

(No Model.)

F. BROWN.
ROLLER SKATE.

No. 321,931.

Patented July 7, 1885.

Fig. 1.

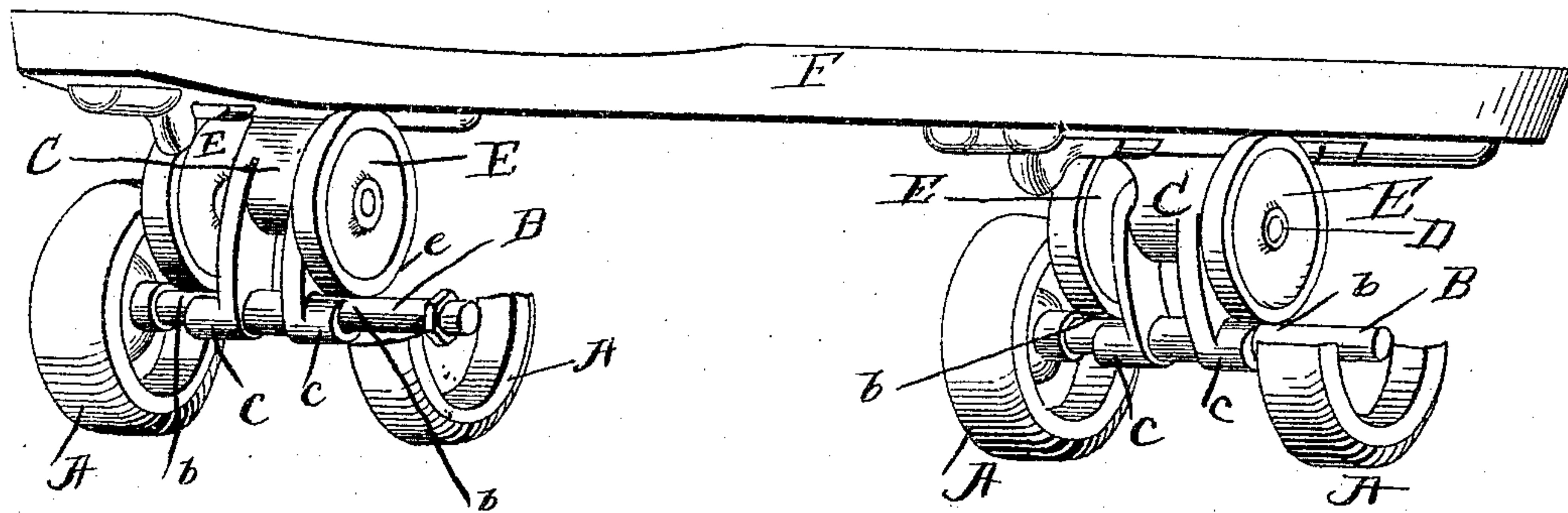


Fig. 2.

