(No Model.)

## C. P. KRAMER & W. J. SNIDER.

ROLLER SKATE.

No. 322,617.

Patented July 21, 1885.

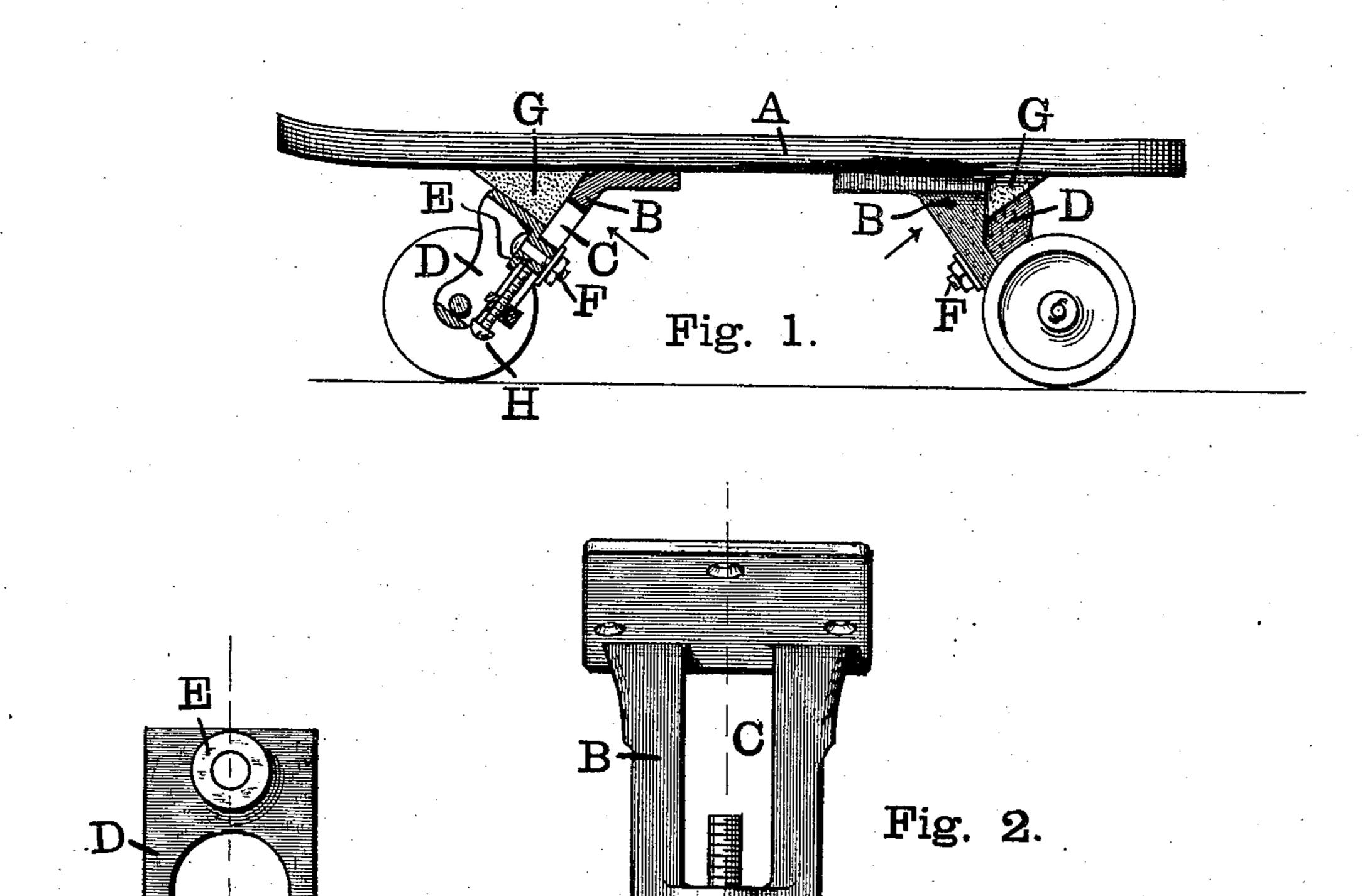


Fig. 3.

