

(No Model.)

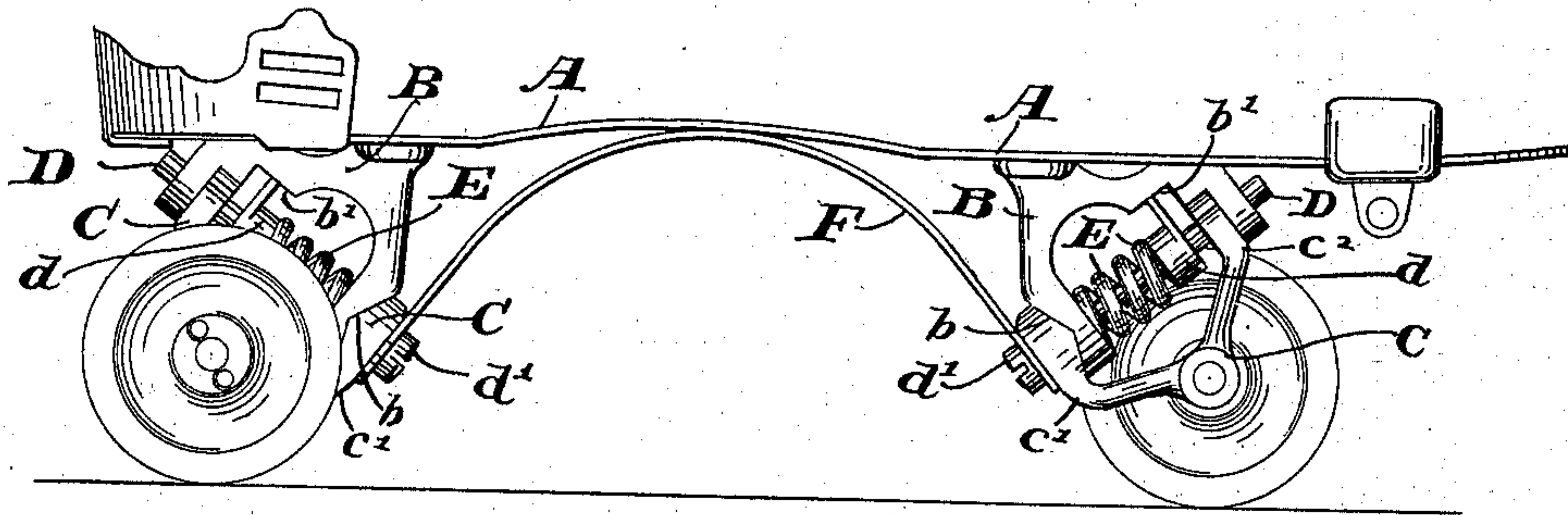
J. H. THOMPSON.

ROLLER SKATE.

