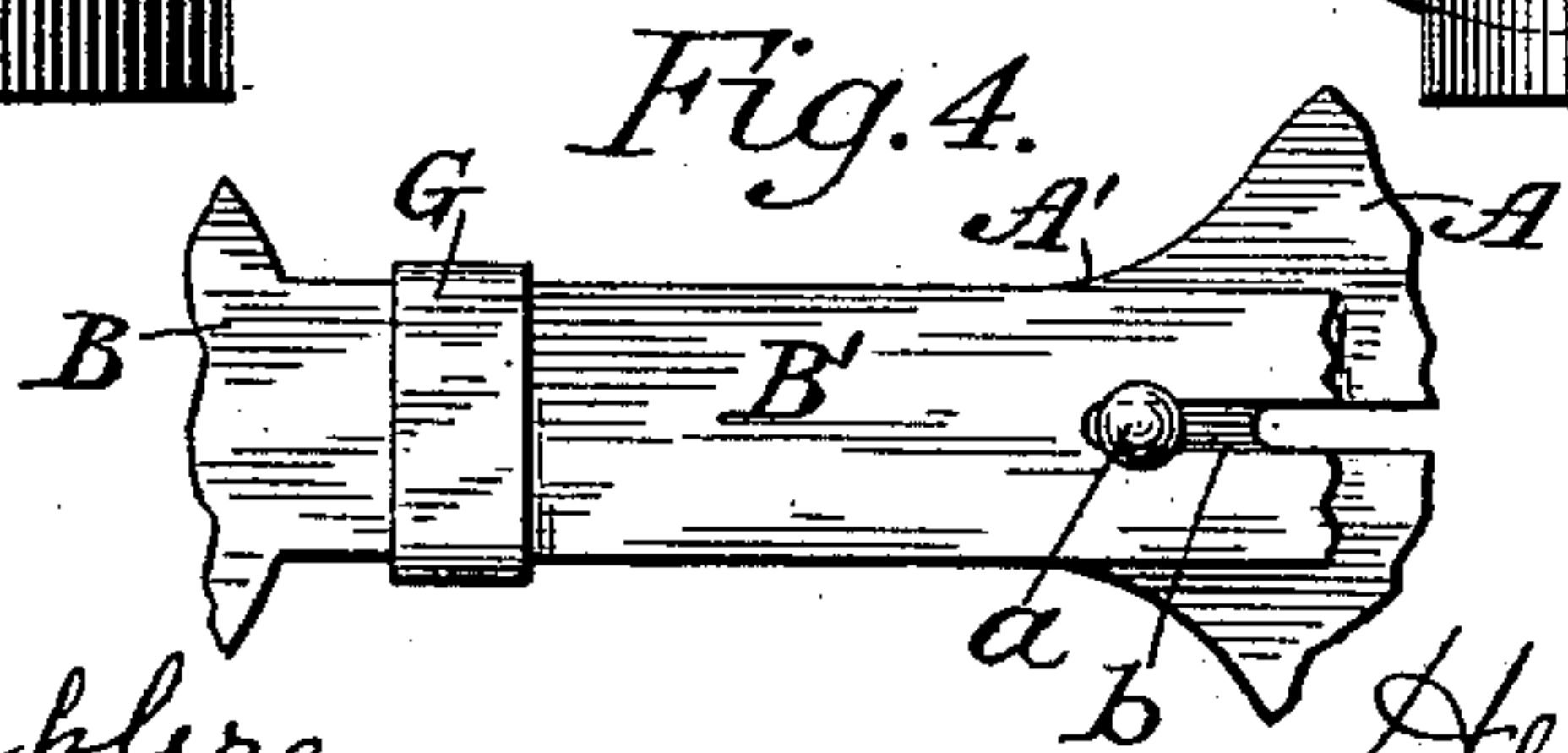
