

(No Model.)

C. M. RAYMOND.

ROLLER SKATE.

No. 318,291.

Patented May 19, 1885.

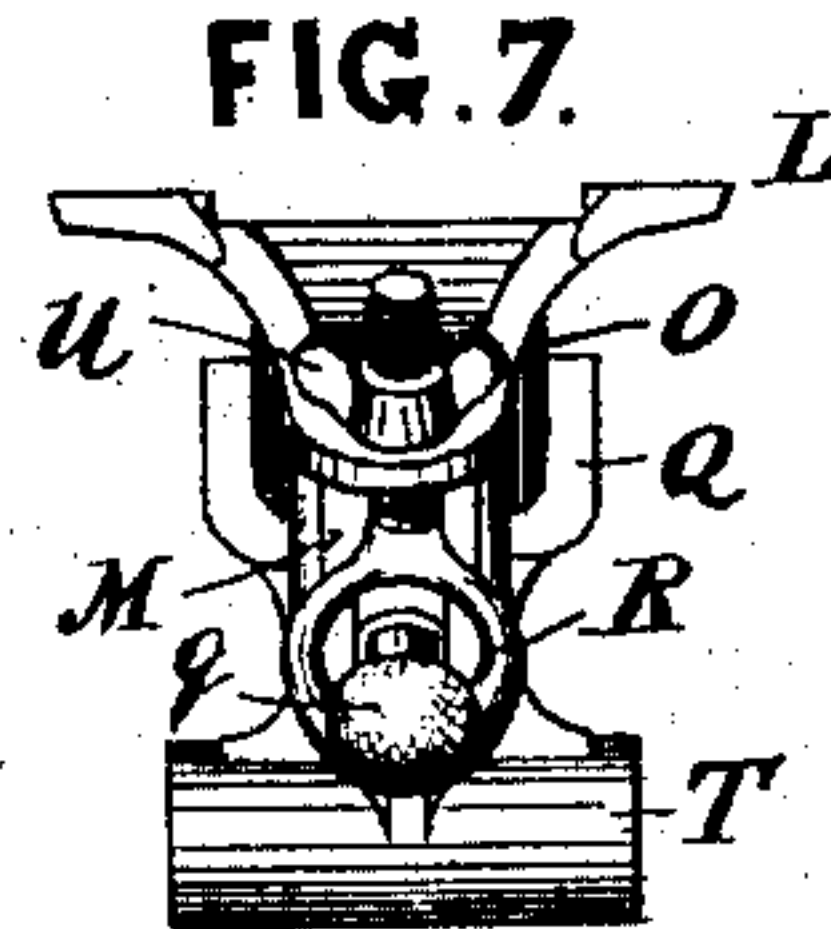
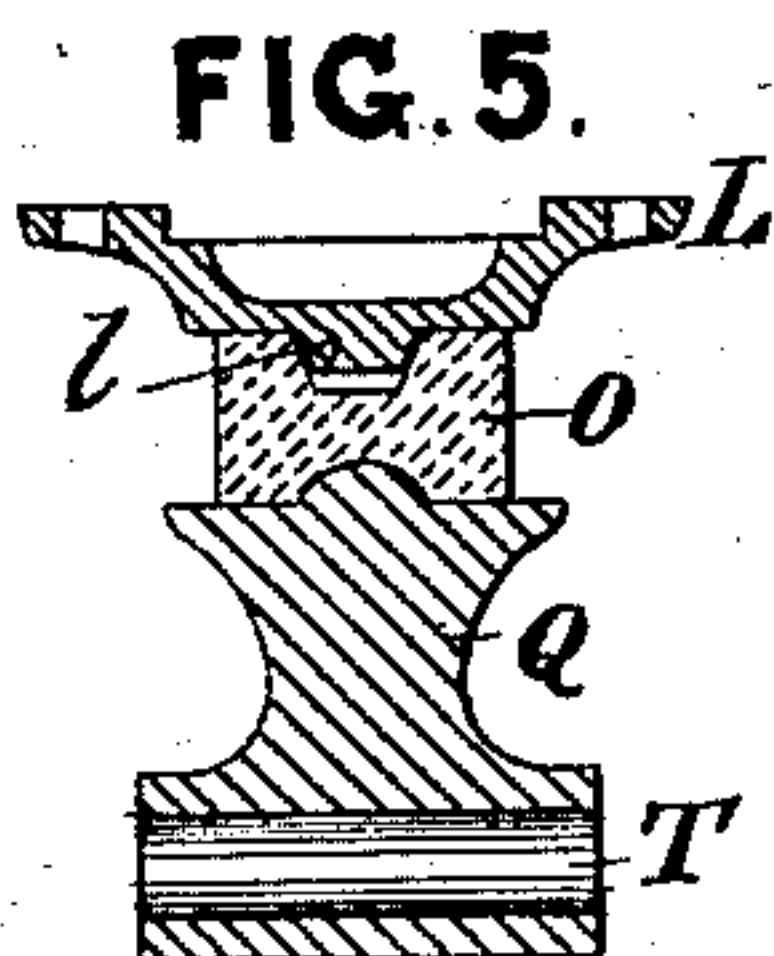
