

No. 681,368.

Patented Aug. 27, 1901.

W. J. KENT.
ROLLER SKATE.

(Application filed Jan. 12, 1898.)

(No Model.)

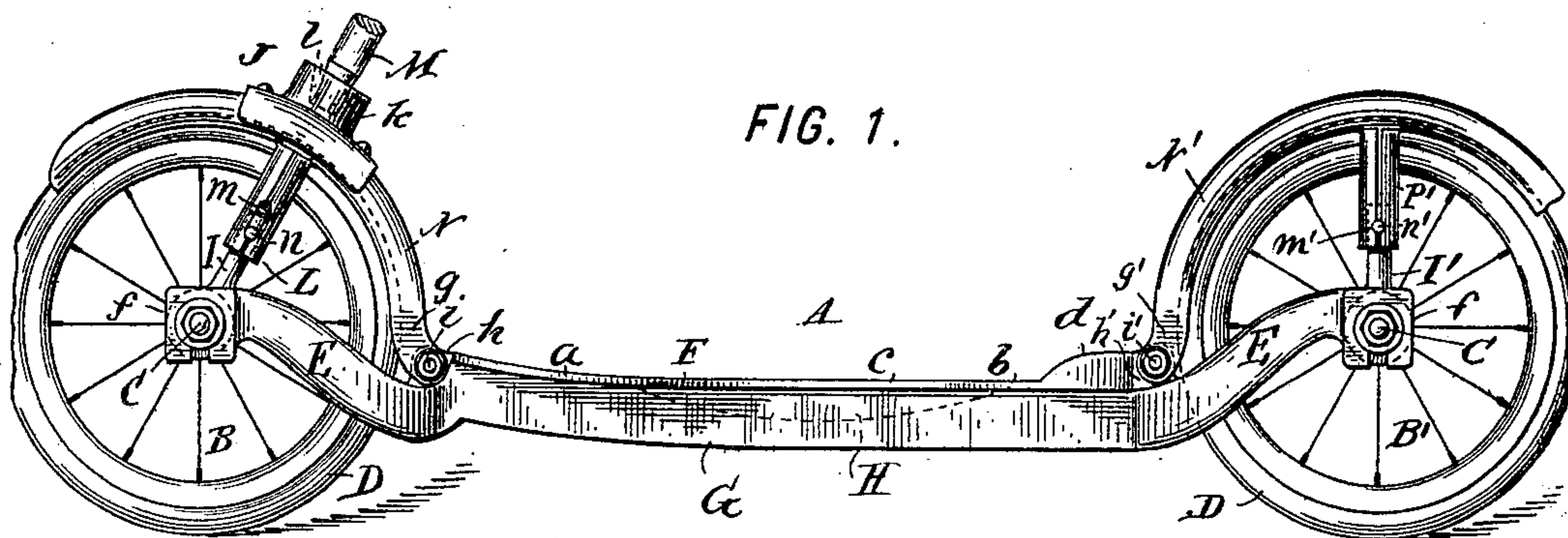


FIG. 2.

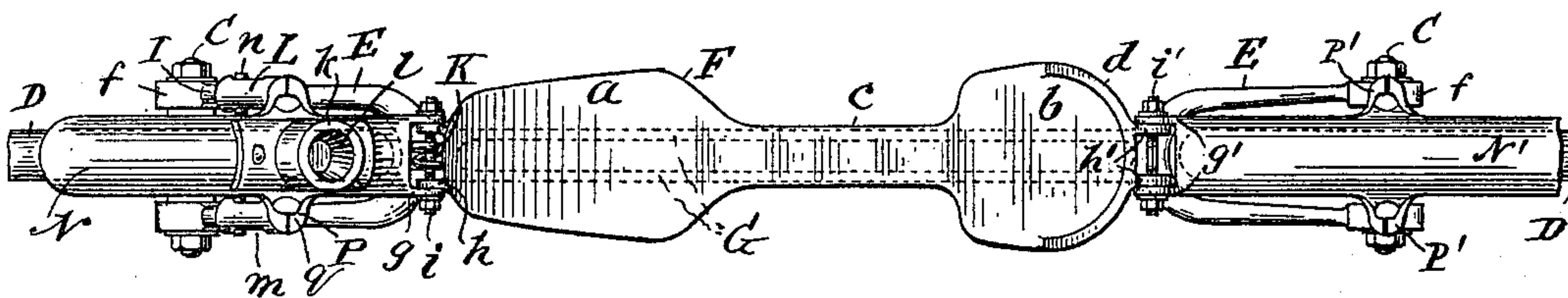


FIG. 3.