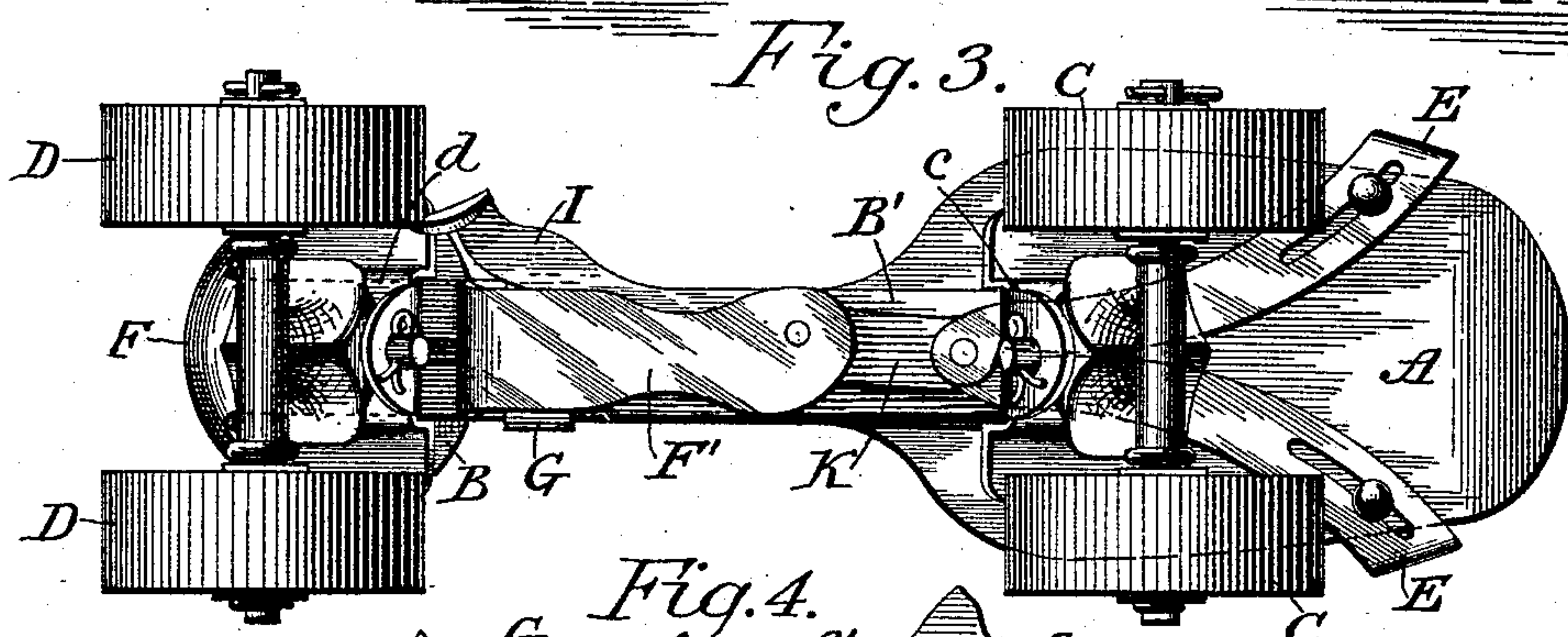
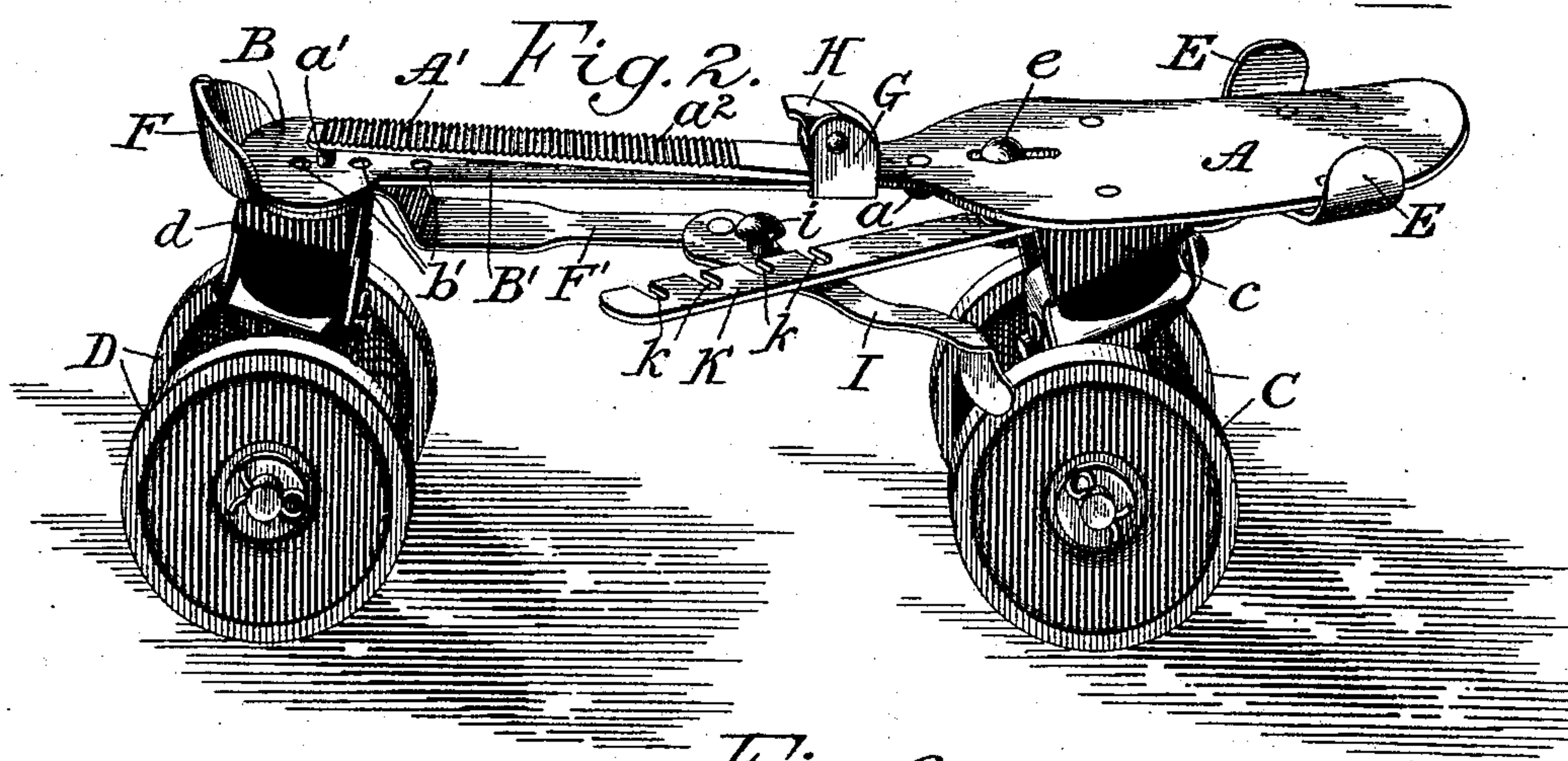
