

(No Model.)

G. N. SCEETS.

BRAKE SHOE.

No. 298,897.

Patented May 20, 1884.

FIG. 1.

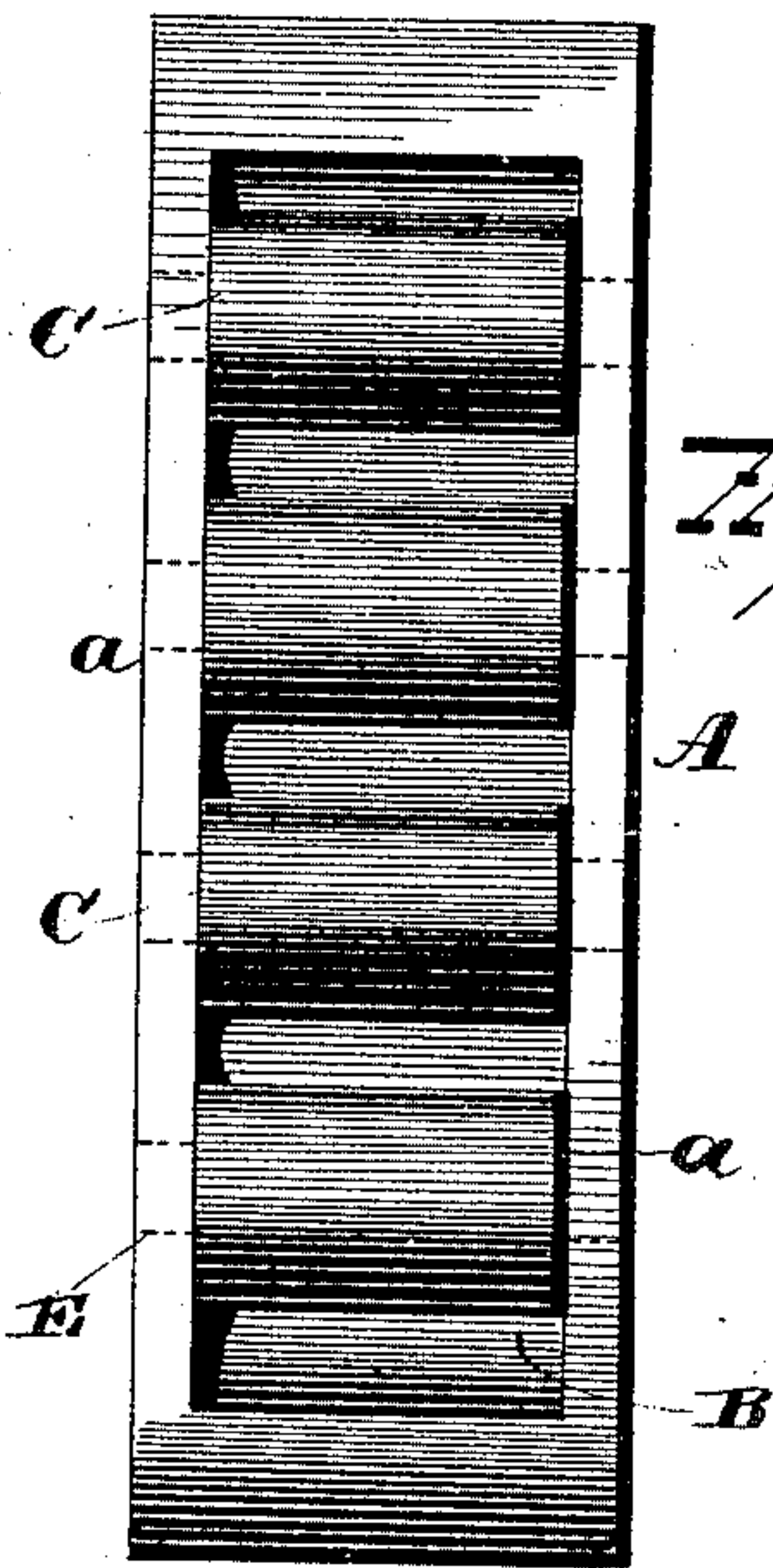
