

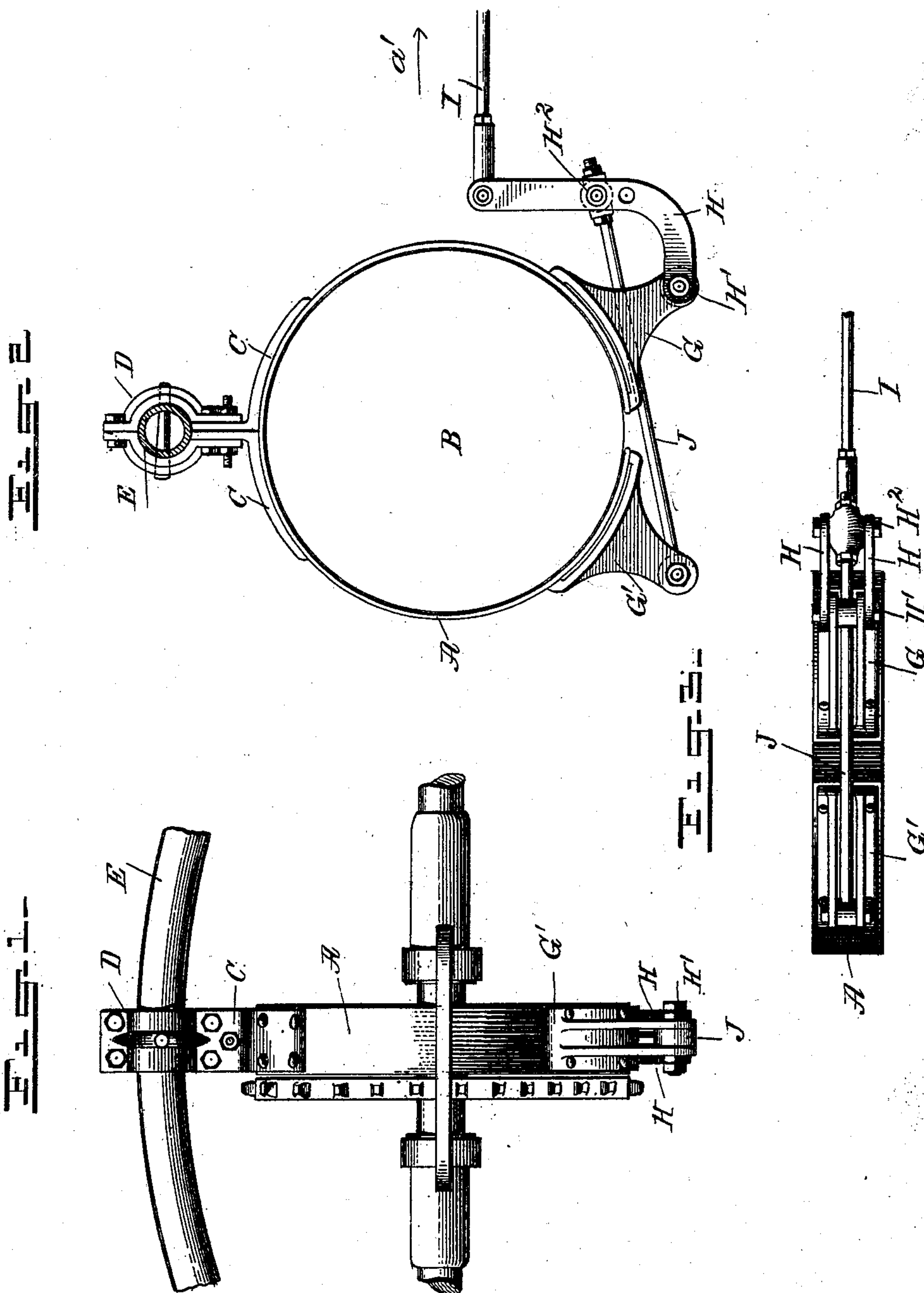
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Patented Jan. 7, 1902.

T. G. BLATCH.  
BRAKE.

(Application filed July 30, 1901.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## BRAKE.

SPECIFICATION forming part of Letters Patent No. 690,692, dated January 7, 1902.

Application filed July 30, 1901. Serial No. 70,235. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS GOATER BLATCH, a citizen of the United States, and a resident of Hazleton, in the county of Luzerne and State of Pennsylvania, have invented a new and Improved Brake, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved brake which is simple and durable in construction, very effective in operation, and more especially designed for use on locomobiles, mobile carriages, and other vehicles.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of the improvement as applied to a motor-carriage. Fig. 2 is a side elevation of the same, and Fig. 3 is an inverted plan view of the improvement.