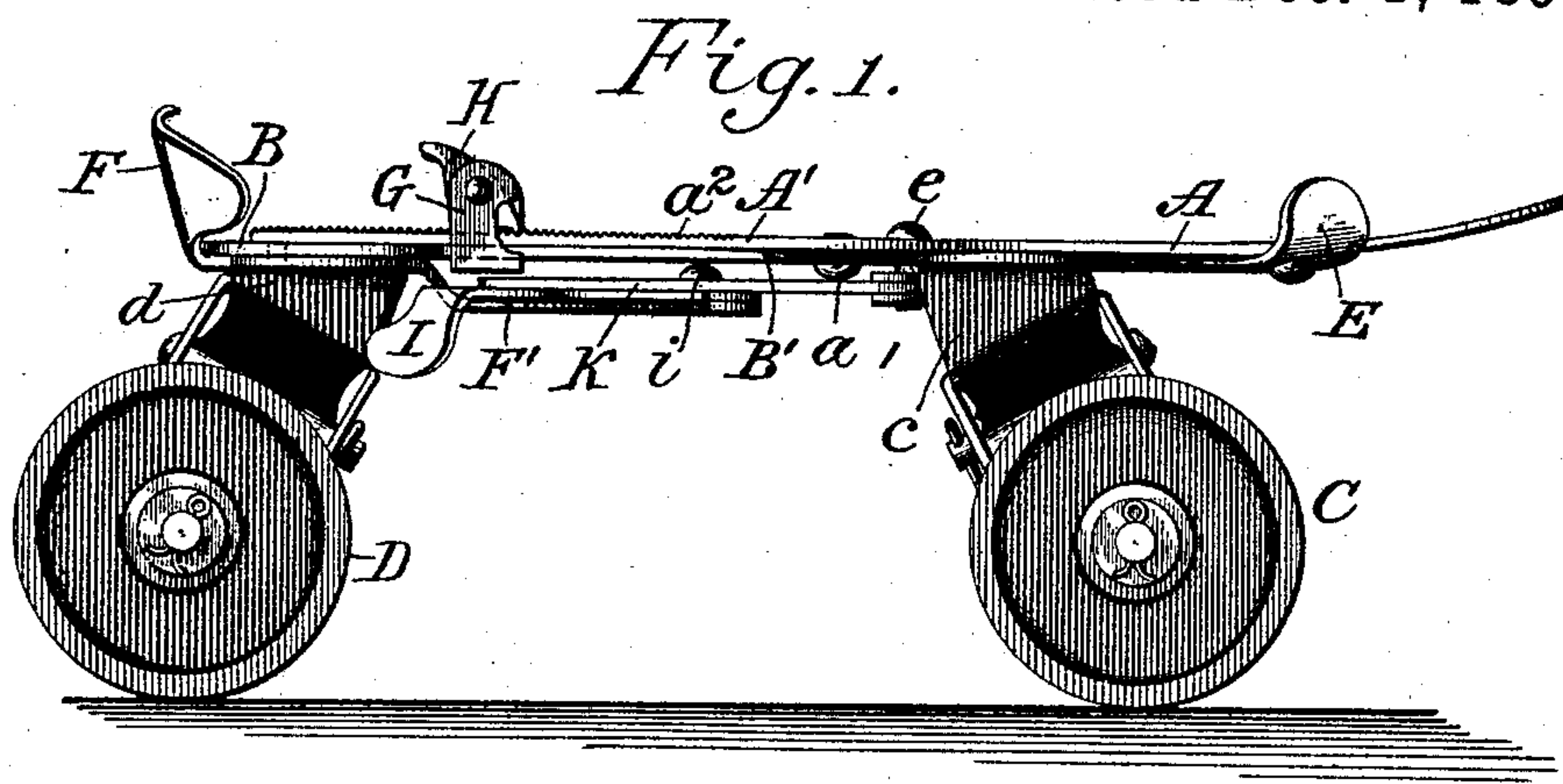