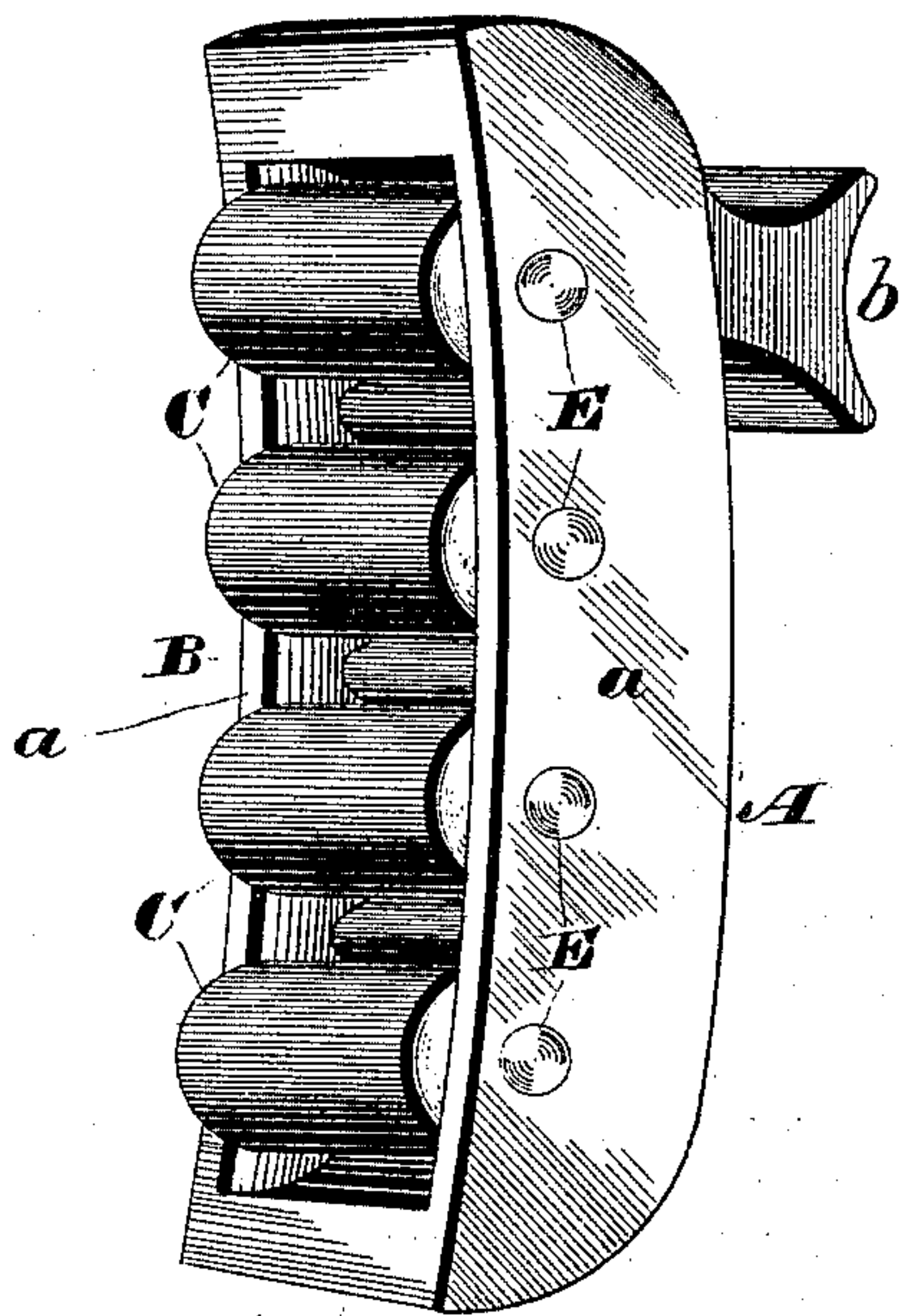
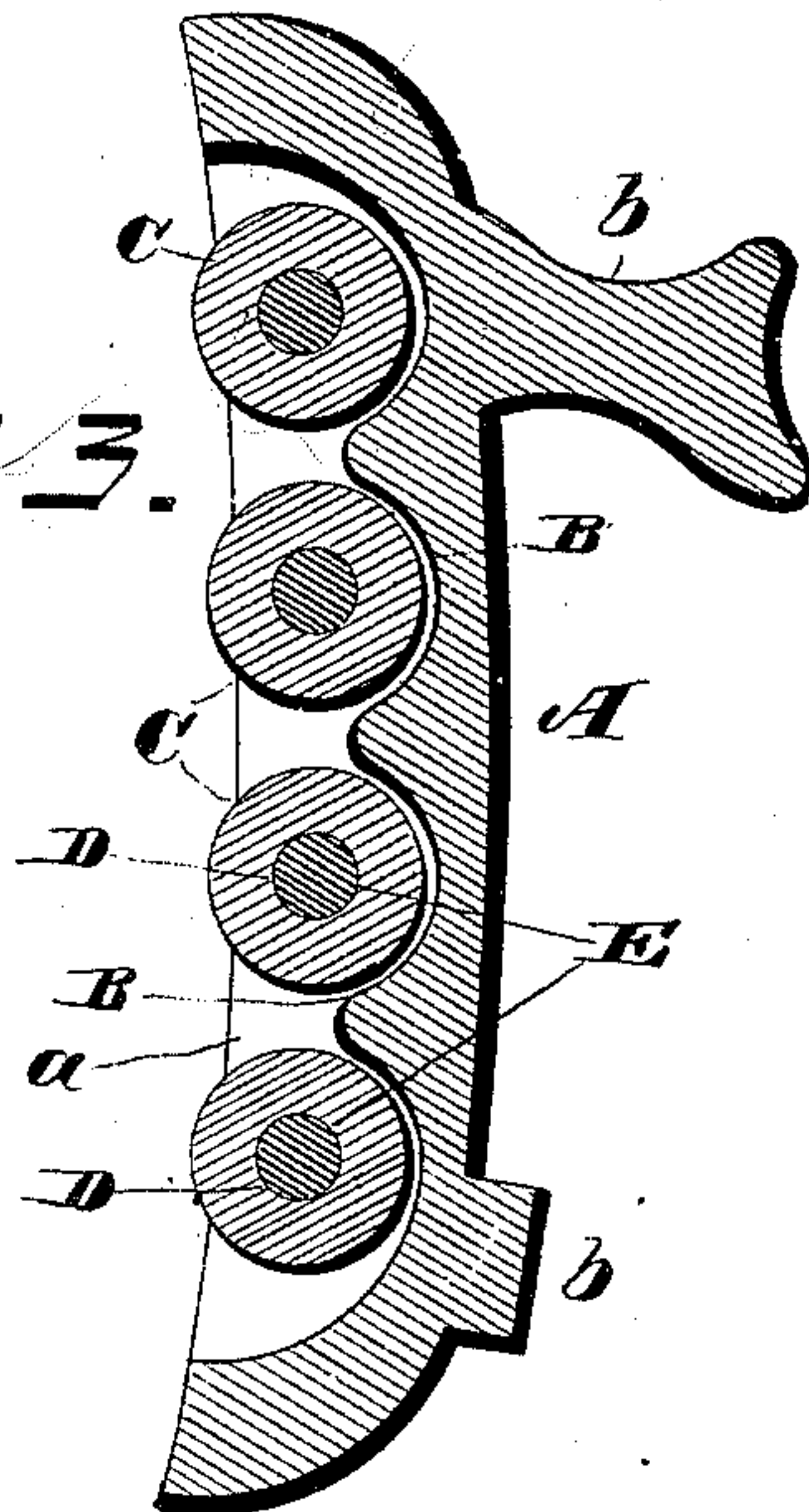