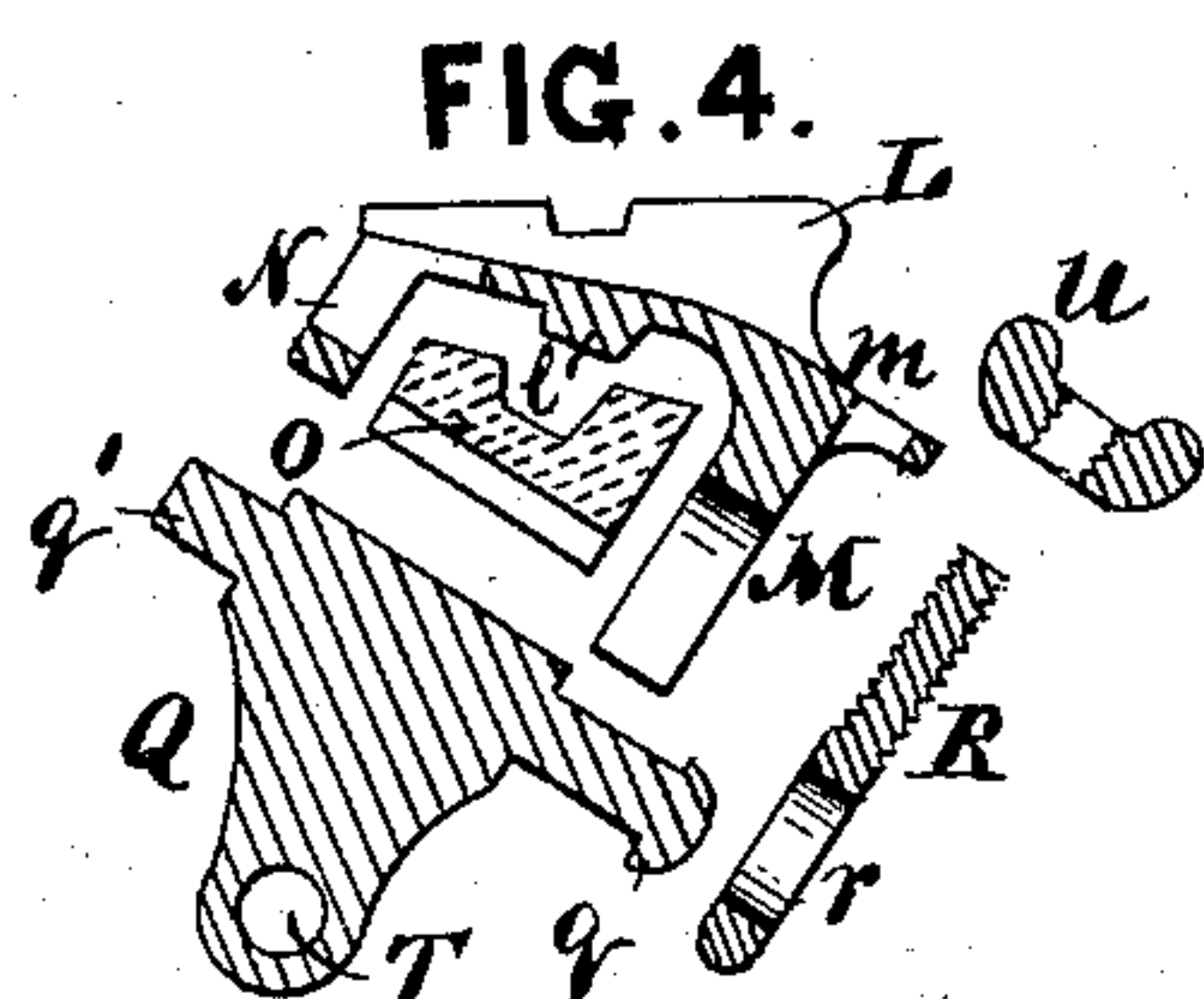