(No Model.)

H. D. CARRYL.  
SKATE.

No. 572,501.

Patented Dec. 1, 1896.



WITNESSES:

*W. H. Humphrey.*  
*A. N. Jester.*

INVENTOR

*Henry D. Caryl*

BY

*Redding Kidole*  
ATTORNEYS



# UNITED STATES PATENT OFFICE.

HENRY D. CARRYL, OF NEW YORK, N. Y., ASSIGNOR TO THE LAMB MANUFACTURING COMPANY, OF JERSEY CITY, NEW JERSEY, AND CHICOPEE FALLS, MASSACHUSETTS.

## SKATE.

SPECIFICATION forming part of Letters Patent No. 572,501, dated December 1, 1896.

Application filed February 19, 1896. Serial No. 579,819. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY D. CARRYL, a citizen of the United States, residing in the city and county of New York, State of New York, have invented certain new and useful Improvements in Skates, of which the following is a specification, reference being had to the accompanying drawings, forming a part hereof.

10 This invention relates in general to the construction of skates, and has for its object the provision of improved means whereby a skate may be lengthened or shortened to adapt it to shoes of different lengths. Various means  
15 having this general object in view have been devised heretofore, but they are for the most part either unnecessarily complicated or require the use of a wrench or other tool to effect the desired adjustment, or have detachable parts, such as thumb-nuts, which are  
20 liable to be lost and thereby to render the skate useless for the time being. I have sought to provide means for this purpose which shall be extremely simple in construction, shall require no key or other tool for  
25 their adjustment, and shall have no detachable parts to be lost.

I have herein shown and described my improvements as adapted to a roller-skate, but  
30 it will be understood that they might be applied to skates of other form and construction.

The various features of improvement wherein my invention consists will be fully described hereinafter with reference to the accompanying drawings, in which—

35 Figure 1 is a side view of a roller-skate to which my improvements are applied. Fig. 2 is a perspective view of the same with the parts separated somewhat to enable their construction to be more clearly represented.  
40 Fig. 3 is a bottom view of the skate in condition for use; and Fig. 4 is a bottom view of a portion of the extensible foot-plate, showing features of construction which are obscured in Fig. 3.

45 In the skate which I have chosen for illustration in the drawings the foot-plate is formed in two parts, a toe-plate A and a heel-plate B, to which are respectively secured in  
50 a suitable manner the bearings for the front rollers C and the rear rollers D. The toe-

plate A is provided with toe-clamps E E, which are constructed and arranged to operate in the usual manner, and the heel-plate B is provided with a sliding heel-clamp F.

