

(Model.)

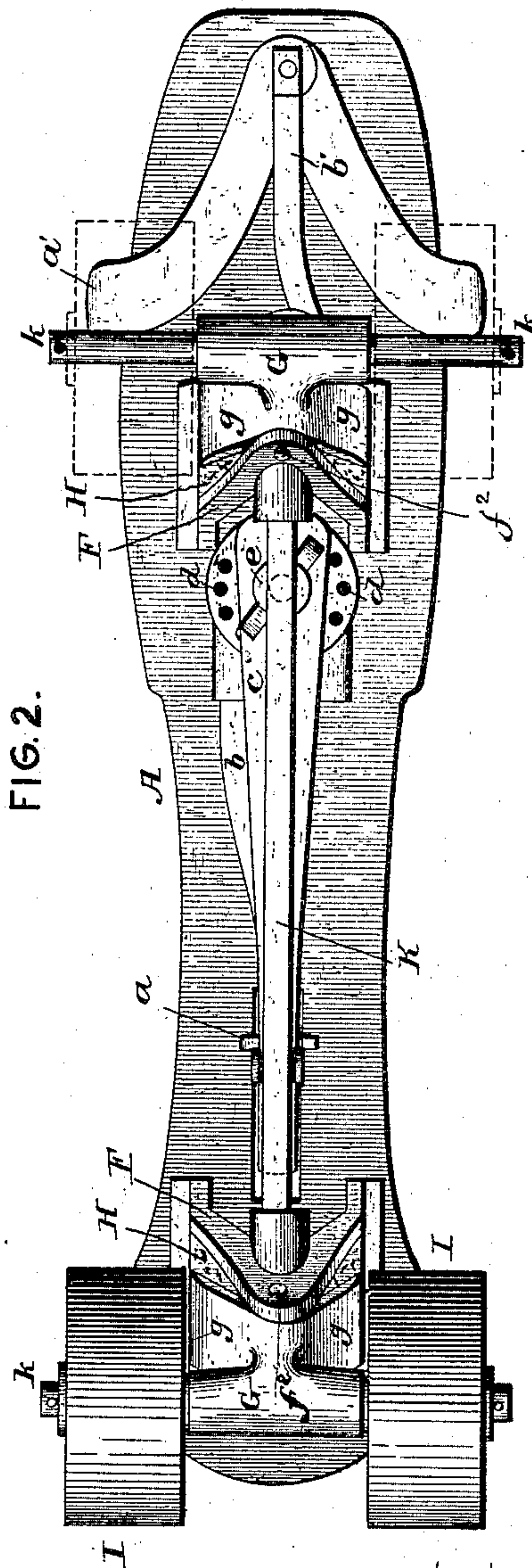
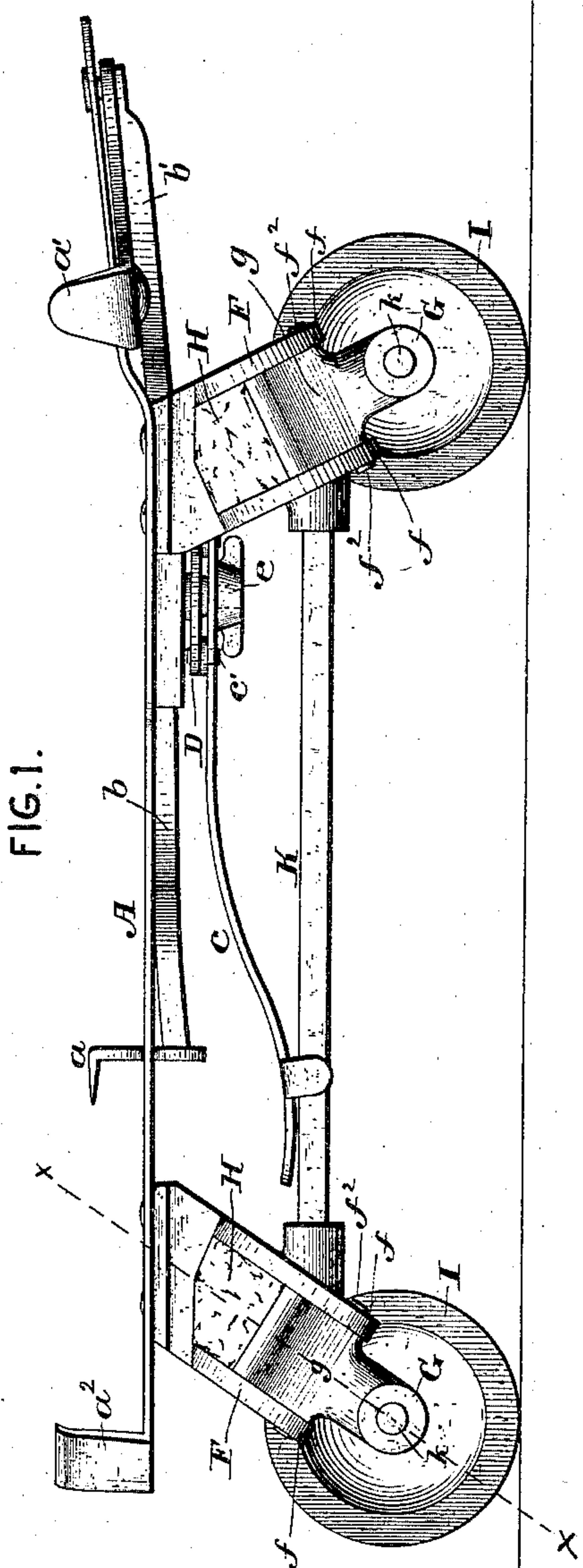
2 Sheets—Sheet 1.

