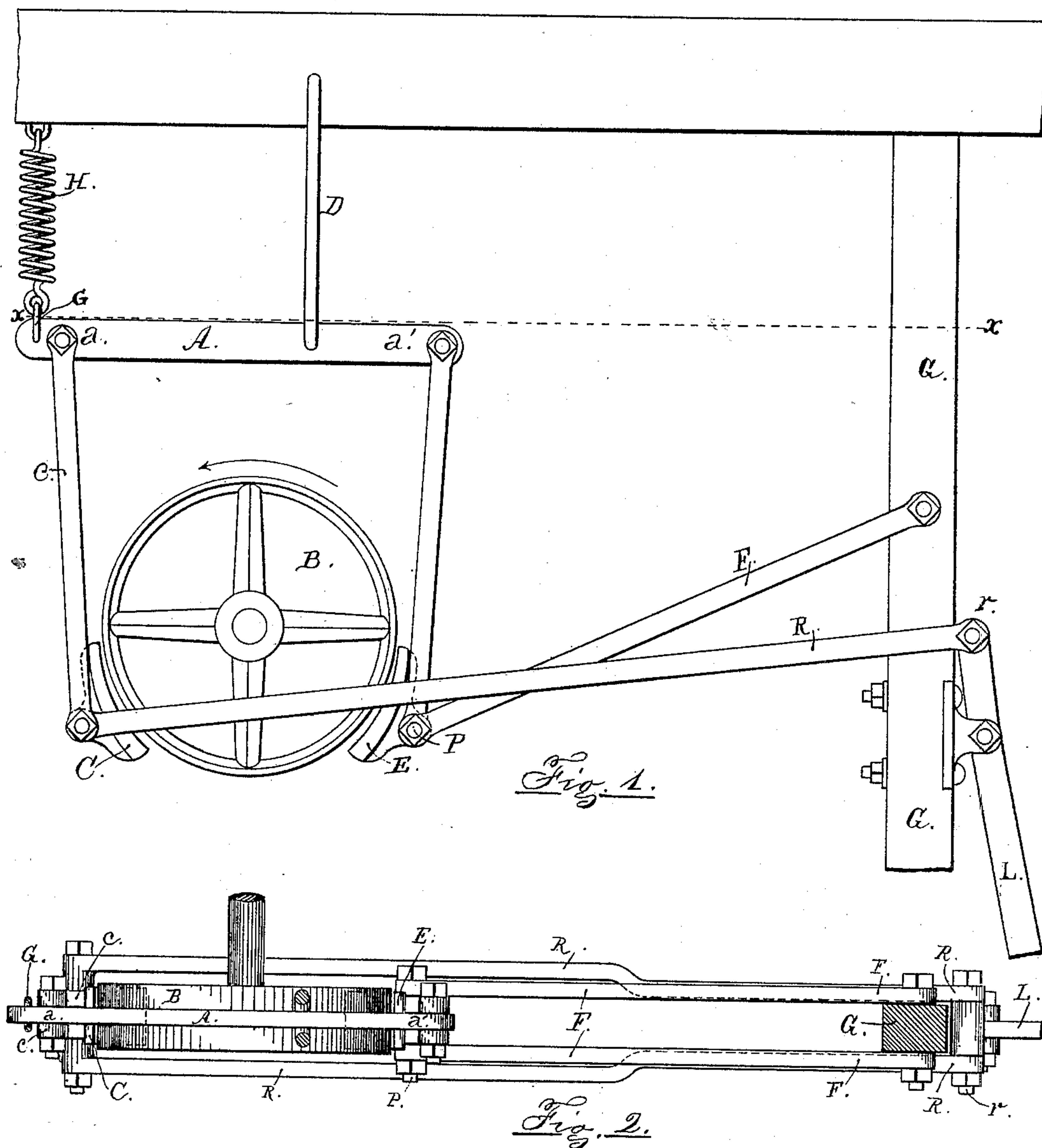
(No Model.)

E. E. SNYDER.

BRAKE

No. 390,316.

Patented Oct. 2, 1888.



Witnesses

David H. Herr.
W. J. Fordney.

