

(No Model.)

2 Sheets—Sheet 1.

A. L. ADAMS.

ROLLER AND EXTENSION AXLE.

No. 338,459.

Patented Mar. 23, 1886.

Fig. 1.

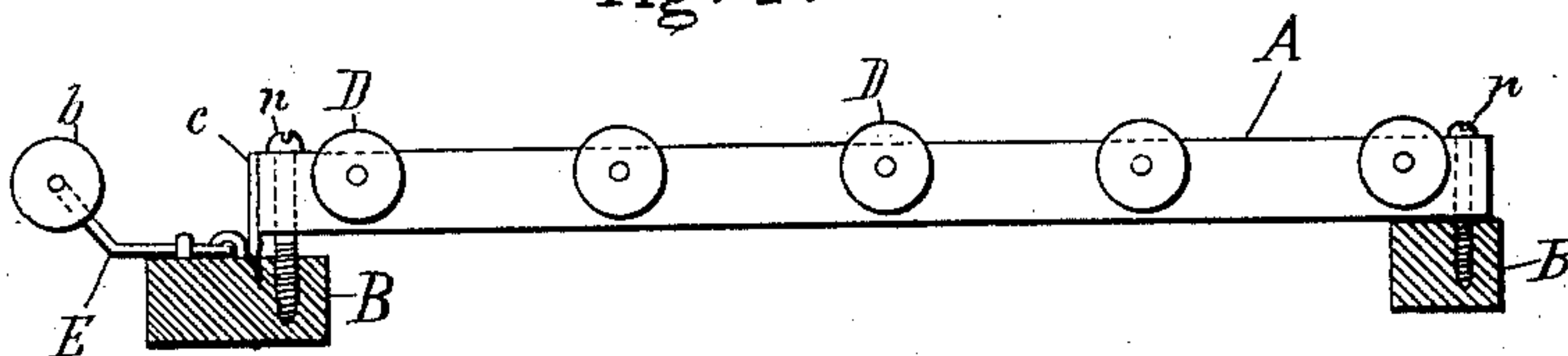
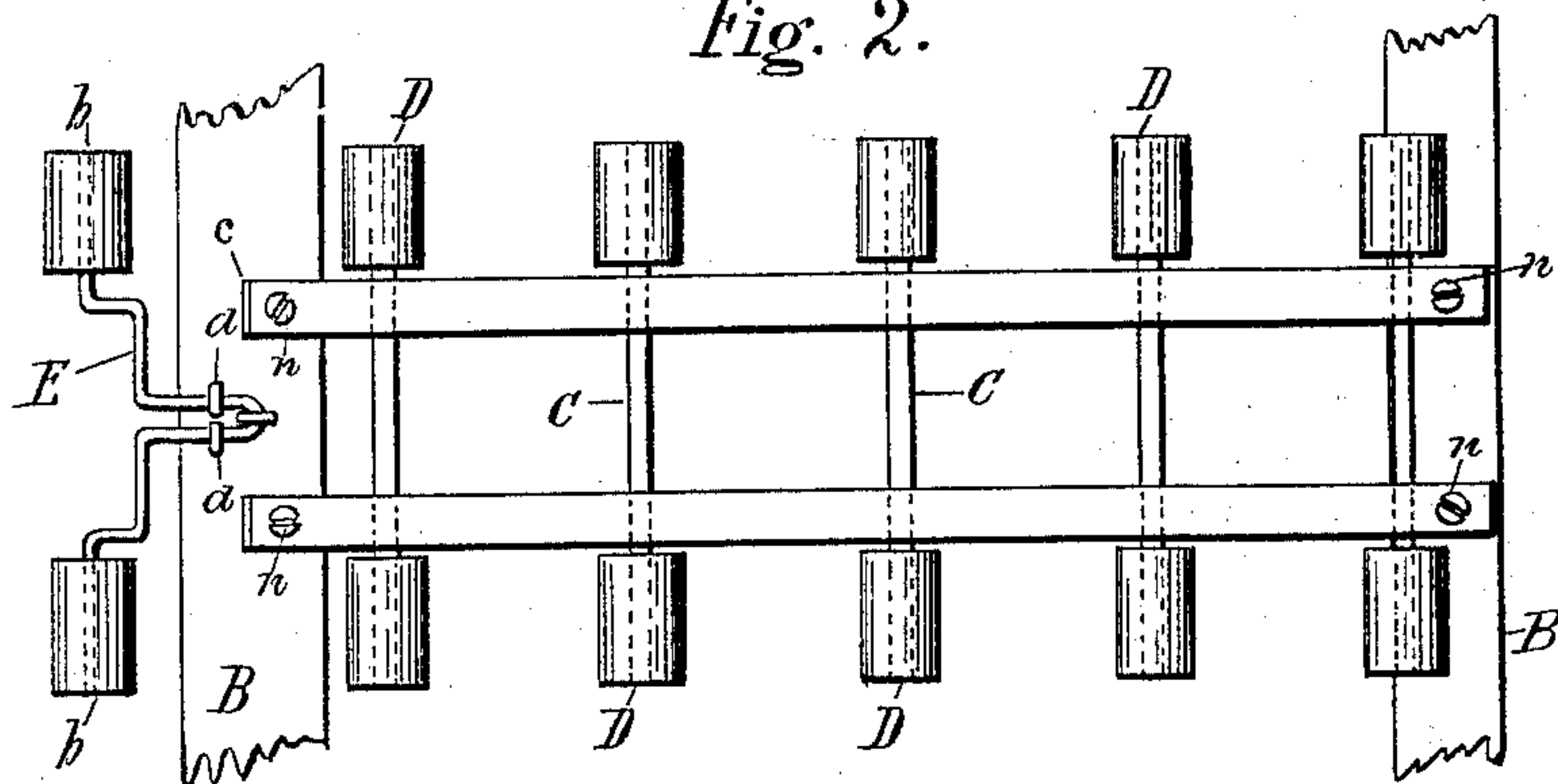