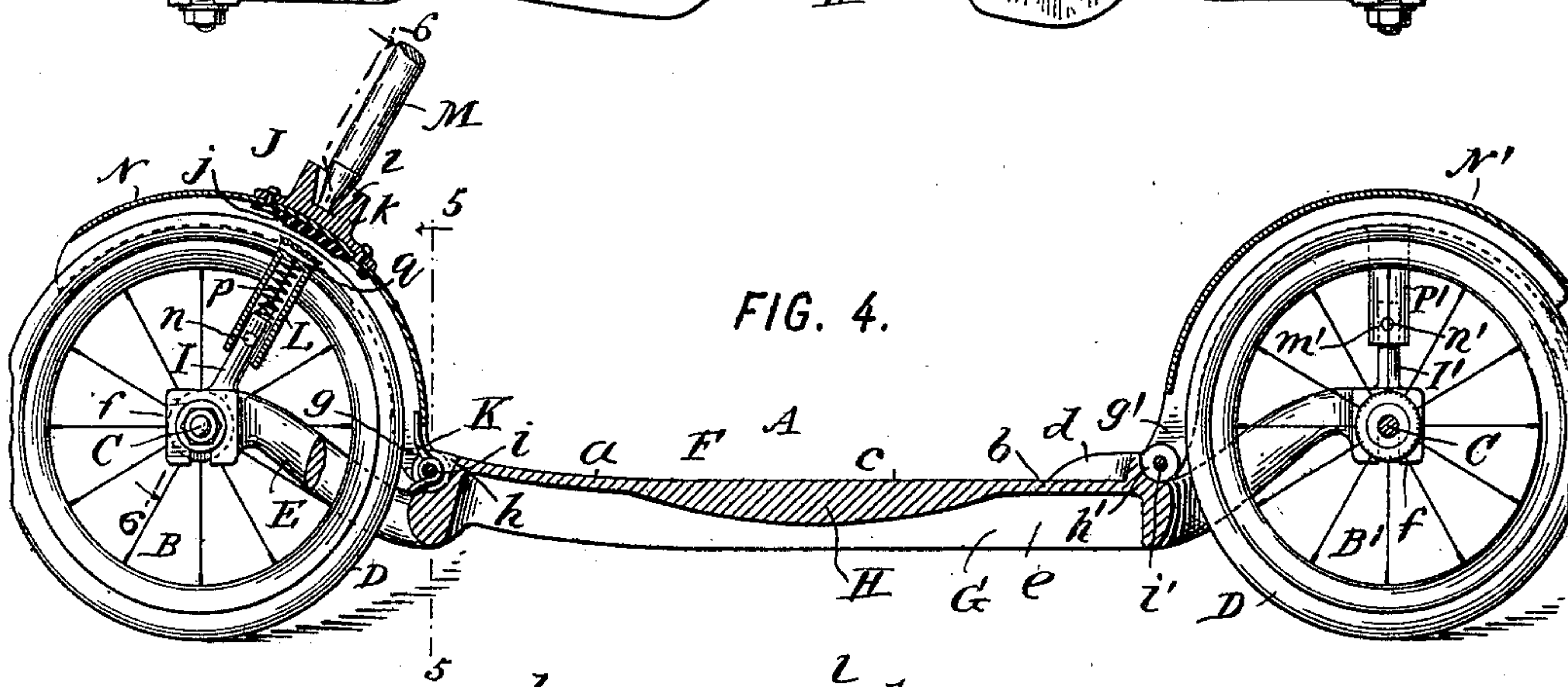
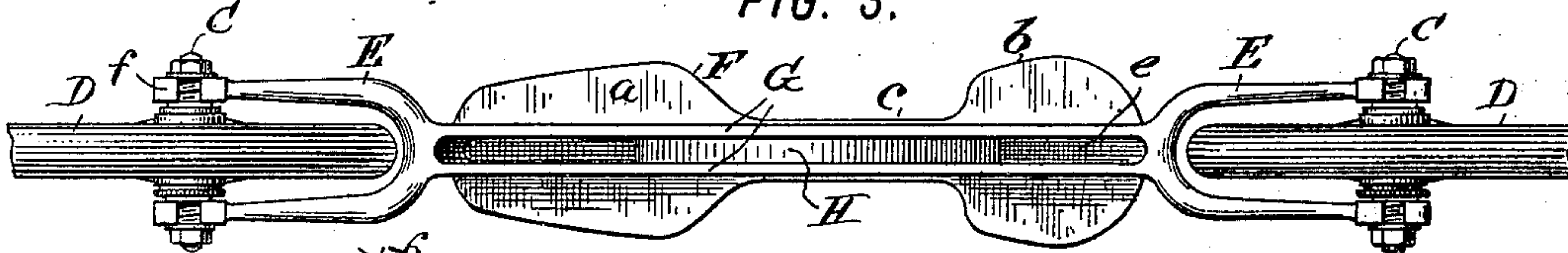


FIG. 5.