P. J. DOHERTY.

ROLLER SKATE.

No. 313,815.

Patented Mar. 10, 1885.



ATTEST-

J. Henry Kaiser.

Geo. T. Smallwood

INVENTOR.

Patrick J. Doherty

by L. Seane.

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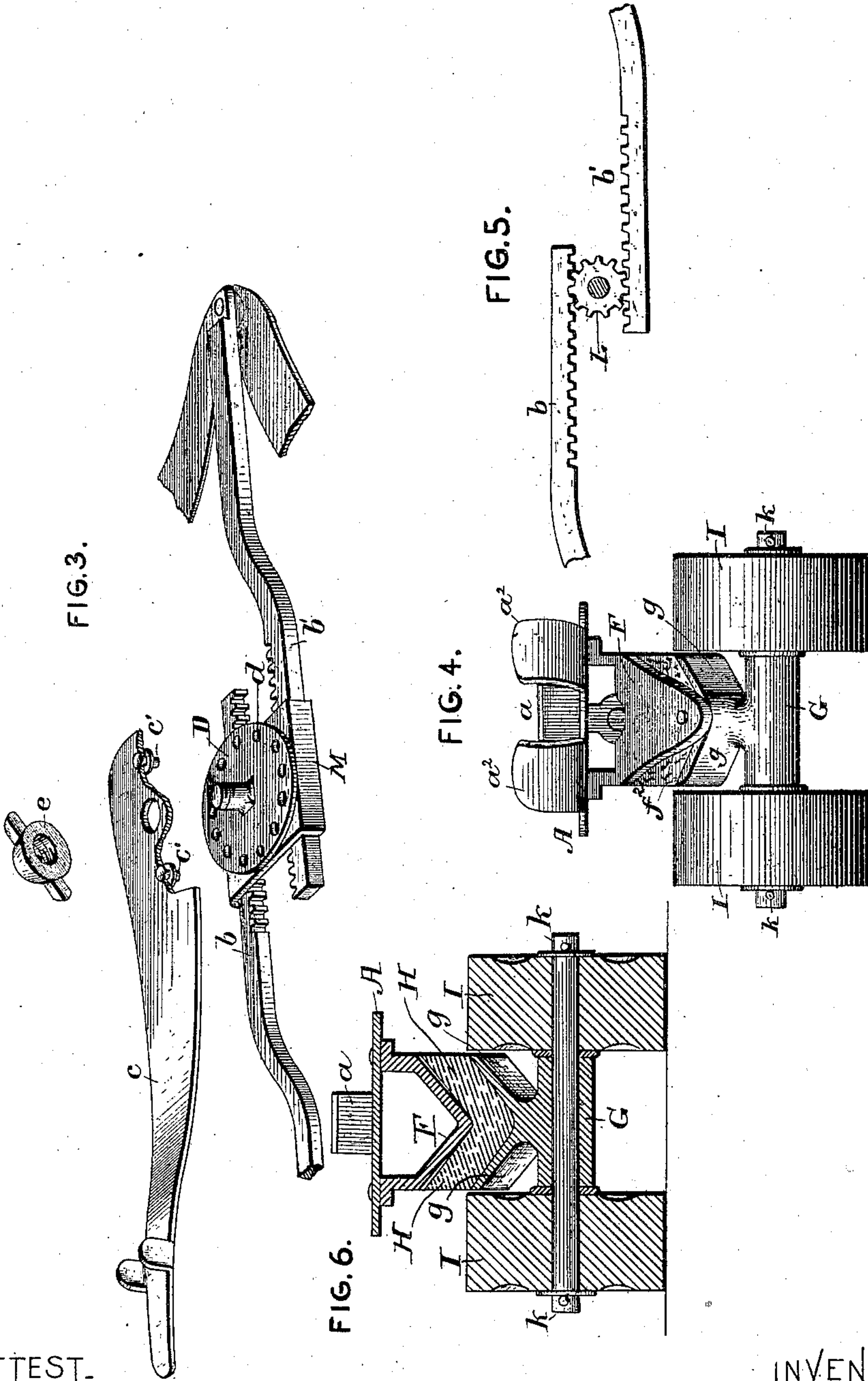
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UNITED STATES PATENT OFFICE.

