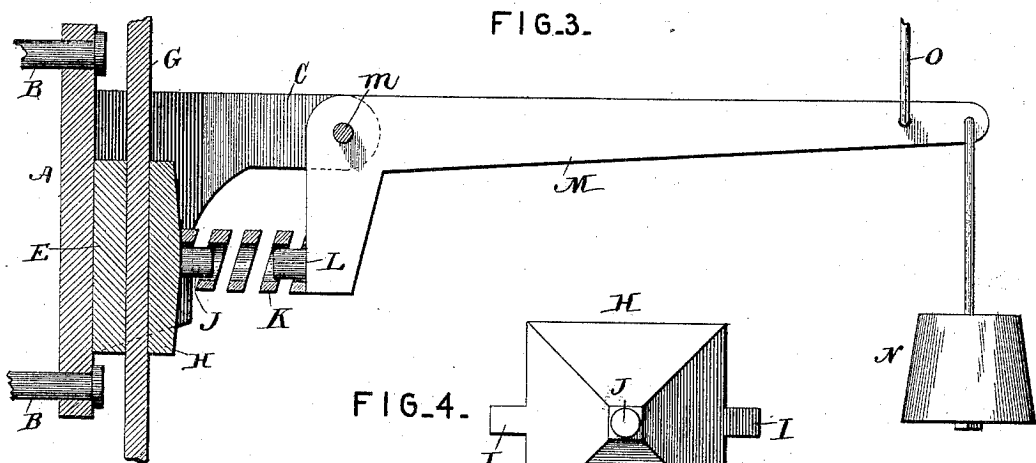
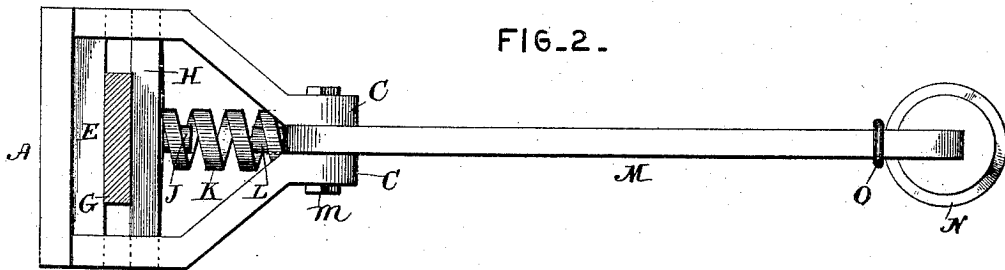
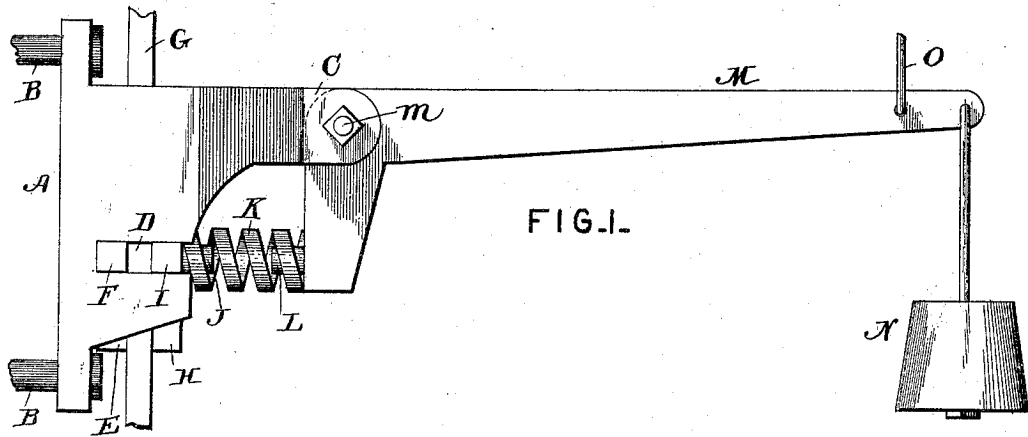


(No Model.)

J. R. WILSON.
AUTOMATIC BRAKE.

No. 487,412.

Patented Dec. 6, 1892.



Witnesses

Jas. H. McLaughlin
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Inventor

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UNITED STATES PATENT OFFICE.

JOHN R. WILSON, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF
TO NATHAN P. HYNDMAN, OF SAME PLACE.

AUTOMATIC BRAKE.