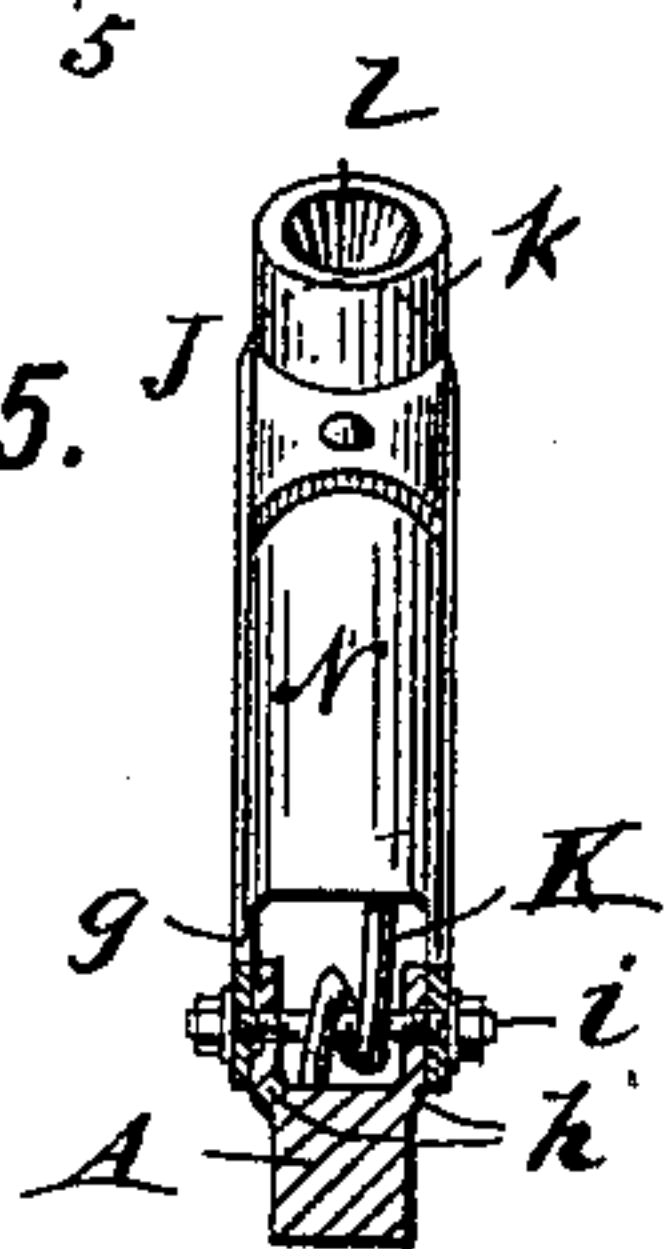
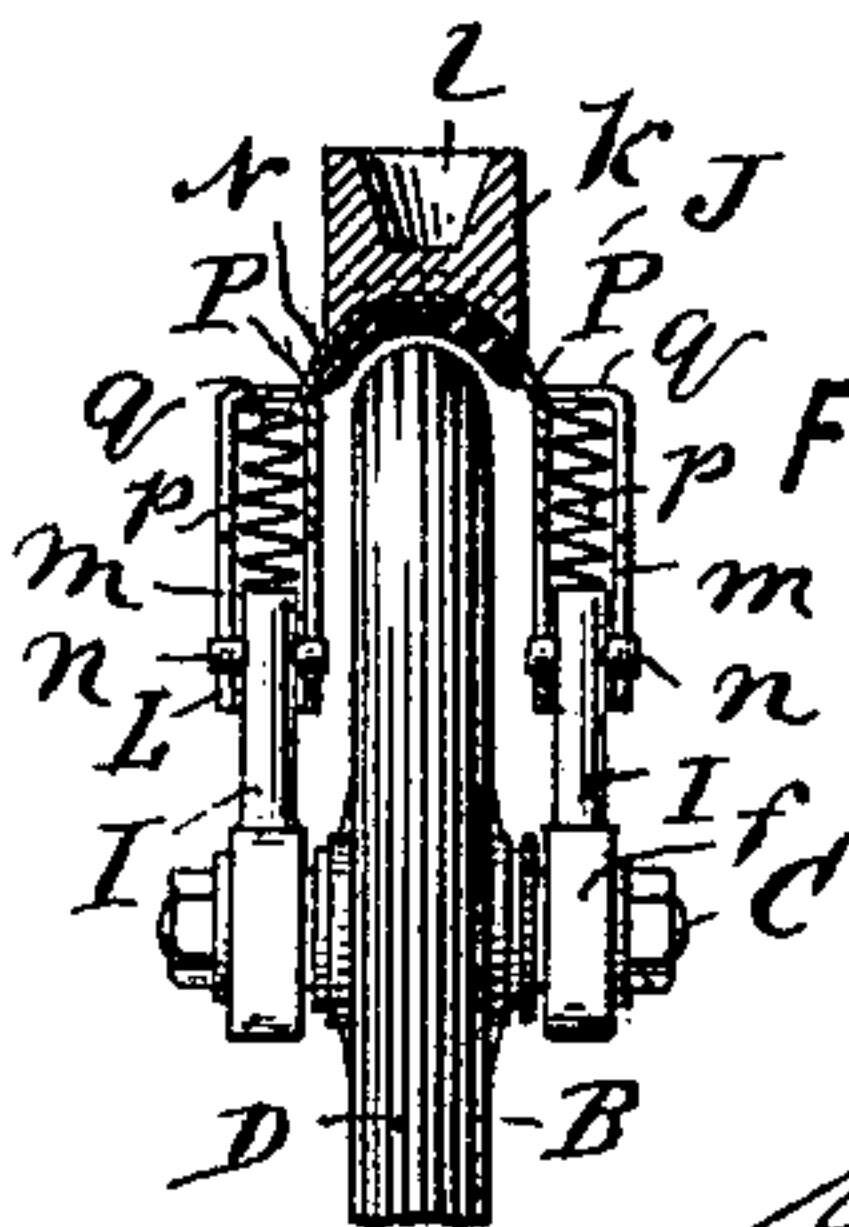