Fig. 2.



WITNESSES:

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(No Model.)

2 Sheets—Sheet 2.

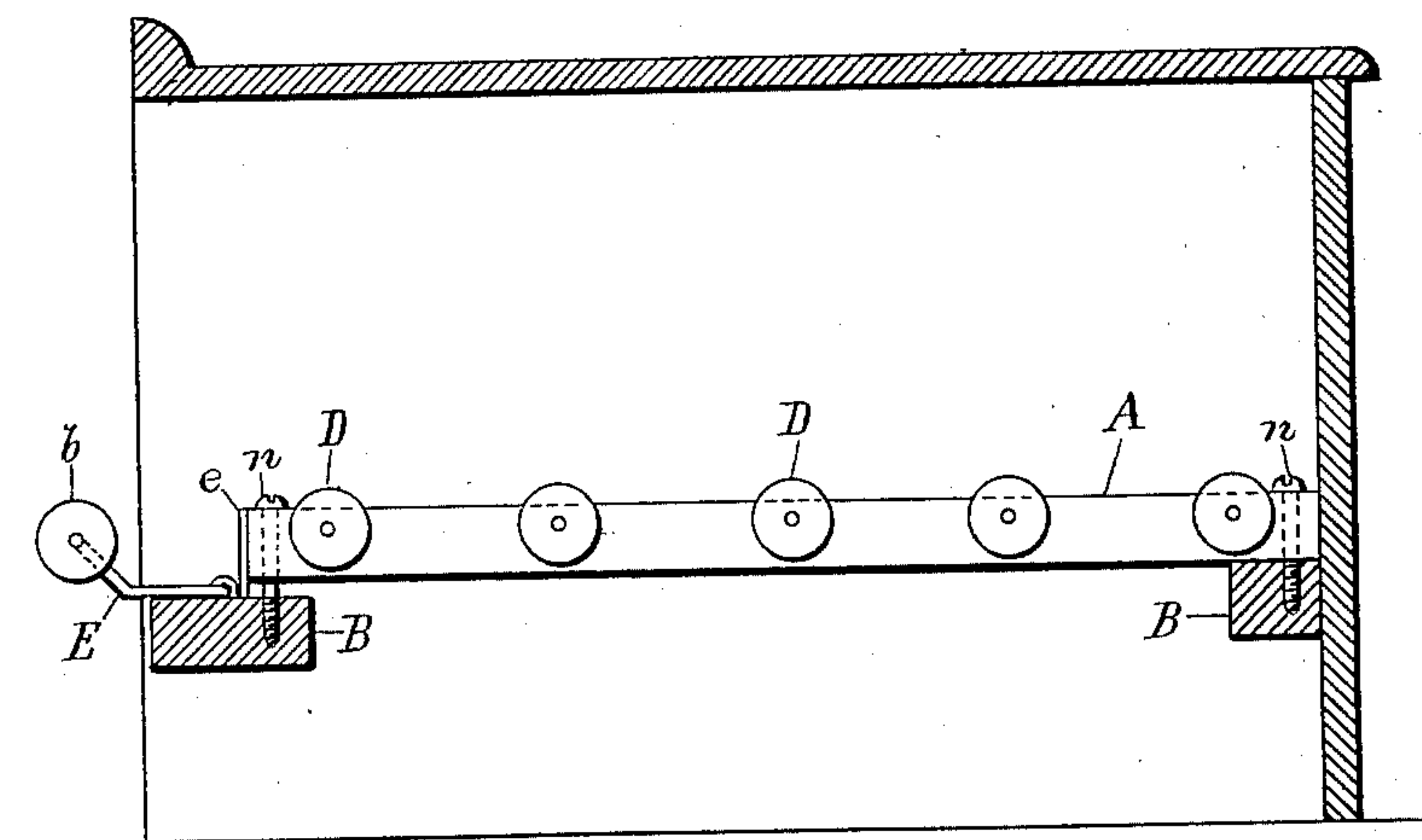
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Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

