

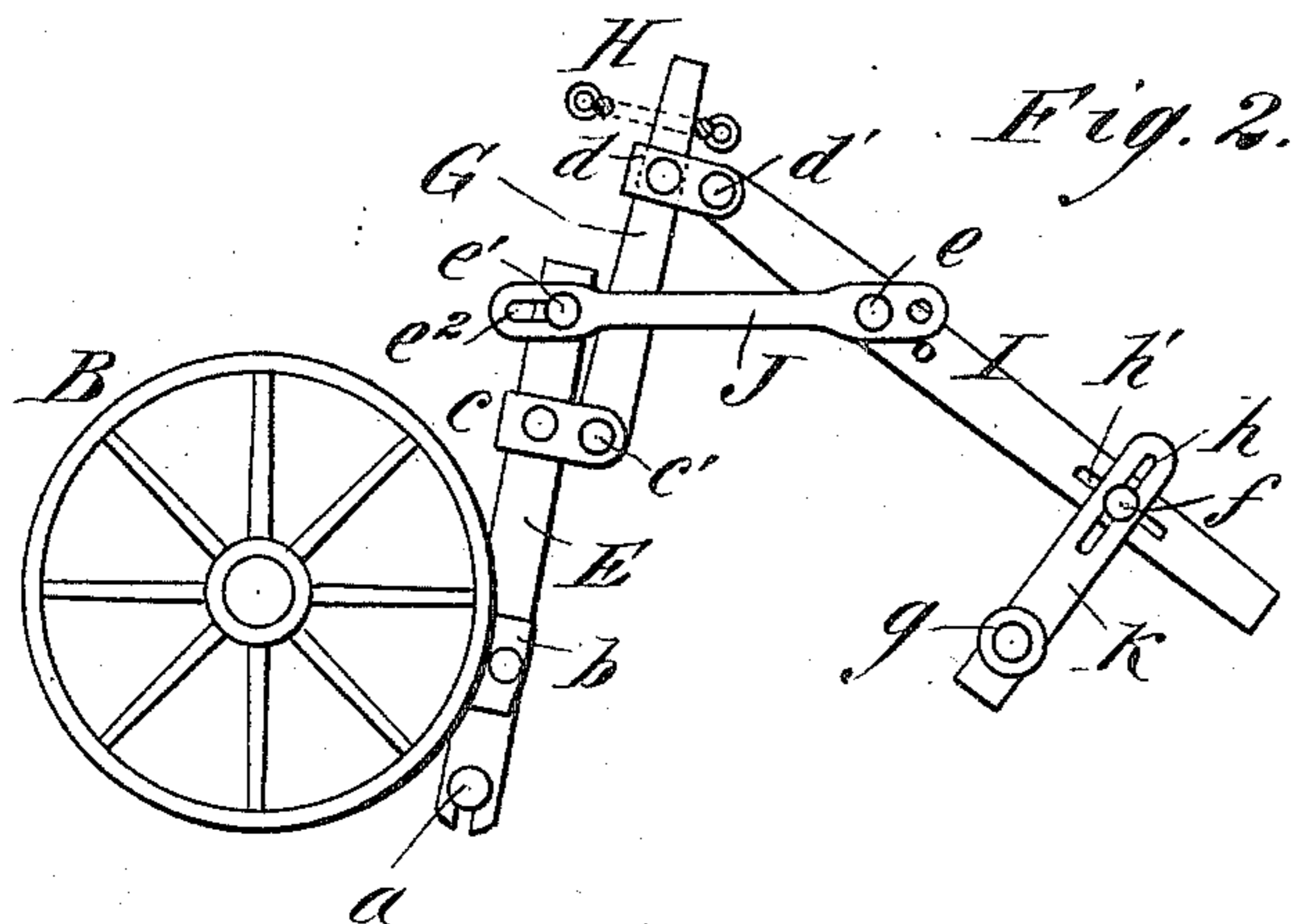