A brake-band A of steel or other suitable material and encircling the brake-wheel B of the motor or other driven part is attached at its middle by brackets C to a clamp D, pivoted or fastened on a part E of the carriage. On the free ends of the brake-band A are secured brackets G G', of which the bracket G is pivotally connected at H' with one end of a lever H, connected by a link I with an operating-lever (not shown) and under the control of the operator. The lever H is L-shaped and is pivotally connected at H<sup>2</sup> with a link J, pivoted to the bracket G' above mentioned.

Normally the parts are in the position indicated in the drawings, the brake-band A being out of frictional contact with the brake-wheel; but when it is desired to apply the brake the operator exerts a pull on the link I in the direction of the arrow *a'*, so that the lever H moves the bracket G toward the bracket G' and the latter is drawn by the link J toward the bracket G, so that the entire brake-band is drawn in firm frictional contact with the brake-wheel B to brake the same, the braking force corresponding to the

pull exerted on the lever H by the link I and the actuating-lever. It is obvious that when the lever is caused to swing as described the pivot H<sup>2</sup> of the link J is the fulcrum for the said lever to swing on, and as the pull on the link I is in the direction of the arrow *a'* the lever H exerts a pull on the link J and bracket G', the lever then swinging on the pivot H' as the fulcrum to draw this end of the brake-band A in engagement with the wheel B and toward the other end of the brake-band already in contact with the wheel.

It is understood that by the arrangement described the free ends of the brake-band A are simultaneously drawn toward each other when the lever H is actuated for applying the brakes, so that the brake-wheel is firmly gripped and a proper braking takes place. Upon releasing the pull on the link I the brake-band A immediately opens, as the return swinging of the lever H causes the brackets G G' to move from each other, so that the brake-band moves out of frictional contact with the brake-wheel B.

The device is very simple and durable in construction and can be readily applied to any brake-wheel, and owing to its simplicity it is not liable to easily get out of order.

The brackets G G' extend radially outwardly from the ends of the brake-band A, so as to draw the latter with great force in contact with the brake-wheel when the lever H is actuated. The brackets G G' not only tend to draw the ends of the brake-band toward each other, but also press the ends of the brake-band in a direction toward the center of the brake-wheel.

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

1. A brake, comprising a brake-band suspended by its middle, provided with loose ends and bent into a substantially cylindrical form, radially-disposed brackets provided with arc-shaped bases and mounted upon said free ends, a lever provided with a bent portion pivoted directly upon the extreme outer end of one of said brackets, and a link pivoted upon the extreme outer end of the other bracket and upon the said lever, the arrangement being such that in applying the



brake the link and the bent portion of said lever move toward each other and toward a common dead-center.

2. A brake, comprising a brake-band suspended by its middle, provided with loose ends and bent into a substantially cylindrical form, radially-disposed brackets provided with arc-shaped bases and mounted upon said free ends, a lever pivoted upon one of said brackets at a point substantially in line with the center of the base thereof and with the center of the brake-band, a link pivoted at one end to said lever and at the other end to the other bracket, at a point substantially in line with the center of the base of said bracket, and the geometrical center of said brake-band.

3. A brake, comprising a brake-band suspended by its middle, provided with loose ends and bent into a substantially cylindrical form, brackets comprising radially-disposed stems mounted centrally upon arc-shaped bases, said bases being secured to the ends of said brake-band, a lever provided with a bent arm, said arm being pivoted upon the extreme outer end of one of the stems, at a point radially in line with the center of one of said arc-shaped bases and the center of said brake-band, and a link pivoted at one end to said lever and at the other end to the

extreme outer end of the other stem, at a point radially in line with the center of the arc-shaped base thereof and the geometrical center of said brake-band, the arrangement being such that said link and the bent portion of said lever move to and from the line constituting a mutual dead-center.

4. A brake-band suspended by its middle, provided with loose ends and bent into a substantially cylindrical form, radially-disposed brackets mounted upon said loose ends, a substantially L-shaped lever pivoted at one of its ends upon the extreme outer end of one of said brackets and also pivoted to said lever intermediate of the ends thereof, and a rod pivotally connected with the other end of the said lever for the purpose of actuating said brake, the arrangement being such that the outer ends of said brackets are drawn toward each other by a progressive leverage due to the tendency of the pivots of the lever to align with the pivots of the said brackets.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

THOMAS GOATER BLATCH.

Witnesses:

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