A. LEMUEL ADAMS, OF NEW YORK, N. Y.

ROLLER AND EXTENSION AXLE.

SPECIFICATION forming part of Letters Patent No. 338,459, dated March 23, 1886.

Application filed November 9, 1885. Serial No. 182,320. (No model.)

To all whom it may concern:

Be it known that I, A. LEMUEL ADAMS, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Roller and Extension Axles, of which the following is a specification.

My invention relates to roller and extension axles for book-cases and other devices; and it consists in certain novel details of construction and operation, as hereinafter more particularly described, and illustrated in the accompanying drawings, in which—

Figure 1 is a side view of my invention. Fig. 2 is a top or plan view. Fig. 3 is a side view of my invention applied to a book-case.

Similar letters indicate similar parts.

The letter A designates bars of wood or iron, having their ends resting upon supports B B, so as to permit of their being moved laterally, and having their outer ends provided with a point, *c*, to retain them in position; or after the bars A A are adjusted to their proper position they may be secured by screws *n*. Intermediate of the ends of bars A A, I provide axles C C by passing them through openings in the bars, which axles have a diameter smaller than said openings, so that the axles will move freely therein, and so that the space between the bars may be increased or diminished, as may be desired, by moving the bars laterally on the axles. On the ends of the axles C C, I place rollers D D, which extend above the top of the bars A A, and which turn freely on their axles, as shown in Fig. 1.

On one of the supports is secured by means of fastenings *a a a* a novel-shaped spring, E, which is first bent in the shape of a staple, then to the right and left, and then upward and outward, on the outer ends of which I provide rollers *b b*, as shown in Figs. 1 and 2,

which spring by its peculiar construction assists in placing a book in its proper aperture. The spring E may be extended or contracted to correspond with the width of the position.

A series of my improvements may be constructed side by side with divisions between them, forming pigeon-holes, like a book-case, which holes may be of any suitable size.

The operation of my invention is as follows: When a book is to be placed in position, it is first rested on the spring-rollers *b b* of the spring E, which by its own inherent elasticity assists in forcing the book onto the rollers D D, when the book is easily passed by means of said rollers D D to its proper place.

The spring E is an important feature of my invention, as it may be applied to the lids of match, tobacco, and other boxes to open them, and for other purposes.

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

1. A book-rack consisting of the bars A, axles C, rollers D, and spring E, substantially as herein shown and described.

2. A spring, E, bent in the shape of a staple, then to the right and left, then upward and outward, with or without rollers on its outer ends, substantially as shown and described.

3. In combination with a book-rack, the spring E and its rollers *b*, substantially as and for the purpose described.

4. A book-rack consisting of the bars A, axles C, rollers D, spring E, and rollers *b*, substantially as and for the purpose described.

Signed at New York, in the county of New York and State of New York, this 6th day of November, A. D. 1885.

A. LEMUEL ADAMS.

Witnesses:

JAS. S. EWBANK,
FRANCIS C. BOWEN.