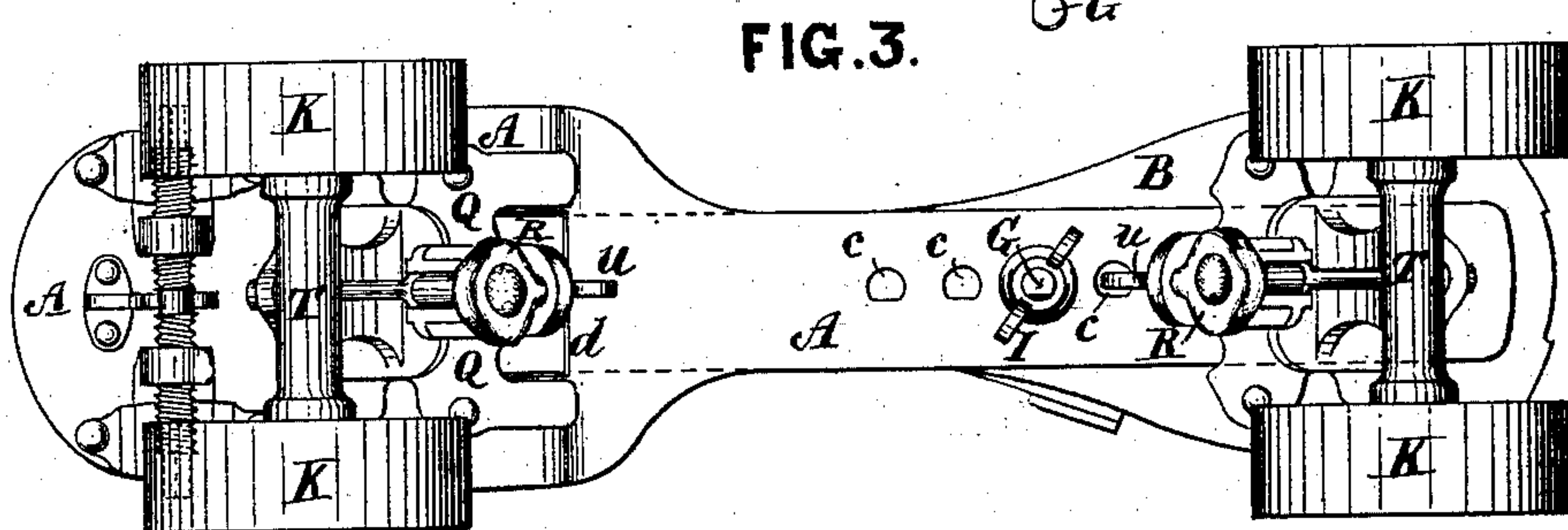
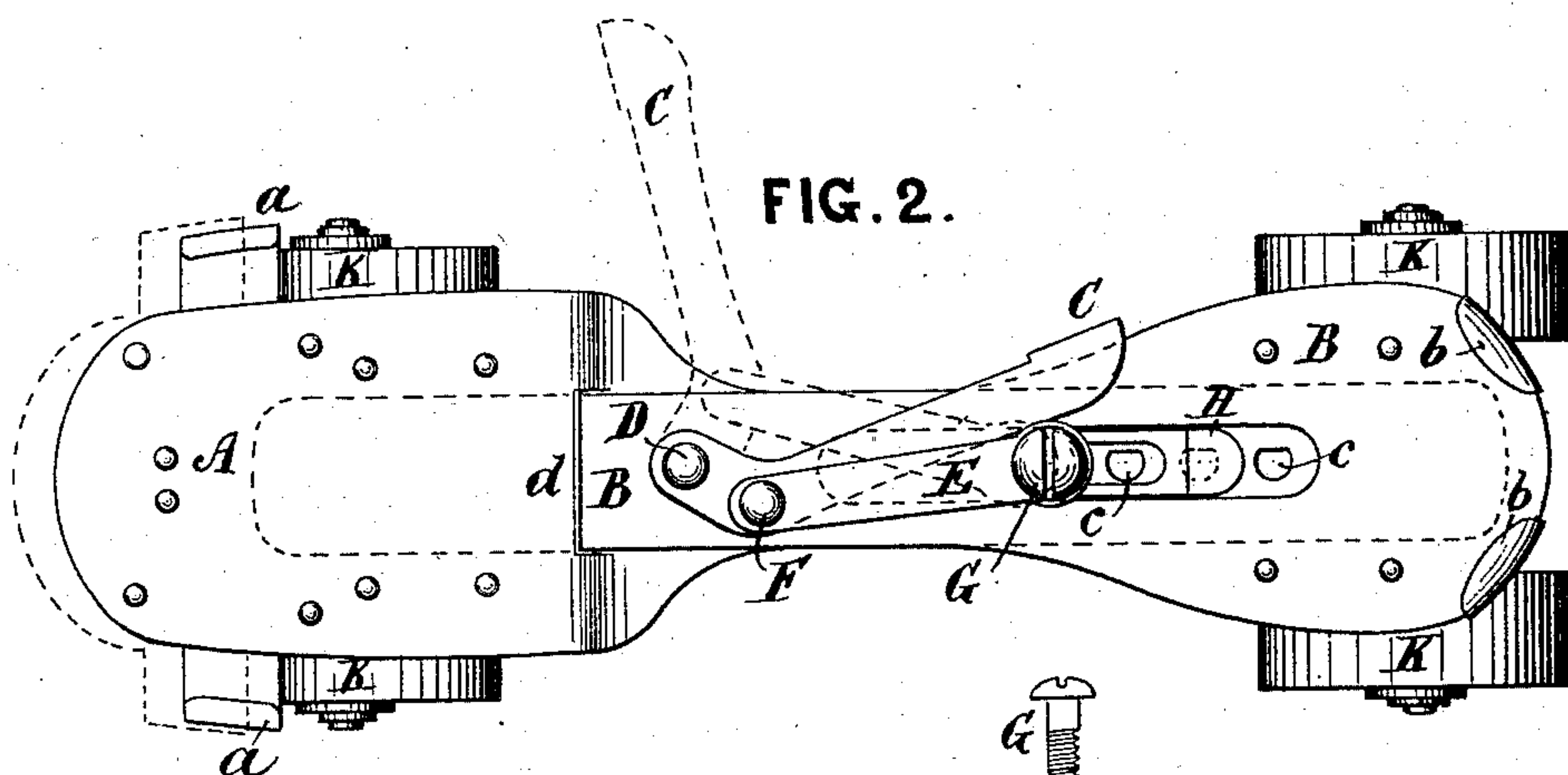