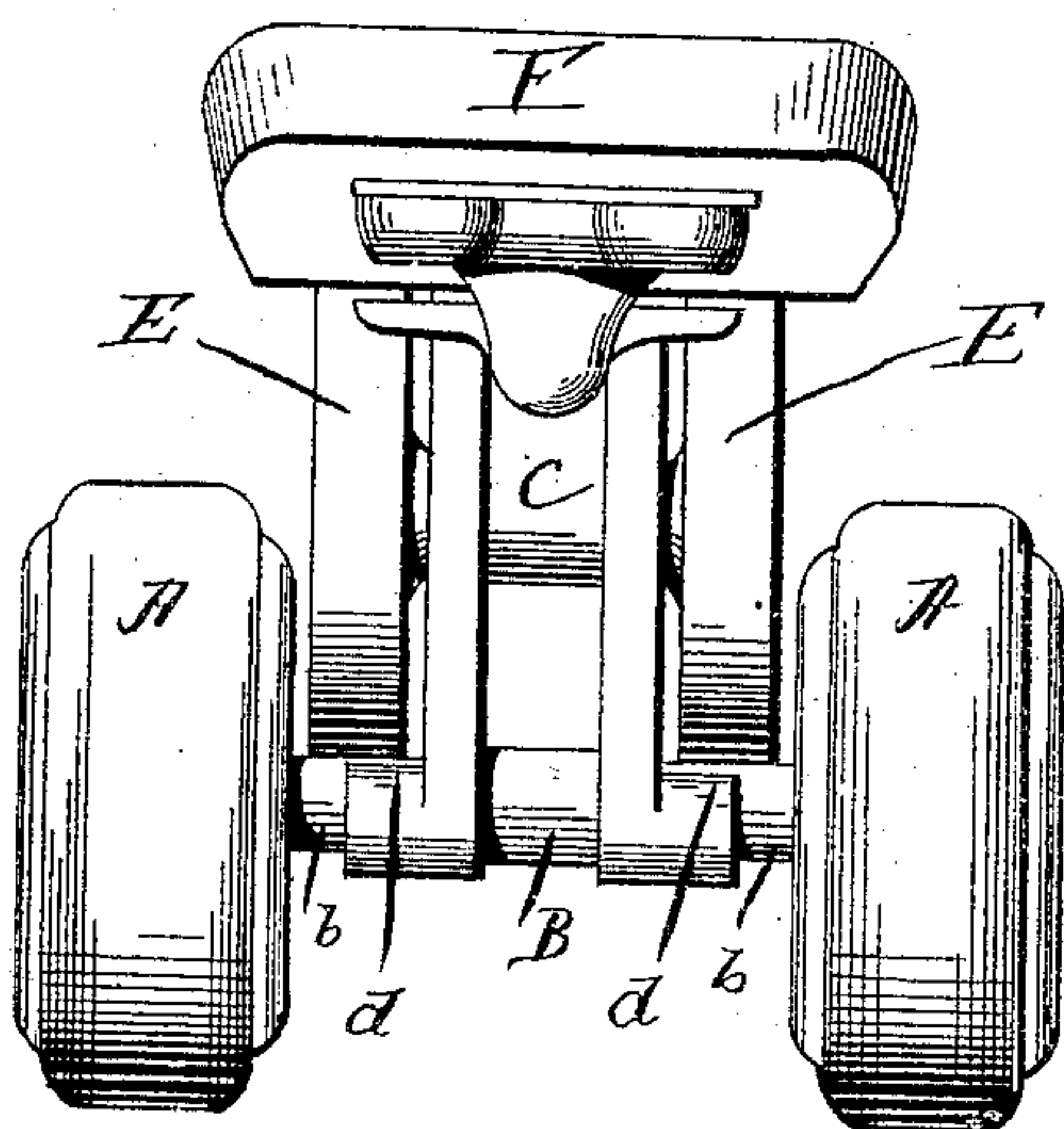
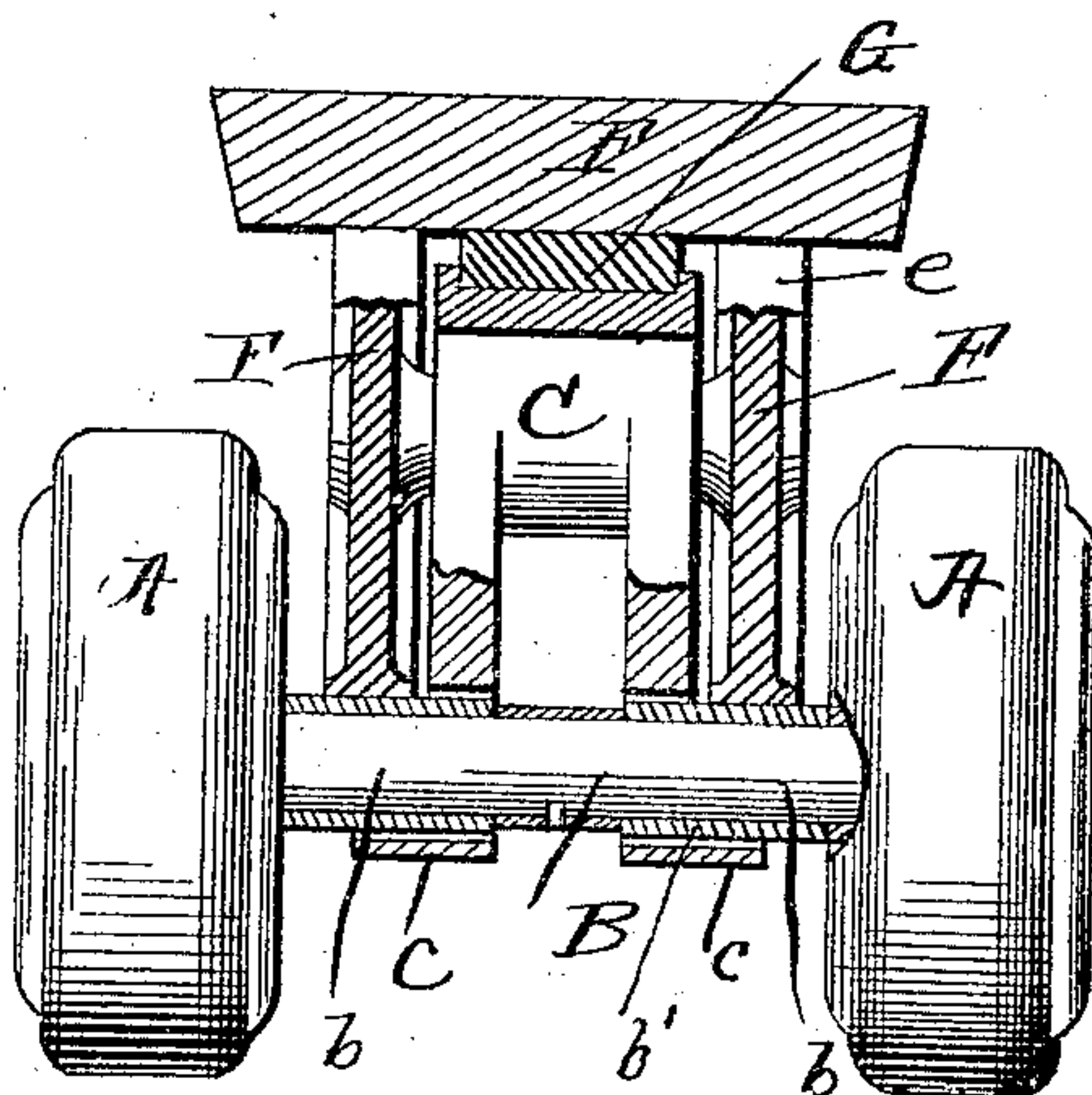


