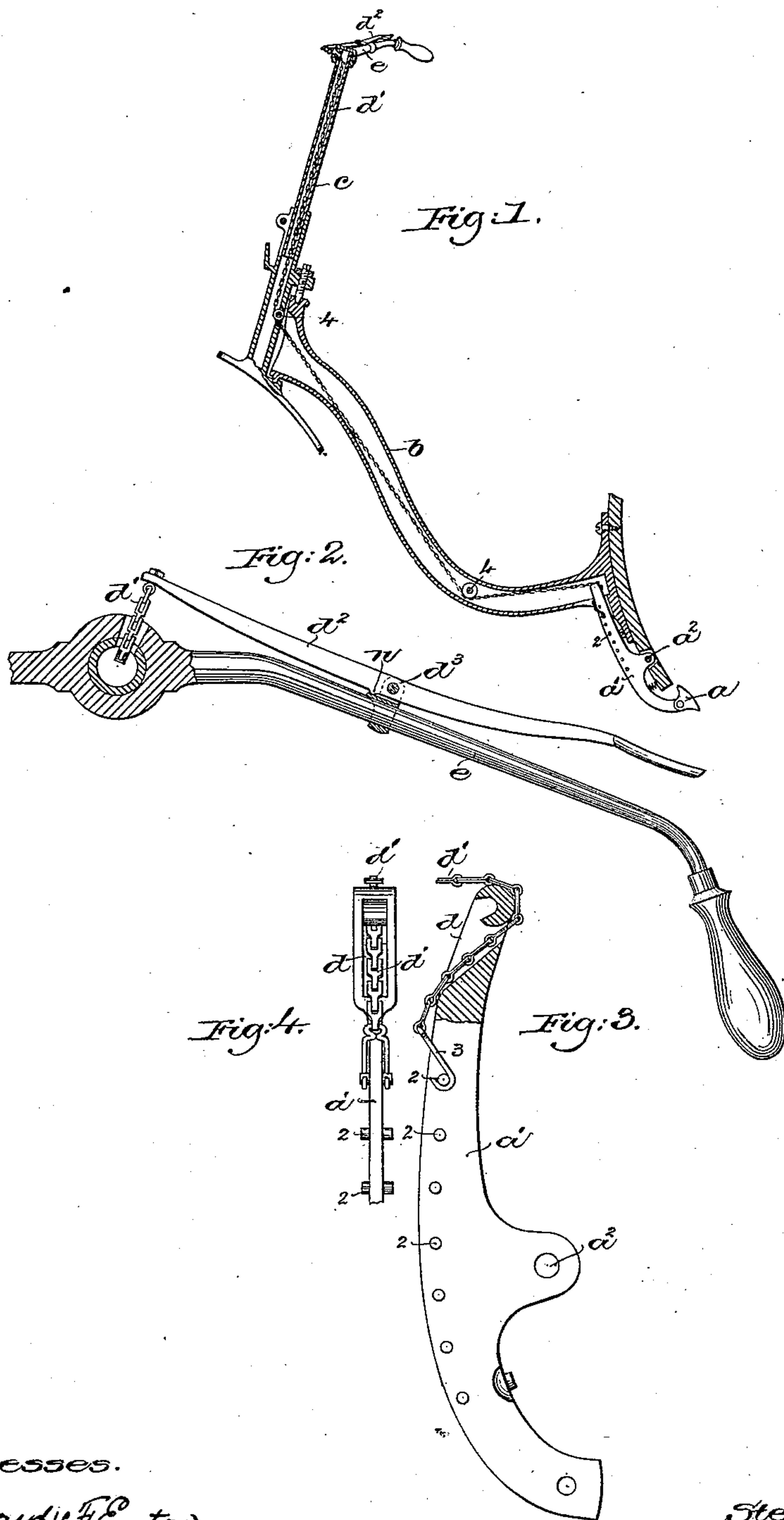


(No Model.)

S. ELLIOTT.  
BRAKE FOR VELOCIPEDES.

No. 428,383.

Patented May 20, 1890.



Witnesses.

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# UNITED STATES PATENT OFFICE.

STERLING ELLIOTT, OF NEWTON, ASSIGNOR OF ONE-HALF TO THE OVERMAN  
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## BRAKE FOR VELOCIPEDES.

SPECIFICATION forming part of Letters Patent No. 428,383, dated May 20, 1890.

Application filed July 29, 1889. Serial No. 319,071. (No model.)