FIG. 2.

FIG. 3.



WITNESSES

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GEORGE N. SCEETS, OF EVANSVILLE, INDIANA.

BRAKE-SHOE.

SPECIFICATION forming part of Letters Patent No. 298,897, dated May 20, 1884.

Application filed February 23, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE N. SCEETS, of Evansville, in the county of Vanderburg and State of Indiana, have invented certain new and useful Improvements in Brake-Shoes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in brake-shoes, the object being to provide a device of this character which shall be adapted when set to prevent all slipping of the wheels on the rails of the track and prevent uneven wear. A further object is to so construct the shoe that when applied to the wheels all jolting or jumping of the cars caused by applying the shoe to the wheels will be overcome. A further object is to provide a brake-shoe which shall be simple and economical in construction, and at the same time durable and efficient in use; and with these ends in view my invention consists in certain novel features of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of my improved brake-shoe. Fig. 2 is a view in front elevation thereof, and Fig. 3 is a longitudinal sectional view.

A represents the body of the shoe, cast in one piece and slightly curved in the direction of its length, to conform to the contour of the wheel, the upper convex surface being provided with the lugs *b*, by means of which the shoe is secured to the brake-beam. This body portion may be made of any desired metal, and is formed with transverse cavities B on its inner concave surface, in which are journaled the rollers C, the size and number of the cavities depending entirely upon the size and number of the rollers employed. Instead, however, of providing the inner concave face with cavities, the body may be hollowed out from end to end, the body in this form serving its function with good results. The rollers C are made of any desired metal, but preferably of hardened steel, and are formed with a central bore, D, adapted to receive the axles

or arbors E, the opposite ends of which latter are rigidly secured to or in the opposite side walls, *a*, of the body A. The rollers C project slightly beyond the sides of the shoe or body A, and are adapted to bear directly against the rims of the wheels. The rollers are first placed in position within the cavities formed in the shoe or body, and secured therein by means of the arbors or axles E, and on which the rollers are allowed to turn. When the brakes are applied, the friction-rollers C bear against the periphery of the wheel with sufficient force to create friction enough to retard the motion of the wheels without stopping them suddenly. By forming the cavities in the shoe, a roller, in case its axle should break or wear out, would fall back within the cavity, and thus be kept separate and out of contact with the adjacent rollers, and thereby be prevented from interfering with or retarding the rotation thereof.

If desired, instead of providing a shoe for the reception of the rollers, the brake-head may be provided with a series of cavities, and thus lessening the expense of the device.

By the rotation of the rollers the wheels are allowed to revolve slowly over the rails instead of sliding thereon, as is often the case when flat brake-shoes are employed. Again, all jolting or jarring of the car caused by applying the shoes to the wheels and stopping the rotation thereof is avoided, as the rollers C allow the wheels to be gradually stopped.

I am aware that it is not broadly new to provide a brake-shoe with a series of cavities therein, and a series of rollers placed in the cavities, and held therein by a removable side wall, the openings in the face of the shoe being smaller than the diameter of the rollers. As the rollers in this device move in direct contact with the shoe, the shoe is soon worn away, and the rollers are liable at any time to become wedged, while in my device the wear falls on the axles of the rollers, which can be replaced at a trifling cost.

My invention is exceedingly simple in construction, is durable in use, is safe and reliable, and can be manufactured at a small initial cost.

Having fully described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the body or shoe having a recessed front face, of a series of
5 friction-rollers set into said recessed face, and adapted to simultaneously bear against the wheel, and the axles or arbors E, the opposite ends of which are secured in the side walls of the shoe, substantially as set forth.
- 10 2. The combination, with the body or shoe having a series of cavities formed in the front face thereof, of a friction-roller for each cav-

ity, and an axle for holding the roller within its cavity, the ends of the said axles being secured in the side walls of the shoe, substantially as set forth.

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

GEORGE N. SCEETS.

Witnesses:

E. W. SCOTT,
V. SIEGEL.