55 The toe-plate A and heel-plate B are provided, respectively, with tongues A' and B', which overlap, the tongue A' preferably overlapping the tongue B and the latter sliding through the bracket c, which supports the  
60 front rollers C, and between the inner end of the curved toe-clamps E E and the toe-plate A. Its forward end is preferably slotted, as at b, to engage the headed stud a, which is secured to the toe-plate, and also to permit  
65 movement of the stud e, which connects the toe-clamps to the link hereinafter referred to and plays to and fro in a slot in the toe-plate. The rear end of the tongue A' is provided with a pin or stud or other projection a', which  
70 is adapted to enter any one of a series of holes b' in the heel-plate B and its tongue B', whereby the two parts of the foot-plate may be retained in the relative longitudinal position desired, according to the length of the  
75 foot on which the skate is to be used.

To retain the tongue A' in engagement with the heel-plate B, I prefer to make use of the adjustable heel-dog, which is clearly shown  
80 in Figs. 1 and 2. As there represented, it comprises a slide G, which embraces the two tongues A' and B', and has pivoted between its side pieces a dog H, which is adapted to engage the heel at its upper end and at its lower end to engage the roughened or serrated  
85 surface a' of the tongue A'. When the dog H is disengaged from the serrations, the slide can be moved to and fro upon the two tongues A' and B', and when it is moved forward to the position represented in Fig. 2 the tongue  
90 A' can be sprung upward sufficiently to disengage the pin a' from the heel-plate B and to permit the longitudinal adjustment of one plate with respect to the other. When, however, the slide is in the position represented  
95 in Fig. 1, the tongue A' is held positively from disengagement from the heel-plate, whereby the two parts of the foot-plate are locked in adjusted position.

The heel-clamp F is carried by a tongue F',  
100 which slides freely through the bracket d, which supports the rear rollers D. It may be



bent downwardly, as indicated, to avoid interference with the slide G, and at its forward end has pivoted thereto the clamping-lever I. The latter is provided with an eccentric stud *i* for engagement in any one of a series of open notches *k*, which are formed in the edge of the link K, to which the toe-clamps E E are pivotally connected. The notches *k k* correspond to the holes *b' b'* in the heel-plate B, and the stud *i* will be engaged with that one of the notches *k k* which corresponds in position with that one of the holes *b' b'* which is entered by the pin *a'* of the tongue A'. When the clamping-lever is engaged with the link in the manner described, it operates in the usual and well-known manner to draw the heel-clamp F forward to clamp the heel between itself and the heel-dog and to draw the toe-clamps together to clamp the sole of the shoe between them.

It is obvious that the clamping devices are capable of easy adjustment according to the length of the foot-plate, and that the length of the foot-plate can be easily and quickly changed and secured against the possibility of slipping. Moreover, there are no parts to become detached and lost and no key, wrench, or other instrument or tool is required to assist the fingers of the operator. Furthermore, the construction is exceedingly simple and inexpensive and the skate is not weakened at any point.

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

1. In a skate, the combination with a toe-plate and heel-plate having overlapping tongues, one of said tongues being adapted to engage the other tongue, of a sliding heel-

dog formed to embrace both of said tongues and to be moved thereon to prevent or permit the disengagement of the one of said tongues from the other, substantially as shown and described.

2. In a skate, the combination with a toe-plate and a heel-plate having overlapping tongues, one of said tongues being adapted to engage the other tongue to prevent longitudinal movement, and a slide formed to embrace both of said tongues and to be moved thereon to prevent or permit disengagement of the one tongue from the other, of toe-clamps carried by said toe-plate, a clamping-lever carried with said heel-plate and having an eccentric stud, and a link to which said toe-clamps are connected, said link being formed to engage said eccentric stud at different points in its own length, substantially as shown and described.

3. In a skate, the combination with a foot-plate composed of a toe-plate and a heel-plate adjustable longitudinally with respect to each other, of sliding toe-clamps carried by said toe-plate, a longitudinally-sliding heel-clamp mounted on said heel-plate, a clamping-lever carried by said heel-plate and a link to which said toe-clamps are connected, said link being formed for adjustable engagement with said clamping-lever, substantially as shown and described.

This specification signed and witnessed this 15th day of February, A. D. 1896.

HENRY D. CARRYL.

In presence of—

FRANK C. FLINT,  
WALTER M. ALDEN.