FIG. 6.



WITNESSES:

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ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 681,368, dated August 27, 1901.

Application filed January 12, 1898. Serial No. 666,403. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. KENT, a citizen of the United States, residing in Brooklyn, in the county of Kings and city and State of New York, have invented certain new and useful Improvements in Roller-Skates, of which the following is a specification.

This invention relates to roller-skates and similar devices, and aims to provide improvements therein.

Heretofore difficulty has been found in securing the requisite strength and lightness for the frames of roller-skates, and in the use of such skates much danger has been incurred when on downgrades or under rapid headway, because of the inability of the user to brake or check the speed of the skate against forward movement, the only means for checking speed being deflection of the skate toward the side, and this being impracticable for an effective and sudden checking under such circumstances.

My invention provides an improved construction of skate of greater lightness and strength than heretofore, an improved mud-guard therefor, and means whereby the user can check or control forward movement of the skate.

In carrying out the preferred form of the invention as applied to a skate having suspension-wheels at front and rear of the footpiece and a depending frame the footpiece of which is below the axles of the wheels I form the frame with two parallel ribs on the under face of the footpiece, extending from end to end thereof and meeting the wheel-forks, having a longitudinal groove between them, and I form the footpiece with a downward thickening in said groove between the toe and heel pieces and slightly overlapping each, and I provide a brake for controlling forward motion, which is exposed over the wheel and can be operated by the other foot of the user or by a cane or by hand, as desired, and I provide mud-guards for the wheels and certain other features of improvement, all of which will be hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a side elevation of a skate embodying the preferred form of my improvements. Fig. 2 is a plan view thereof. Fig. 3 is an under side

plan thereof. Fig. 4 is a vertical longitudinal section thereof. Fig. 5 is a transverse section thereof on the line 5 5 looking toward the front; and Fig. 6 is a transverse section on the line 6 6, all the views being fragmentary.

Referring to the drawings, let A indicate the frame of a skate; B and B', the front and rear wheels, respectively; C, their axles; D, their tires; E, the wheel-forks of the frame; F, the footpiece of the frame; *a*, the toe part thereof; *b*, the heel part thereof; *c*, the instep, and *d* the heel-flange. These parts may be of any usual or suitable construction, those shown being in common use. The wheels are the usual suspension-wheels, and the frame is, as ordinarily, a light metal or other suitable frame.

According to one feature of improvement my invention provides double ribs G beneath the footpiece of the frame and integral therewith, these ribs being thin deep flanges extending longitudinally of the footpiece, equidistant from its center between the front and rear forks. The ribs are spaced apart as far as the width of the instep *c* will permit and have between them a groove *e*.