PATRICK J. DOHERTY, OF CHELSEA, MASSACHUSETTS.

ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 313,815, dated March 10, 1885.

Application filed May 23, 1884. (Model.)

To all whom it may concern:

Be it known that I, PATRICK J. DOHERTY, a citizen of the United States, and residing at Chelsea, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Roller-Skates, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a side elevation of this device, the wheels on the near side removed. Fig. 2 is a bottom plan view showing the means for actuating the rack which controls the movement of the clamps. Fig. 3 is a like view of same parts separated to show the detail of construction. Fig. 4 is an elevation of the end of the skate. Fig. 5 is a detail showing cog and racked ends of the bars which move the clamps. Fig. 6 is a sectional view on line *x x*, Fig. 1.

This invention relates more particularly to improvements in parlor or roller skates; and the novelty consists in the means for actuating the clamps which bind the skate to the foot, and in the peculiar manner in which the rollers are attached to the foot-piece, and in the general details of the construction and combination of the parts, all as will now be more fully set out and claimed.

In the accompanying drawings, A denotes the piece on which the foot or shoe is placed; *a* and *a'*, heel and fore clamps, and *a''* the fixed heel-stops. The clamps are actuated by the rack-bars *b b'* and the handle *c*, with its proper intermediate connections—for the most part as in my patent of June 12, 1883. The plate M, with its bent edges, serves at once to hold the bars *b b'* in their proper position, and as a guide for the back-and-forth movement of said bars. But in order to better regulate the operation of the handle *c*, there is provided a disk, D, placed on the upper part of the stem of the cog L, which acts on the rack-bars *b b'*, and is placed between the cog and the end of the handle. This disk has perforations *d* around the inside of its edge, into which the spurs *c'* of the handle are fitted on opposite edges. The thumb-screw *e* on the upper end of the cog-stem holds all the parts together.

By adjusting and fixing the spurs in any desired perforation the fore and heel clamps can be adapted for boots or shoes of different sizes,

the position of said bars when the movement begins being easily regulated by the position in which the spurs *c'* are placed in the perforations *d*, so that the clamps *a a'* can be made to fit different-sized feet.

Under the heel, and also under the fore part of the foot-piece A, is secured a V-shaped piece, F; also, under the front and back, respectively, of the foot of the skate is a V-shaped casting, *g*, which is an upward extension of the axle sleeve G.

Between the castings F and *g* is an elastic bearing or packing, H. Each pair of rollers or wheels I is properly secured to an axle, *k*, which in each instance passes through a sleeve, G. Thus each pair of rollers or wheels will have some rocking movement on its pivot *f''*.

It has been found very necessary in devices of this kind that the skater should be able to will to move or rock the foot out of line on either side with respect to the roller. By the construction above described this can be easily accomplished.

The elastic bearing packing is sufficiently yielding to allow the desired motion, but at the same time is sufficiently firm to give, in all ordinary use, as firm a horizontal position to the foot as can be needed.

Between the rear and front castings F F is the reach or connecting-bar K, which serves to make the structure firm. The skate would operate very well without said bar; but I prefer to use it. On this bar the outer end of the handles *c* can be caught.

I am aware that it is not new to provide an elastic packing between the foot portion of the skate and the rollers, and do not broadly claim such construction as my invention.

Having now described my invention, what I consider new, and desire to secure by Letters Patent, is—

1. The combination of the handle *c*, having the spurs *c'*, with the disk D, perforated at *d*, the cog and rack bars, and clamps, substantially as described.

2. A V-shaped casting fixed to the foot-plate and having a second V-shaped casting pivoted to it at right angles, with an elastic bearing between the two, combined with the axle and rollers, substantially as described.

3. In a roller-skate, the combination of the

axle-sleeve G and V-shaped casting *g*, cast entire, with the V-shaped casting F, rigidly secured to the foot-plate and adapted to receive the end of a bar, K, and an elastic bearing,
5 H, between said castings, said castings being connected at right angles to each other by a longitudinally-inclined pivot, substantially as described.

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

PATRICK J. DOHERTY.

Witnesses:

ELLA E. SMITH,
L. C. SOUTHARD.