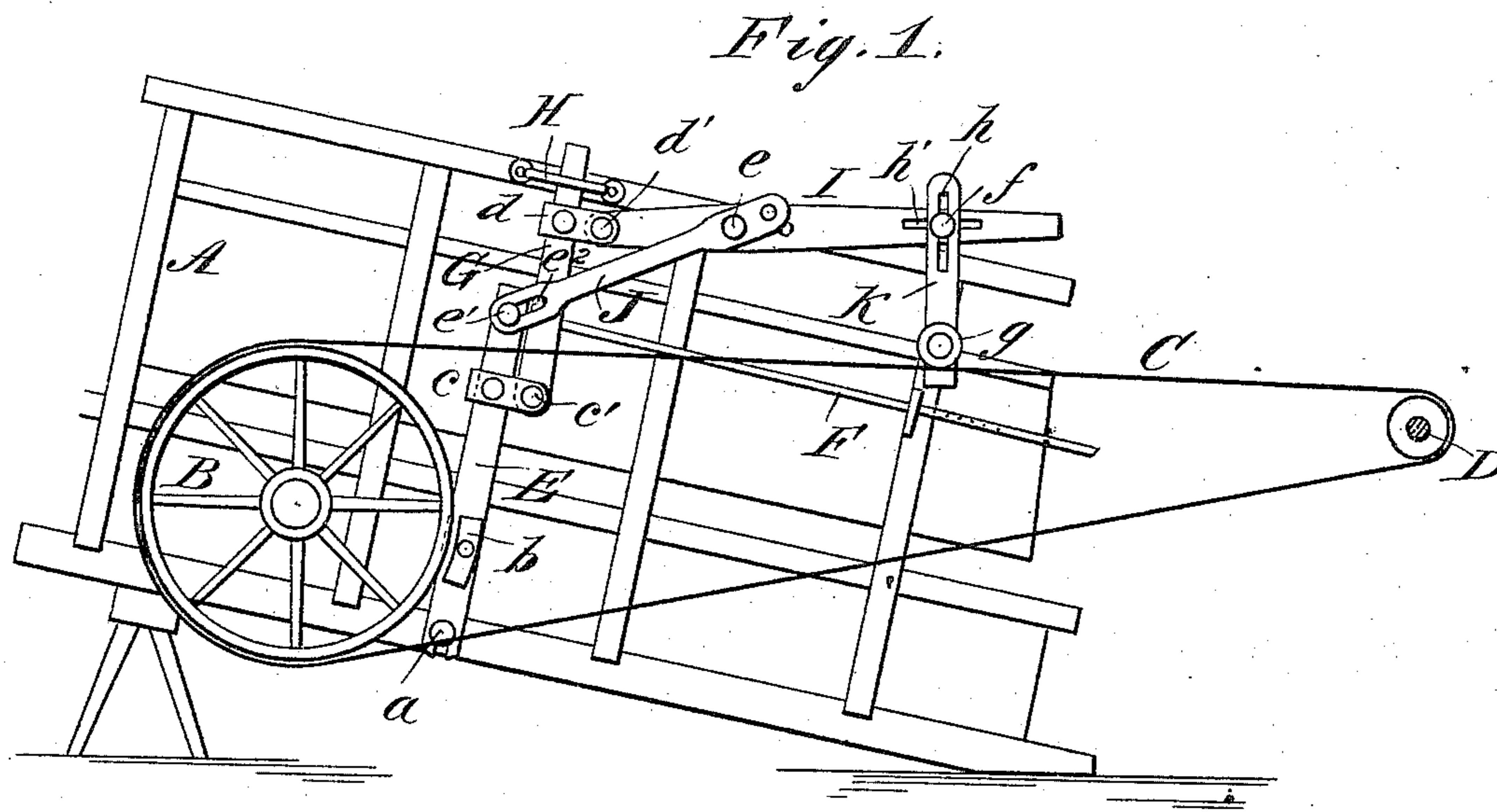
(No Model.)