*To all whom it may concern:*

Be it known that I, STERLING ELLIOTT, of Newton, county of Middlesex, State of Massachusetts, have invented an Improvement in Velocipede-Brakes, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to construct a simple, durable, and reliable brake for velocipedes which will not rattle when the machine is moving.

My invention consists in a combination with the brake-train of a spring located at one end of the train and a seat located at the other end thereof and forming a point of purchase for the spring for holding the train under tension and against rattling. A device—preferably an operating-lever—is arranged at one end of the brake-train, by which it is moved, and a brake-shoe is located at the other end of the train. The brake-train is also preferably made longitudinally adjustable.

Figure 1 shows in section a portion of a velocipede having a brake embodying my invention; Fig. 2, a plan view of a portion of the steering-handle having pivoted to it an operating lever or device for the brake; Figs. 3 and 4, side and edge views of the brake-shoe-car-  
rying lever on an enlarged scale.

As herein shown, the brake-shoe  $a$  is loosely connected to the lever  $a'$ , pivoted at  $a^2$  to the frame-work of the machine, said brake-shoe being adapted to operate on the rim of the driving-wheel, which in this instance is the rear wheel. The frame  $b$  is made tubular, and so also the steering-bar  $c$ , and the lever  $a'$  has arranged on it at one or both sides a series of pins 2, one or another of which are engaged by hooks 3, attached to a chain  $d$ , which passes through a hole  $d'$  at the upper end of the lever, thence through the tubular frame  $b$ , over pulleys 4, said chain bearing against the inner sides of the frame. The upper end of the chain is connected to one end of the lever  $d^2$ , pivoted at  $d^3$  to a clip or frame on the handle-bar  $e$ . The lever  $d^2$  constitutes the operating lever or device by which the chain is drawn and the brake-shoe applied. The chain made up of links constitutes the brake-train, by

which means power is transmitted from the operating-lever to the brake-shoe. A projection or seat  $n$  is formed on the operating-lever  $d^2$ , which serves as a stop, rest, or abutment for the lever, and a spring is arranged at the other end of the brake-train, (herein shown as bearing against the brake-lever  $a'$ ), the tendency of the spring being to draw the brake-train taut against the seat  $n$  as a point of purchase, to thereby take up any slack or play in the train, preventing it from rattling. The train is adjusted by engaging the hooks 3 with different pins on the lever  $a'$ .

To operate the brake, the lever  $d^2$  is moved on its pivot.

I do not desire to limit my invention to the particular form or construction of brake-train shown nor to which end of the train I apply the spring or seat, and it is obvious that any other connecting mechanism or device having a spring at one end and a stop or seat at the other end will fulfill the requirements of this invention and thereby come within its scope.

I claim—

1. In a velocipede, the combination, with a brake-train comprising a connected series of parts, of a spring located at one end of the train and a seat located at the other end thereof and forming a point of purchase for the spring in holding the train under tension and against rattling, substantially as described.

2. In a velocipede, the combination, with a longitudinally-adjustable brake-train comprising a series of connected parts, of a spring located at one end of the train and a seat located at the other end thereof and forming a point of purchase for the spring in holding the train under tension and against rattling, substantially as described.

3. In a velocipede, the combination, with a brake-shoe and operating lever or device and a connected train or mechanism, of a spring located at one end of the connected parts and a seat located at the other end thereof and forming a point of purchase for the spring for holding the connected parts against rattling, substantially as described.

4. In a velocipede, the combination, with the brake-lever carrying the brake-shoe, of a brake-chain adjustably connected with the



said lever, and an operating-lever, substantially as described.

5 5. In a velocipede, the combination, with the brake-shoe, operating-lever, and brake-chain, of a bent tubular frame containing the brake-chain and pulleys over which said chain passes and which holds the chain in contact with the inner side wall of the frame, substantially as described.

10 6. In a velocipede, the pivoted brake-lever and brake-shoe carried by it, and spring for the brake-lever, combined with a brake-chain and operating-lever and stop or seat for said operating-lever, substantially as described.

15 7. In a rear-driving front-steering bicycle,

the combination, with a brake-shoe placed for engagement with the driving-wheel, a series of connected parts, and an operating-lever, of a spring at one end of the brake-train thus formed and a seat at the opposite end of the train, which forms a point of purchase for the spring which holds the train under tension and against rattling, substantially as described.

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

STERLING ELLIOTT.

Witnesses:

BERNICE J. NOYES,  
HOWARD F. EATON.