According to another feature of improvement a thickening H is provided on the under side of the instep, which thickening overlaps the adjacent portions of the toe and heel parts and extends downward in the groove *e* a sufficient distance to bring the strength of the instep and of its junctions with the toe and heel parts up to the strength of the latter.

According to another feature of improvement I provide the frame with holders or guides I I' on the front and rear forks, from which my improved brake and my improved mud-guard can be held or guided. The guiding-holders are shown as cast integral with the bearing-heads *f* of the forks, the guides I being inclined rearward and the guides I' being vertical and each being shown as a cylindrical spur or arm.

According to the main feature of my invention I provide means for braking or checking revolution of one of the skate-wheels or movement of the skate forward, which means can preferably be used for any braking and can be operated from above the foot and by the hand through the intermediation of a

cane or by the other foot of the user of the skate. Preferably a brake J over the front wheel B is employed, which brake is held off the wheel by a spring K, is guided on the guide I by a sleeve L, and is operated by a cane or other presser M, which can be carried in the hand of the user. A mud-guard and shield N is preferably used in conjunction with the brake. As constructed the shield consists of an arc-shaped sheet-metal piece having ears *g* embracing the sides of lugs *h* on the frame and pivoted thereto by a bolt *i*, between which lugs the spring K is held by the bolt. The brake consists of a friction-piece or rubber pad *j*, fastened on the inside of the shield N, and a presser-piece *k*, fastened on the outside thereof and shown as having a socket *l*, in which the end of the cane M may be inserted to press the brake down against the wheel. The shield N has side wings P, which are bent down and curved into tubular form to form the guides L, which close over the end of the guides I and have slots *m* playing over pins *n* in the guides I. A spring *p* in each wing reacts against the end of the guide I and the top *q* of the guide L and assists the spring K to hold the brake off and prevent vibration. The slot *m* is long enough to permit the necessary play for braking and releasing, and the pin *n* serves as a stop and holder to limit the movement of the brake and prevent its displacement.

According to another feature of improvement I provide an improved mud-guard N', (shown as applied to the rear wheel and as consisting of a trough-shaped and arc-shaped plate enveloping the upper part of the rear wheel,) having wings *g'* embracing lugs *h'* and fastened thereon by a bolt I' to hold the lower edge of the guard, which plate has wings P', which are bent into tubular form and embrace the holder I', having a transverse hole *m'* engaged by a pin *n'*, which rigidly holds the guard on the guide.

The frame A, shield N, guard N', and piece *k* will best be constructed of aluminium, thus securing lightness and strength.

In use the ribs J and thickening H will give great strength to the portion of the frame A, taking up all the strains of use after the manner of a truss, while being lighter in weight than the single rib heretofore employed, and securing a uniformity of strength throughout the length of the footpiece, thus avoiding danger of breakage heretofore existing at the instep. The brake and its shield and the mud-guard will insure against throwing of dirt onto the feet or clothes of the user. The

mounting of these parts will prevent vibration or noise during running. No interference with the free running of the skate will be caused by the brake, since this is ordinarily held inactive. At any time the user can apply the brake to prevent either any movement at all of the skate or to retard movement in any direction. If running downhill, a slight pressure of the cane on the brake will suffice to reduce the speed, or the brake may be depressed by raising one foot and pressing its skate on the brake of the other foot, or it may be depressed by any other suitable means which will bring it under the control of the operator.

It is an especially advantageous feature of my invention that the brake is capable of being manipulated by the hands of the user without requiring leaning over or reaching down to the foot.

It will be seen that my invention provides improvements which can be readily and advantageously availed of, and it will be understood that the invention is not limited to the particular details of construction, arrangement, and use, nor to the particular combination of features set forth as constituting its preferred form, since my improvements can be employed in whole or in part, according to such modifications as circumstances or the judgment of those skilled in the art may dictate, without departing from the spirit of the invention.

What I claim is—

1. For roller-skates and the like, a frame A having a footpiece F, having a toe-plate *a*, heel-plate *b*, and narrow instep *c* between said plates, said frame having wheel-forks at the ends of said footpiece, two ribs on the bottom of said footpiece extending between said forks, and a thickening H on the bottom of said footpiece between said ribs and throughout the length of said instep, and overlapping said toe and heel plates.

2. In roller-skates and the like, the wheels, in combination with a frame having wheel-forks carrying the wheels, and having upwardly-projecting holders I' on one of said forks, of a mud-guard for one of the wheels consisting of a plate over the wheel having wings formed into socket-pieces P' receiving and fixed to said holders.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

WILLIAM J. KENT.

Witnesses:

GEORGE H. FRASER,
THOMAS F. WALLACE.