Inventor

Elmer Elsworth Snyder

By his Attorney Wm. R. Gorkard

UNITED STATES PATENT OFFICE.

ELMER ELLSWORTH SNYDER, OF LANCASTER, PENNSYLVANIA, ASSIGNOR
OF PART TO BERNARD J. McGRANN, CHARLES V. ROTE, AND EUGENE
G. SMITH, ALL OF SAME PLACE.

BRAKE.

SPECIFICATION forming part of Letters Patent No. 390,316, dated October 2, 1888.

Application filed December 8, 1887. Serial No. 257,287. (No model.)

To all whom it may concern:

Be it known that I, ELMER ELLSWORTH SNYDER, a citizen of the United States, residing in Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain Improvements in Brakes, of which the following is a specification.

The object of my invention is to produce a brake in which the action of the wheel shall itself act as the motive of the force employed.

It consists in the employment of a lever located above the wheel to which the brake is applied. An ordinary shoe is hung to the longer arm of the lever and brought into engagement with the wheel by any suitable means. The short arm of said lever carries a second shoe, which also engages the same wheel, the downward tendency of the first brake engendered by the revolution of the wheel bringing about the action of the second.

In the accompanying drawings, Figure 1 is a side view of my invention as applied to a pulley upon the shaft of any combination of machinery, and Fig. 2 a top view of the same below the line *xx* of Fig. 1.

As this brake can be attached to any and all forms of appliances in which a brake can be used, the illustrations presented are intended simply to show the applicability of the principle of the revolution of the wheel acting as the power by which it shall be checked.

The drawings show the attachment of the device to a shaft connected with any shop machinery.

In the drawings, A represents a lever, supported by the rod D and located above the wheel or pulley B to be acted upon. The longer end, *a*, of the lever carries a shoe, C, connected with it by a hanger, *c*. The shorter end, *a'*, is connected with a shoe, E, upon the oppositeside of the wheel, in a similar manner.

Carrying-bars F support the shoe E, and are pivotally connected therewith by the same pin, P, by which the hanger is attached. This bar is pivoted to the post G. Where more than one wheel B is to be acted, on the rod F may connect with another brake shoe suspended to act on such other wheel as shoe C acts on wheel B.

The spring H serves to uphold the longer end of the lever and overcome any undue pressure resulting from the revolution of the wheel or excessive weight of the attachments of the shoe C.

Rods R, pivoted at *r*, apply the force necessary to bring the shoe C into action, the rods being operated by the hand-lever L.

Operation: Bringing the first shoe, C, into engagement with the wheel B causes a downward movement of that end of the lever, and the other shoe is thereby brought into contact with the wheel with a force in proportion to the relative lengths of the lever-arms.

The arms supporting the shoe E can be located in any position which, in connection with its hanger, will serve to bring it in connection with the wheel.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a wheel or pulley, of the brake-shoes suspended on opposite sides of said wheel and a pivoted support for said brake-shoes, whereby the friction of the wheel upon one brake-shoe is made to assist in drawing the opposing brake-shoe into action, substantially as described.

2. The combination of the wheel, the opposing brake-shoes operating thereon, and the pivoted bar or lever from which said brake-shoes are suspended and through which they are connected for joint operation, substantially as described.

3. The combination of the wheel B, the pivoted bar or lever A, the brake-shoes C and E, pivotally suspended from said lever, and the pivoted rod or brace F, operating substantially as described.

4. The combination of the wheel, the pivoted brake-supporting bar or lever, the opposing brake-shoes pivotally suspended from said lever, the pivoted rod or brace F, and means, substantially as described, for throwing one of the brake-shoes into frictional engagement with the wheel, and thereby operating the lever and rod or brace to force the opposing brake-shoe into engagement with said wheel, substantially as described.

5 5. The combination, with the wheel B, of the pivoted bar or lever A, the brake-shoes pivotally suspended from said lever on opposite sides of the wheel, the spring operating on said lever to release the brakes and hold them out of engagement with the wheel, and the pivoted rod or brace connected to one of said

brake-shoes, and operating substantially as described.

ELMER ELLSWORTH SNYDER.

Witnesses:

W. J. FORDNEY,
WM. R. GERHART.