Witnesses: John Revords. charles P. Kramer morthington J. Snider Inventor by James M. SEE.

Attorney

## United States Patent Office.

CHARLES P. KRAMER, OF HAMILTON, AND WORTHINGTON J. SNIDER, OF MADISON CITY, ASSIGNORS OF ONE-HALF TO JAMES E. CAMPBELL, OF HAMILTON, OHIO.

## ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 322,617, dated July 21, 1885.

Application filed April 6, 1885. (No model.)

To all whom it may concern:

Be it known that we, CHARLES P. KRAMER, of Hamilton, Butler county, Ohio, and WORTH-INGTON J. SNIDER, of Madison City, Butler county, Ohio, have invented certain new and useful Improvements in Roller-Skates, of which the following is a specification.

This invention pertains to roller-skates; and it relates to the construction of the truck mechanism, as will be fully understood from the following description, taken in connection with the accompanying drawings, in which—

Figure 1 is a side view of a roller-skate fitted with our improved trucks, the forward truck being shown in vertical section; Fig. 2, a face view of one of the hangers enlarged, and Fig. 3 a face view of one of the housings enlarged.

The direction of view of Figs. 2 and 3 is in-

20 dicated by the arrows in Fig. 1.

Each of our trucks carries two floor-wheels, and each skate is to be provided with two of these trucks, as usual, the housings which carry the wheel-axles being fitted to oscillate upon the hangers as the skater's foot is tipped, and the axes of oscillation through which this tipping motion takes place are arranged angularly, as is usual, so that the axles are thrown into non-parallel planes as the skater's foot is tipped, thus causing the skate, when tipped, to advance in a curved path. A single one of the trucks will be described, and it is to be understood that both the rear and forward trucks of the skate are alike.

In the drawings, A represents the ordinary foot-piece of a skate; B, a hanger-plate projecting angularly downward from the same, with its face transverse to the length of the skate; C, a slot through the hanger-plate; D, the housing carrying the axle of the wheels, the face of the housing lying against the face of the hanger-plate; E, a circular boss formed upon the face of the housing, and fitting and projecting through the slot in the hanger-plate; F, a bolt passing through the boss and provided with a washer, the same serving to hold

the housing fairly against the hanger-plate without clamping it so tightly as to prevent the one part oscillating with reference to the other; G, a triangular block of rubber dis- 50 posed between the skate-bottom and the top of the housing, and prevented from displacement sidewise by flanges on the hanger; H, a set-screw in the hanger projecting up into the slot and bearing with its point against the boss 55 of the housing. The weight of the skater tends to depress the skate-bottom and hangers, and causes the hangers to slide slightly downward with reference to the housings and their bosses. This tendency is restricted in an elastic man- 60 ner by the rubber blocks G. The entire weight of the skater is thus supported upon these blocks. When the skater's foot is tipped, one side of the rubber block becomes compressed in an obvious manner, and the rubber blocks 65 thus serve as the elastic resistance to the tipping motion. The set-screws H serve to prevent the housing from moving downward when the skater's foot is lifted, and they serve as a means for pressing the housing upward, so as 70 to put the rubber blocks under any desired degree of normal compression, whereby the tension of the springs may be adjusted to suit the skater's fancy. The rubber blocks are inserted by retracting the screws H and allow-75 ing the housings to descend. A cube of rubber cut diagonally forms two of the rubber blocks, which are thus seen to be very economical in the use of the material, while their form and disposition present broad surfaces 80 to meet the compressing action.

We claim as our invention—

In a roller-skate, the combination of hangerplate B, provided with slot C and set-screw H, the housing D, provided with the boss E and 85 bolt F, and the rubber block G, substantially as set forth.

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WORTHINGTON J. SNIDER.

Witnesses:

J. W. SEE, W. A. SEWARD.