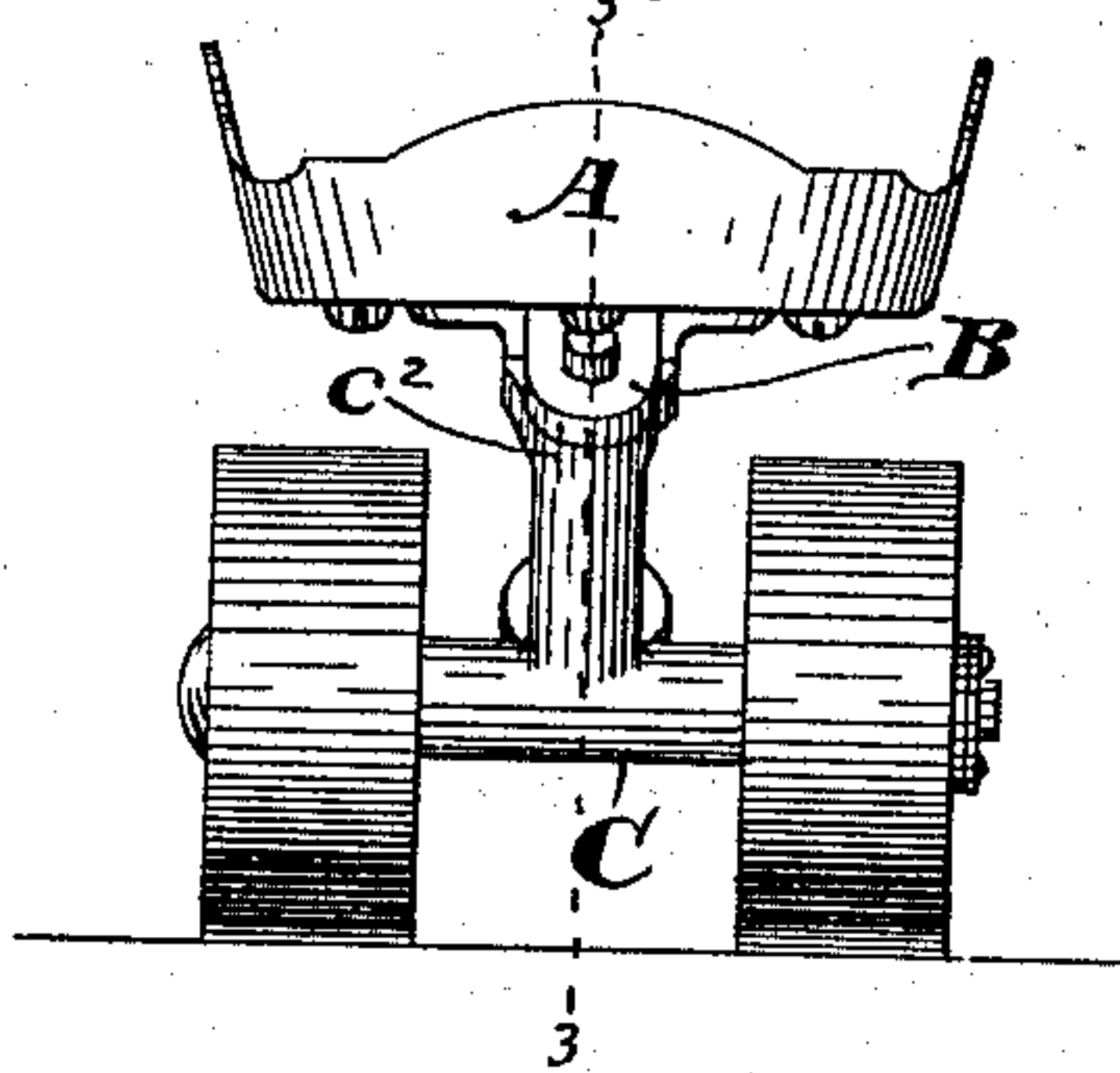
No. 322,504.

Patented July 21, 1885.