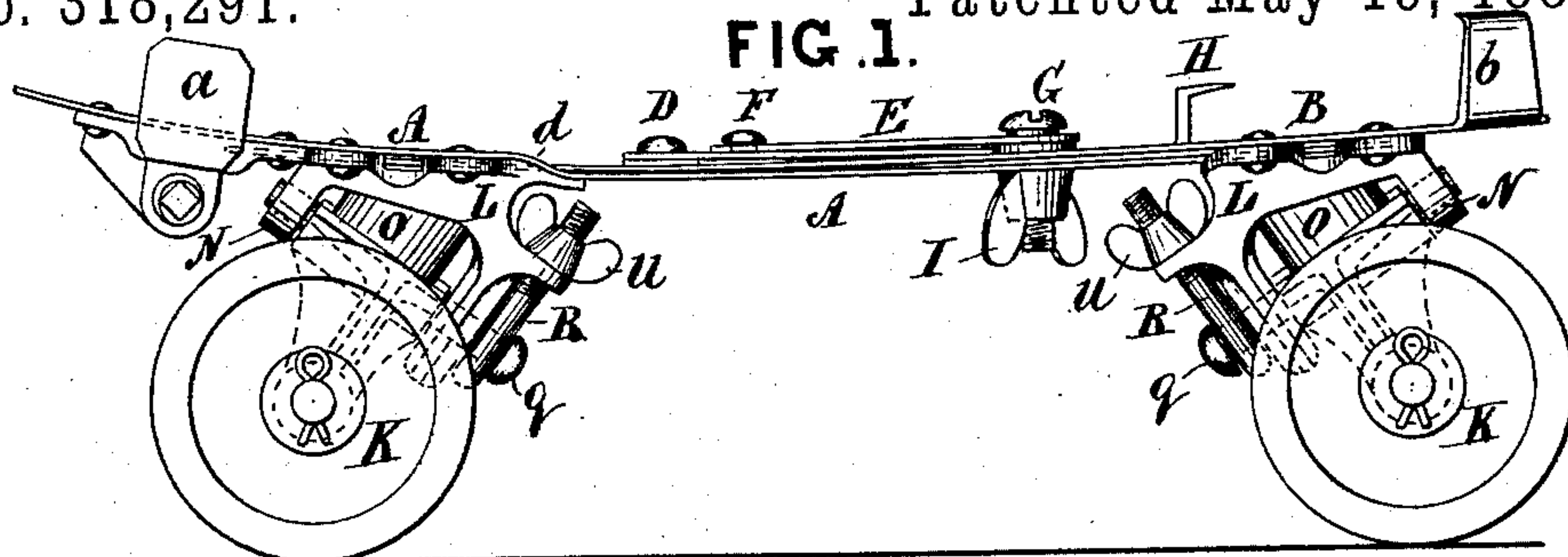
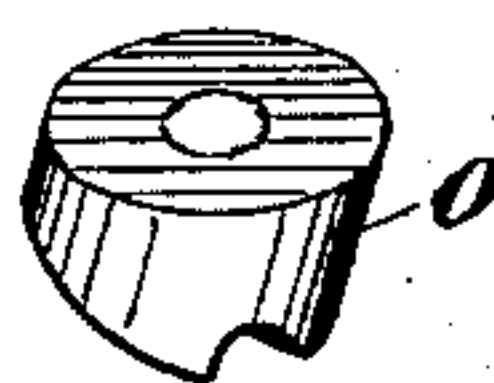