W. L. REMINGTON.

AUTOMATIC SAFETY BRAKE FOR HORSE POWERS.

No. 305,759.

Patented Sept. 30, 1884.



WITNESSES:

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WILLIAM L. REMINGTON, OF MERIDEN, CONNECTICUT.

AUTOMATIC SAFETY-BRAKE FOR HORSE-POWERS.

SPECIFICATION forming part of Letters Patent No. 305,759, dated September 30, 1884.

Application filed February 14, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. REMINGTON, of Meriden, in the county of New Haven and State of Connecticut, have invented a new and Improved Automatic Safety-Brake for Horse-Powers, of which the following is a full, clear, and exact description.

The object of this invention is to provide effective and reliable means for automatically applying the brake to the band-wheel of horse-powers in case the belt should break or accidentally run off from the band-wheel or pulley, thus preventing all danger of injury to the horses or power that might result from thus relieving the horse-power of the resistance of the machine to which the horse-power is attached; and the invention consists, principally, of a system of levers applied to the ordinary brake-lever in such manner that a downward movement of the main horizontal lever of the system will shove forward the brake-lever and apply the brake.

The invention also consists of the construction, arrangement, and combination of parts, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a side elevation of a horse-power having my invention applied thereto, the parts being in position ready to act in case the main belt should run off or break; and Fig. 2 is a side elevation of the band-wheel and brake, the parts being shown in the position they assume for automatically applying the brake.

A represents the horse-power; B, the band-wheel thereof; C, the belt passing over the band-wheel B and pulley D of the machine to be operated by the horse-power, and E represents the ordinary brake lever or bar, which is pivoted at *a* and provided with the brake-shoe *b*, which is arranged to come against the periphery of the band-wheel B when the upper end of the lever E is pressed toward the said band-wheel B.

F is the bar by which the brake-lever E may be operated in the ordinary way.

Attached to the main brake lever or bar E by the plate *e* and pivot *e'* is the upright bar or lever G, the upper end of which is confined

in place and limited in its movement by the bent keeper H, attached to the side of the horse-power.

Attached to lever or bar G by the plate *d* and pivot *d'* is the main horizontal lever I. This is connected back of the pivot *d'* to the upper end of the brake-lever E by the connecting rod or plate J and pins *e* and *e'*, the latter passing through the slot *e''* made in the connecting-plate F, so as to form a sliding connection of the plate J with the lever E, as will be understood from the drawings.

To the outer end of the lever I is attached, by the bolt *f*, the arm K, which carries the pulley *g* at its lower end, that is adapted to rest upon the belt C when the belt is in place, as shown in Fig. 1, and the bolt *f* passes through the slot *h* made in the upper end of the arm K, and also through the slot *h'* made in the horizontal lever I, so that by means of these slots the arm K is adapted to be adjusted both vertically and horizontally, as circumstances require.

When the horses are placed upon the horse-power and the belt C is in place on band-wheel B and pulley D, the outer end of the lever I will be lifted and the pulley *g* placed upon the belt C, which will hold the lever I in elevated position, where the connecting rod or plate J will hold the brake-lever E and brake-shoe *b* drawn backward away from the band-wheel B, as shown in Fig. 1.

When all is running right, if it is desired to stop the machine the brake-shoe *b* will be applied to the band-wheel B in the ordinary manner by pressing forward upon the bar F; but in case the belt C should break or run off from the band-wheel B and pulley D, the lever I will be left unsupported and will drop of its own weight and that of the arms J K and pulley *g* to the position shown in Fig. 2, which will first draw the bar or lever G backward as far as the keeper H will permit, and then, through connecting rod or plate J, will force the upper end of the brake-lever E forward, and thus automatically apply the brake-shoe *b* to the band-wheel B and retard and finally stop the motion of the horse-power, thus avoiding all danger of injury to the horses and horse-power, which might occur if the power were permitted to run without resistance.

Having thus fully described my invention, I

claim as new and desire to secure by Letters Patent—

1. The combination, with the driving-belt and the brake-lever acting upon the wheel or pulley of the power-transmitting mechanism, of a second lever, I, pivotally jointed to a third lever, G, connected to the brake-lever, said lever I having means resting upon the driving-belt, substantially as and for the purpose set forth.

2. The combination, with the driving-belt

and the brake-lever acting upon the wheel or pulley of the power-transmitting mechanism, of the lever I, pivotally jointed to the lever G, connected to the brake-lever and having a bar with a pulley resting on said belt, and the lever J, connected to the levers E I, substantially as and for the purpose set forth.

WILLIAM L. REMINGTON.

Witnesses:

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