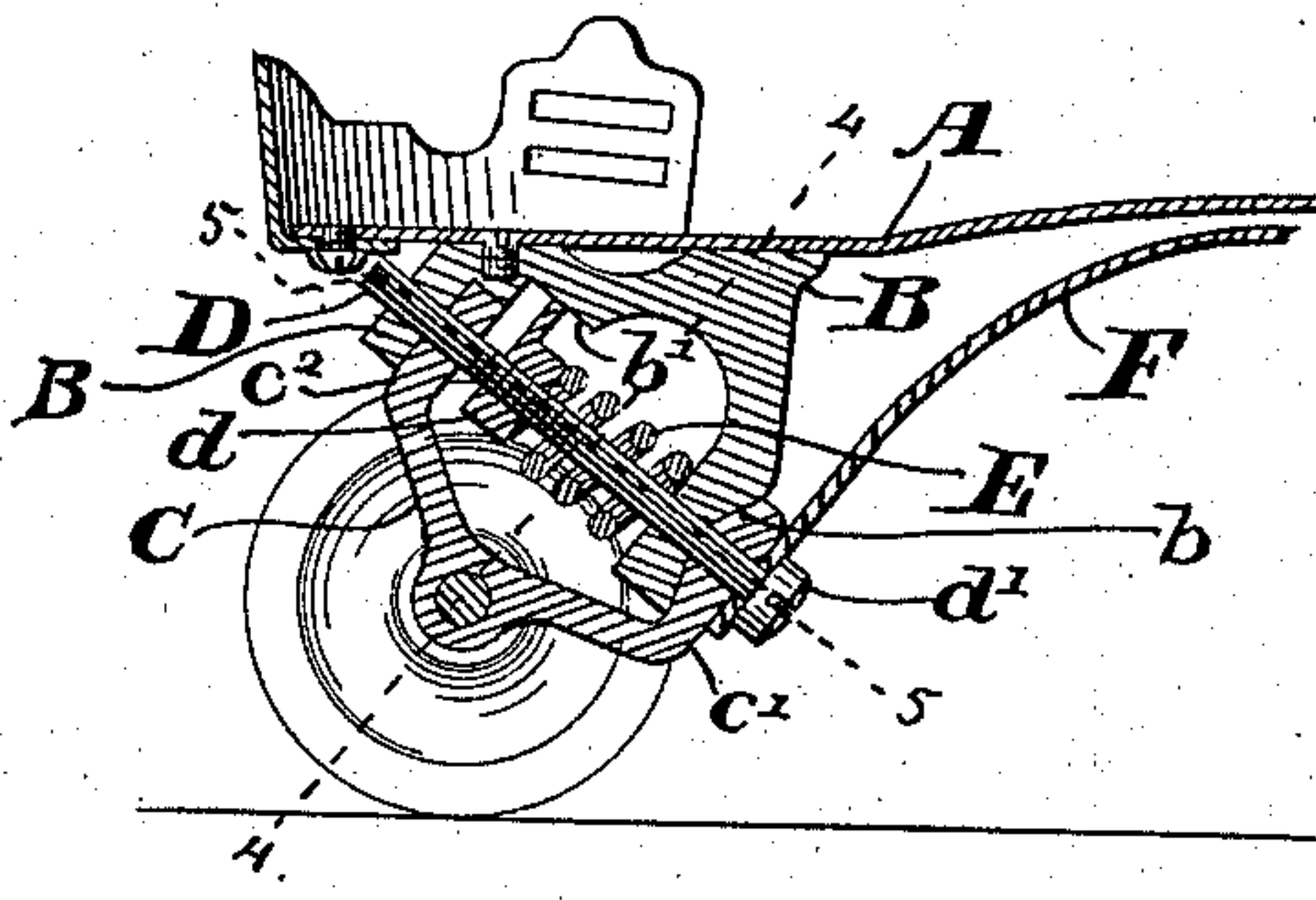
*Fig. 1.*



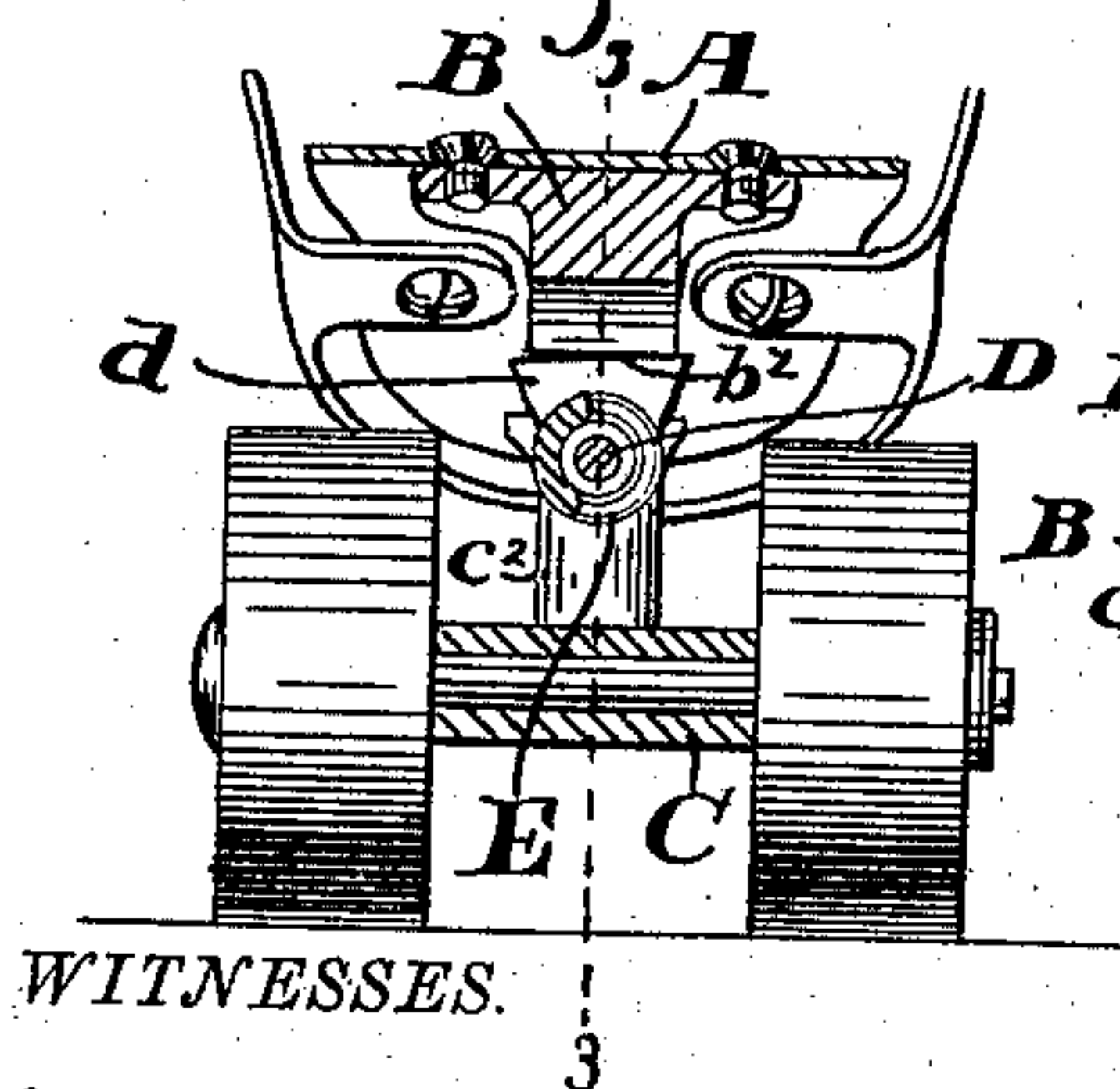
*Fig. 2.*



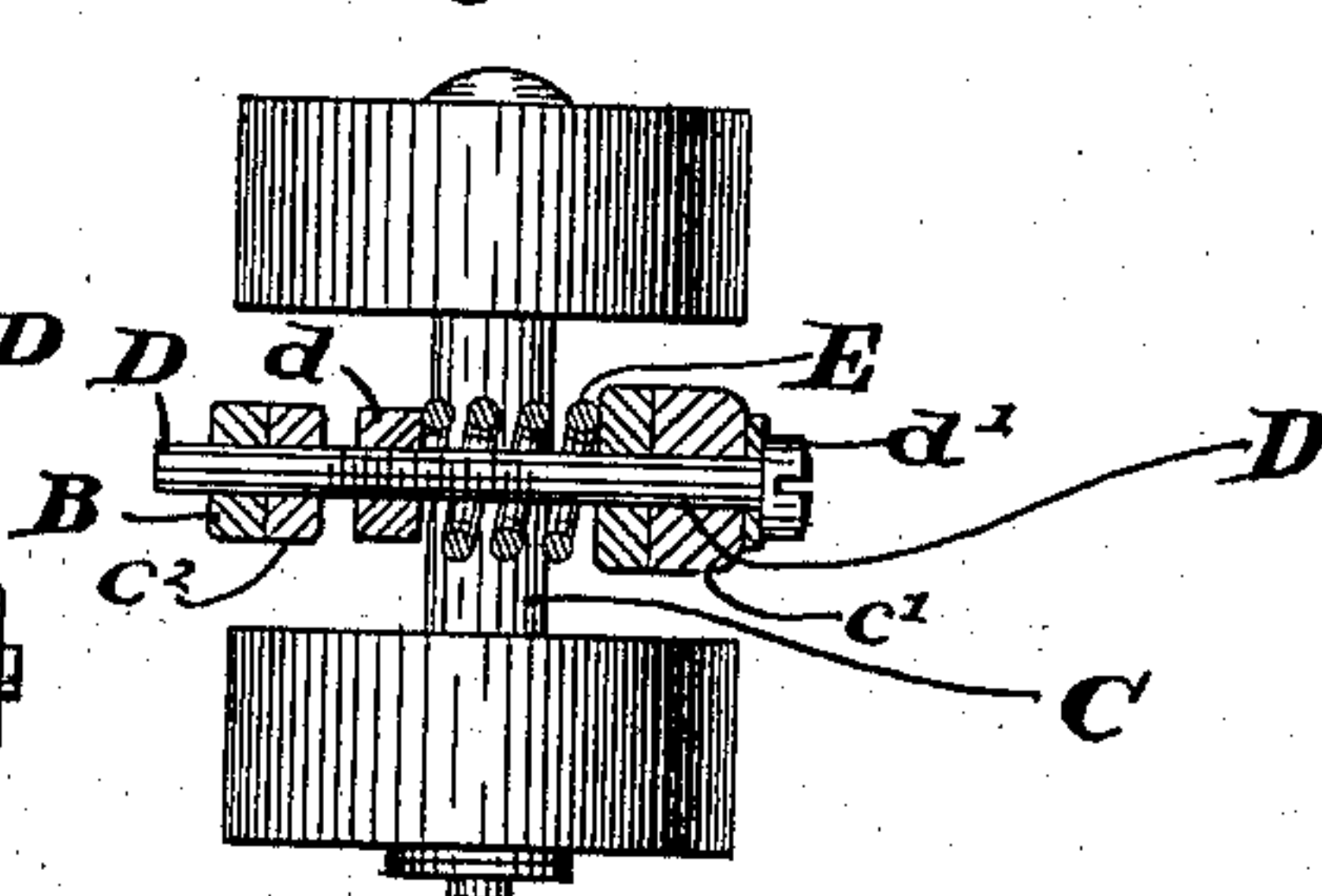
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



WITNESSES.

Chas. Leonard.  
Chas. E. Thurber.

INVENTOR.

John H. Thompson,  
PER  
C. Bradford,  
ATTORNEY.



# UNITED STATES PATENT OFFICE.

JOHN H. THOMPSON, OF INDIANAPOLIS, INDIANA, ASSIGNOR OF ONE-HALF  
TO THE GILLILAND MANUFACTURING COMPANY, OF SAME PLACE.

## ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 322,504, dated July 21, 1885.

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

*To all whom it may concern:*

Be it known that I, JOHN H. THOMPSON, of the city of Indianapolis, county of Marion, and State of Indiana, have invented certain new and useful Improvements in Roller-Skates, of which the following is a specification.