FIG. 6.



Witnesses.

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UNITED STATES PATENT OFFICE.

CADWALLADER M. RAYMOND, OF BOSTON, MASSACHUSETTS.

ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 318,291, dated May 19, 1885.

Application filed July 30, 1884. (No model.)

To all whom it may concern:

Be it known that I, CADWALLADER M. RAYMOND, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Roller-Skates, of which the following is a specification.

My invention relates to certain improvements in roller-skates, whereby an elastic bearing is provided for the heel and toe plates. An improved means is also provided for adjusting the tension of the elastic bearing, together with other improvements, more fully hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view of a roller-skate embodying my improvements. Fig. 2 is a top view of the same. Fig. 3 is a view of the under side of the skate. Fig. 4 is a vertical section of the hanger, the elastic cushion, and attachments, the parts being shown as separated. Fig. 5 is a transverse vertical section of the same, the parts being connected together. Fig. 6 represents the elastic cushion. Fig. 7 represents the adjusting device.

The main features of the skate are fully described in my Patent No. 313,622, and so need not to be described in detail.

A and B are respectively the toe and heel plates, the toe-plate A being bent at the point *d*, and having a slot through which the forward part of the heel-plate B passes, and thence between a frame riveted to the under side of the toe-plate, and the toe-plate. The toe-plate passes in a similar manner under the heel-plate, and between it and a frame that carries the hanger and elastic cushion.

At the rear of the heel-plates are the clamps *b b*, forming a portion of the heel-plate, and are bent upward and over inwardly at the upper ends, so as more securely to hold the heel portion of the boot or shoe.

In the heel-plate is an elongated slot of equal width throughout its length, and in this slot is fitted a slotted plate, H, which is bent upward at the rear end and projects to the rear, as shown in Fig. 1, so as to clamp the boot or shoe heel. It is capable of being adjusted to the size of the heel, and is held in position by means of the screw G and nut I.

C is a bent lever, pivoted to the heel-plate B at the point D, and at the bent portion F of the said lever is pivoted a flat bar, E, through the other end of which latter passes the screw-bolt G. The said screw-bolt also passes through the slotted plate H and through one of the holes, *c*, in the extended portion of the toe-plate A, and is secured by the nut I.

The holes *c* in the heel-plate B are not entirely circular, but have a segment removed at one side, as shown in Figs. 2 and 3, and the side of the screw G is of corresponding shape in section, so that when the screw is inserted in the holes *c* the segmental portion of the screw will bear against the corresponding segment of the holes *c*, and thus prevent the screw from turning—a difficulty that is liable to occur in the constant use of the skate.

The plate H and bar E and the toe and heel plates A B are secured together by means of the screw and thumb-nut G and I.

To the under side of the toe and heel plates A B are secured the frames L L, which are so constructed as to leave a space between them and the under side of the toe and heel plates, so as to allow the narrow portions of the said plates to pass freely through the said spaces. On the under side of the center of the plates L are studs or teats *l*, as shown in Figs. 4 and 5. The central recessed portions of the plates L incline longitudinally from the outer ends, as indicated in Fig. 4. At the outer end of each plate L is a short bracket, N, forming a loop, and at the inner end of each plate is a forked bracket, M, having at its upper end a projection, *m*, having a hole through it. Q is a hanger having on its upper ends the bearings *q q'*, and provided with a central longitudinal rib or projection on its upper side. O is an elastic cushion or spring, as shown in Fig. 6. The lower side is made tapering or beveled, and is provided with a central groove, which fits upon the rib on the upper part of the hanger Q. On the upper side of the spring O is a central depression, in which fits the stud *l* on the under side of the plate L, as shown in Fig. 5. The spring O is placed between the frame L and the hanger Q, and is held in position by means of the groove and depression fitting, respectively, the rib on the hanger and the stud *l* on the plate L. The

bearing q' of the hanger Q is fitted in the bracket N, and the bearing q in the forked bracket M.

R is a screw-bolt having an eye or opening, r , at one end, which fits loosely upon the headed bearing q of the hanger Q, while the other end of the said screw-bolt passes through a hole in a projection, m , of the frame L, where it is secured by means of a thumb-nut, U, by turning which the elastic cushion O can be compressed more or less, as required.

As the bracket M is made to straddle the bearing q of the hanger Q, it (the bracket) is capable of a vertical movement, by means of which an elastic bearing is afforded to the toe and heel plates vertically as well as laterally, and thus relieving the wearer of any unpleasant jarring occasioned by passing over any uneven surface or obstacle.

What I claim as my invention is—

1. The frame L, provided with the brackets M N, in combination with the hanger Q, provided with the bearings q q' , the screw-bolt

R, having eye r , to receive the bearing q , and nut U, and the elastic cushion O, as and for the purpose set forth.

2. The screw-bolt R, having eye r and nut U, the hanger Q, having bearings q q' , and the frame L, having bracket N, open bracket M, and projection m , all combined and operating as and for the purpose set forth.

3. The combination, with the plate L, having the central projection, l , of the tapering cushion O, provided with a central depression in one side and a groove in the other side, and the hanger Q, having a rib upon its upper flat surface to enter the groove in the cushion, substantially as described.

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

CADWALLADER M. RAYMOND.

Witnesses:

J. H. ADAMS,

J. C. LAHNON.