SPECIFICATION forming part of Letters Patent No. 487,412, dated December 6, 1892.

Application filed July 13, 1892. Serial No. 439,910. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. WILSON, a citizen of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Automatic Brake, of which the following is a specification.

This invention relates to automatic brakes; and it has for its object to provide an improved automatic spring-brake which is particularly adapted for use as a brake in dumping apparatus employing tilting devices such as illustrated in my former patent, No. 475,049, and one which can be used in connection with any apparatus employing a sliding brake or friction bar connected to the apparatus to be braked.

To this end the invention contemplates the provision of a simple and effective automatic spring-brake of this character.

With these and many other objects in view, which will readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination, and arrangement of parts hereinafter more fully described, illustrated, and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a brake constructed in accordance with this invention. Fig. 2 is a top plan view thereof. Fig. 3 is a vertical longitudinal sectional view of the same. Fig. 4 is a detail elevation of the brake-shoe.

Referring to the accompanying drawings, A represents the brake frame or casting, adapted to be bolted by the bolts B to a suitable timber or the frame of the apparatus in connection with which the brake is employed, and said open frame or casting is provided with the forwardly-extending arms C and the opposite side slots D in the sides thereof below the plane of said arms. A removable rectangular stationary brake-plate E is adapted to be removably mounted within the frame or casting A upon the opposite integral supporting-lugs F, projecting from opposite sides thereof and fitting in the opposite side slots D of said frame or casting.

The brake herein described, as already stated, is so arranged that the sliding friction or brake bar G, which is connected to the movable apparatus to be braked, works against

one face of the stationary brake-plate E, and is pressed sufficiently tight against the same to hold it in any fixed position by means of the opposing spring-actuated sliding brake-shoe H. The said brake-shoe H is preferably rectangular in shape and is provided with the opposite supporting-lugs I, adapted to move in the opposite side slots D of said frame or casting, and said spring-actuated brake-shoe is further provided on the opposite face thereof with the projecting teat J. The teat J receives one end of the spiral spring K, the other end of which is mounted over the supporting-teat L, projecting inwardly from the depending arm of the weighted bell-crank lever M. The said bell-crank lever M is pivoted at its angle at *m* between the forwardly-extending arms C of the frame or casting, and has connected to the extreme outer end thereof the suspended weight N, which tends to normally compress the spring K against the movable brake-shoe H, and thereby always provide a sufficient friction or pressure to hold the friction or brake-bar G at any point when the weighted end of the lever is not lifted. A lifting link or clevis O is connected to the weighted end of the bell-crank lever and is connected with any suitable device—such as a hand-lever—to lift said weighted end of the bell-crank in order to allow the friction or brake bar to pass between the brake-plate and brake-shoe, which may be necessary.

It is thought that the operation, the adaptation, and many advantages of the herein-described brake are apparent without further description.

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

1. In an automatic brake, the frame or casting, a stationary flat brake-plate removably supported within said frame and resting against the inner wall thereof, and a correspondingly-shaped opposing freely movable or sliding combined spring and weight actuated brake-shoe mounted to slide in said frame in a direct line with said stationary brake-plate and adapted to normally bear against one side of an intermediate brake or friction bar, substantially as set forth.

2. In a brake, the open frame having opposite side slots, a stationary brake-plate having opposite supporting-lugs removably resting in said side slots, the movable friction or
 5 brake bar adapted to work in front of said brake-plate, and an opposing spring-actuated brake-shoe having side lugs moving in said side slots, substantially as set forth.

3. In a brake, the open frame, a stationary
 10 brake-plate removably mounted in said frame, an opposing spring-actuated brake-shoe mounted to slide within said frame opposite the brake-plate, a spring arranged against one face of said brake-shoe, and a weighted
 15 lever pivotally connected to said frame and bearing against the other end of said spring, substantially as set forth.

4. In an automatic brake, the combination

of a frame or casting having forwardly-extending arms and side slots below said arms, 20 a stationary brake-plate having side lugs mounted in said slots, an opposing brake-shoe having similar side lugs mounted to slide in said slots, a weighted bell-crank lever pivoted between said forwardly-extending arms and 25 having one arm thereof project below the same, and a spring arranged between said brake-shoe and the projecting arm of said lever, substantially as set forth.

In testimony that I claim the foregoing as 30 my own I have hereto affixed my signature in the presence of two witnesses.

JNO. R. WILSON.

Witnesses:

N. P. HYNDMAN,
 W. M. DALYLIESH.