My said invention consists in an improved construction of the mounting for the rolls of roller-skates, whereby said rolls, while permitted the usual rocking motion, are held comparatively rigid in their normal position. This construction consists in flat surfaces on the hangers and wheel-frames, which come together and are held in contact by a spring, as will be hereinafter more fully described.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a side elevation of a skate embodying my invention, one of the rollers being removed; Fig. 2, a rear elevation of the same; Fig. 3, a central section on the dotted line 3 3 in Fig. 2; Fig. 4, a sectional view looking toward the left from the dotted line 4 4 in Fig. 1, and Fig. 5 a sectional view looking downwardly from the dotted line 5 5 in Fig. 3.

In said drawings the portions marked A represent the foot-plate of the skate; B, the hangers; C, the wheel-frames; D, the pivot-shafts; E, the springs, and F an arch-shaped spring extending from one wheel-frame to the other underneath the foot-plate.

The foot-plate A is of any ordinary or preferred form, and carries the hangers B, which are secured thereto in the ordinary and well-known manner. Said hangers B have the ordinary bearings for the diagonally-set pivot-shafts, and also have flattened surfaces, *b*, against which similar surfaces on the wheel-frames rest, and other flattened surfaces *b'*, which serve as a guide to the nuts by which the tension of the springs is regulated. The flattened surfaces *b* are preferably V-shaped, as shown most plainly in Fig. 3, and the wheel-frames are thus always guided back to their normal positions when acted upon by the force of the springs.