Fig. 3.



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ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 321,931, dated July 7, 1885.

Application filed April 4, 1885. (No model.)

To all whom it may concern:

Be it known that I, ISRAEL F. BROWN, a citizen of the United States, residing at New London, in the county of New London and State of Connecticut, have invented certain new and useful Improvements in Anti-Frictional Journal-Bearings for Roller-Skates; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention has relation to anti-friction journal-bearings, and the object is to provide a journal-bearing of the class described, whereby the wear and tear and the friction will be reduced to a minimum; and to these ends the novelty consists in the construction and combination of the same, as will be hereinafter more fully described.

In the accompanying drawings the same letters of reference indicate the same parts of the invention.

Figure 1 is a view in perspective of a roller-skate having the rollers mounted upon my improved anti-friction bearings. Fig. 2 is a front elevation of the same, and Fig. 3 is a similar view, partly in section, of a modification of the same.

A A are the rollers, which may be of any approved form, secured to the axle B, which revolves freely in the lower arms *c c* of the bracket C. A portion, *d*, of these arms is cut away so as to permit the periphery *e* of the anti-friction wheel E to come in contact with the journal *b* of the axle B. A pair of the wheels E E are securely mounted upon a shaft, D, journaled in the bracket C, so that the lower points of their peripheries *e* will furnish a bearing for the journals *b b* of the axle B. The bracket C is longitudinally hinged to the

stock F, so as to have a slight oscillating motion to compensate for any want of parallelism between the rollers and the stock, and the bracket is held in its normal or central position by the elastic rubber strip G, which forms a cushion for the bracket C. It will thus be seen that the wheel E forms a rolling bearing for the journal *b*. As the surfaces of the two move in unison, there can be no cutting or grinding motion, consequently no wear or tear on the journal or bearing, and at the same time the wheel forms an anti-friction bearing for the journal.

In the modification shown in Fig. 3 a sleeve, *b'*, is placed on the journal *b*, and this sleeve comes in contact with the periphery *e* of the anti-friction wheel E, so that in case of any damage to the journal the sleeve would receive it and the damage could be repaired at a trifling cost by removing the damaged sleeve and replacing it by a new one.

Having thus described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

1. The combination, with the bracket C, provided with elastic cushion, of the axle B and wheels E E, as and for the purpose set forth.

2. The combination, with the bracket C, provided with anti-friction wheels E E, of the axle B, mounted in the lower arms of said bracket, as set forth.

3. The combination, with the axle B, having journals *b b*, of the bracket C, having arms *c c* and cut-away portions *d d*, and the shaft D, provided with anti-friction wheels E E, as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ISRAEL F. BROWN.

Witnesses.

GEO. COLFAX,

EDWARD T. BROWN.