The wheel-frames C carry the wheels or roll-

ers on shafts secured therein in the ordinary manner. The upwardly-extended portions, *c' c'*, have bearings for the diagonally-set pivot-shafts, and the portions *c'* have, in addition, flattened surfaces corresponding to the flattened surfaces *b* of the hangers, and which fit against and operate upon said flattened surfaces *b*, as shown.

The pivot-shafts D extend through the bearings in the hangers and wheel-frames, and secure said wheel-frames to said hangers. They are screw-threaded for a portion of their length, and carry nuts *d*, which are prevented from turning thereon by the flattened surfaces *b'* on the hangers, whereby the springs may be compressed, and the rigidity of the movement thus regulated by simply turning said pivot-shafts with a wrench or screw-driver.

The springs E surround the pivot-shafts, and are interposed between the lower portions of the hangers and the nuts *d*, as shown, and thus tend to force the pivot-shafts upwardly and hold the wheel-frames in close contact with the hangers, said pivot-shafts being provided on the outer ends with heads or nuts *d'*.

The flat or arched spring F has holes in its ends, through which the pivot-shafts D pass, and said ends thus serve as washers for the heads or nuts on the outer ends of said pivot-shafts in addition to their function of re-enforcing or aiding the springs E in holding the wheel-frames in close contact with the hangers. This spring, however, may be dispensed with, and short metal strips secured to the hangers be used instead, which will answer the purpose of washers quite as well, which is the principal use of this device. I prefer the form shown, however, as it not only supplements and re-enforces the spring E, but also serves to some extent to brace and strengthen the foot-plate.

The operation is as follows: When the skate is in use, the skater in turning, as is well known, rocks or cants his foot. This operates to rock the wheel-frames on the hangers, and the flattened surfaces on said hangers and frames, aided by their V-shaped formation, operate to draw the pivot-shafts endwise, compressing the springs. When the force of this movement is relaxed, the spring draws the wheel-frames



back into their normal position, the  $\Lambda$ -shaped surfaces thereon fitting back closely into the  $V$ -shaped surfaces on the hangers.

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

1. The combination, in a roller-skate, of hangers having flattened surfaces, wheel-frames having corresponding flattened surfaces, pivot-shafts passing through bearings on said hangers and wheel-frames, and thus secure them together, nuts on said pivot-shafts, and springs interposed between said hangers and said nuts.

2. The combination, in a roller-skate, of hangers having flattened surfaces, wheel-frames having corresponding flattened surfaces, pivot-shafts screw-threaded for a portion of their length, and carrying nuts which pass through and secure said hangers and wheel-frames together, springs interposed between said hangers and nuts, and stationary washers interposed between the outer heads or nuts of the pivot-shafts and said wheel-frames.

3. The combination, in a roller-skate, of hangers B, having flattened surfaces  $b$  and  $b'$ , wheel-frames C, having flattened surfaces corresponding to the surfaces  $b$ , pivot-shafts D,

screw-threaded for a portion of their length and carrying nuts  $d$ , having projections which rest against the flattened surfaces  $b'$ , being thus held from turning, spring surrounding said pivot-shafts, and interposed between said hangers and nuts, and thereby rendered adjustable by turning said pivot-shafts, substantially as set forth.

4. The combination of the foot-plate A, hangers B, having flattened surfaces  $b$  and  $b'$ , wheel-frames C, having correspondingly flattened surfaces and carrying the axles and rollers, pivot-shafts D, carrying-nuts  $d$ , the springs E, and spring F, substantially as shown and specified.

5. The combination, in a roller-skate, of hangers having bearing-surfaces surrounding the pivot-shafts  $V$ -shaped in one direction, wheel-frames having corresponding surfaces, and springs, whereby said surfaces are held in contact.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 1st day of April, A. D. 1885.

JOHN H. THOMPSON. [L. S.]

In presence of—

C. BRADFORD,

CHARLES L. THURBER.