J. S. LASH.

Roller-Skates.

No. 218,035. Patented July 29, 1879.

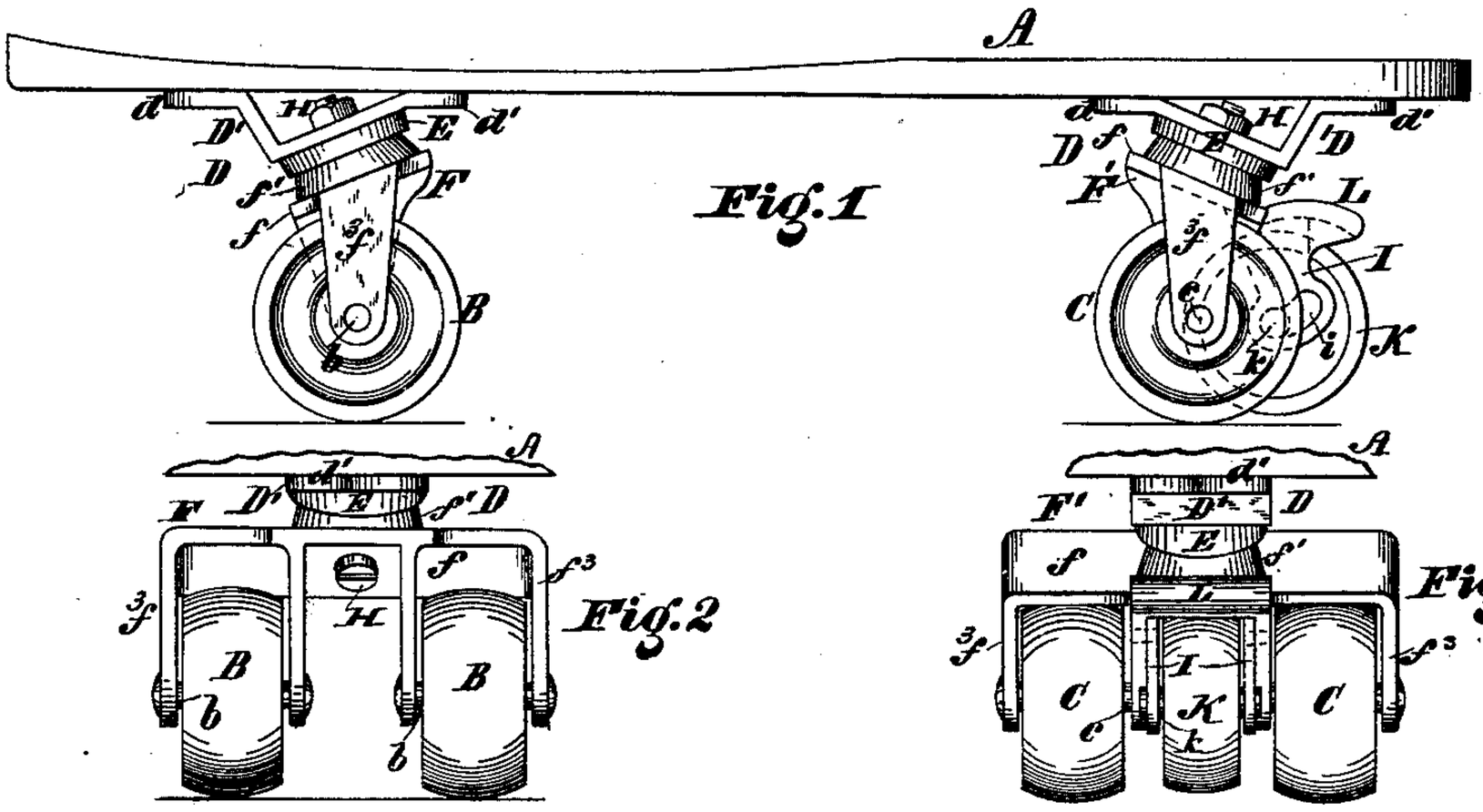

Fig. 1

Fig. 2

Fig. 3

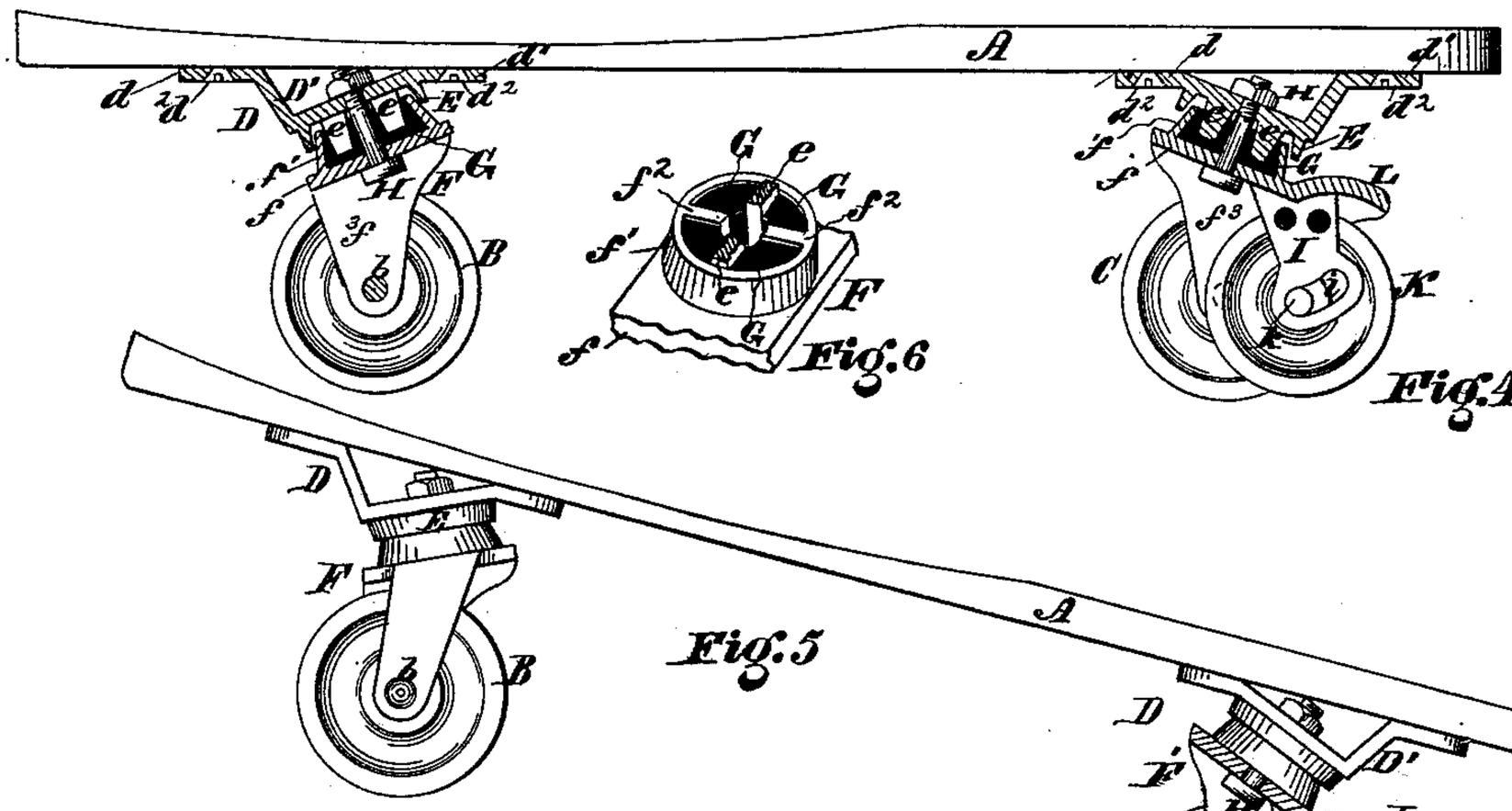

Fig. 5

Fig. 6

Fig. 4

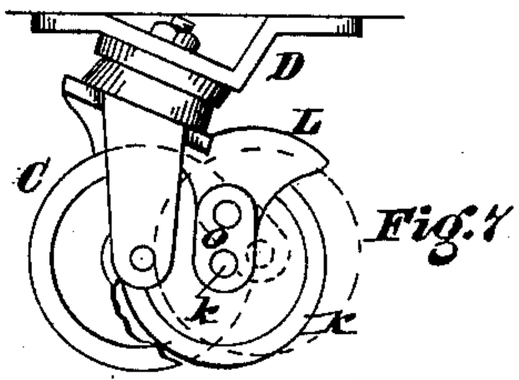

Fig. 7

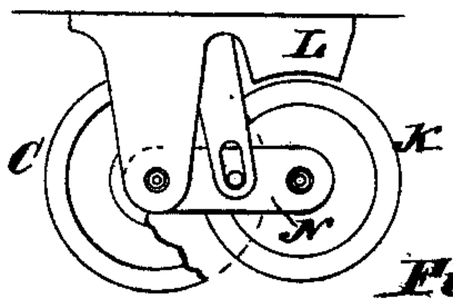

Fig. 8

Fig. 9

WITNESSES:

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JOHN S. LASH, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN ROLLER-SKATES.

Specification forming part of Letters Patent No. **218,035**, dated July 29, 1879; application filed April 15, 1879.

To all whom it may concern:

Be it known that I, JOHN S. LASH, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Roller-Skates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a side elevation of my invention. Figs. 2 and 3 are, respectively, rear elevations of front and rear roller-brackets and rollers. Fig. 4 is a longitudinal vertical section. Fig. 5 is a side elevation, showing the skate raised to bring the brake-roller in contact with the brake-shoe. Fig. 6 is a detail sectional perspective, and Figs. 7, 8, and 9 are side elevations, of modifications of brake-rollers.

My invention has relation to means for causing the rollers to travel in curves when weight is thrown on one side or the other of the skate; also, to a brake, which is brought into action only when the skate is moving forwardly and the front or toe thereof is elevated.

My improvements consist in the peculiar construction and combination of parts hereinafter fully described.

Referring to the accompanying drawings, A indicates the stock or foot-plate of a roller-skate, and B B and C C the rollers secured thereto. D D are brackets, having lugs d d^1, through which fastening-screws d^2 d^2 pass into the stock A. The portion of each bracket D between the lugs d d^1 consists of an L-shaped plate, D′, arranged at an angle to the stock A, and formed with a socket, E, in which are radial partitions e e.

F F′ are casters, having inclined plates f f, with sockets or annular flanges f^1 f^1, adapted to fit and turn in the sockets E E, formed with partitions e e at right angles to the partitions f^2 f^2, and having links f^3 f^3, which receive the axles b c of the rollers B C.

G G are segments of india-rubber fitted in the sockets f^1 f^1 between the partitions e and f^2, and H H are bolts passing in inclined directions through the plates D′ and f, and forming the spindles of the roller-casters. Said spindles incline, as shown, in opposite directions toward the heel and toe of the skate respectively.

When in use, if the weight of the skater's body be thrown on either side of the stock, the rollers will move in curved lines, and when such weight is released the resiliency of the segments will restore the rollers to parallelism with a straight line drawn longitudinally through the middle of the stock A.

I I are links rigidly fastened to the casters F′ between the rear rollers, C C, having slotted bearings i i for the reception of the axle k of a roller, K, which latter is of less diameter than the rollers C C. L is an extension of or attachment to the plate f, which forms a brake-shoe for said roller K.

The slots i i incline upwardly toward the brake-shoe L, so that when the axle k of the roller K is in the forward part of said slots (its normal position) said roller will be out of contact with said brake-shoe; but when the said axle moves into the rear part of said slots the periphery of said roller K will be brought into frictional or brake contact with said shoe L.

When the rollers B C are on the ground or floor the axle k will be forward in the slots i i. Now, if the skate be moving forwardly, and the toe or front be elevated and the rollers B raised sufficiently, the periphery of the roller K will meet the floor or ground, and said roller K be moved far enough to cause it to come in contact with the brake-shoe L, the axle k moving backwardly to the rear extremity of the slots i i. This instantly applies the brake and checks the forward movement of the skate, thereby obviating wholly, or in great measure, the tendency to have one's heels slip from under one when the toe is raised in going forward. If, however, the toe be raised in going backward the brake will not be applied, the direction of motion then causing the roller K to move toward the toe, so as to be out of possibility of contact with shoe L, the axle k then being in the forward part of the slots i i.

In Fig. 9 I have shown a modification, wherein roller K is hung in links m m, swiveled on

a plate, M, fastened to the stock A. In this case the roller K is formed with a hub, K′, which brakes by frictional contact with shoe L.

In Fig. 8 is shown another modification, wherein links N N are swiveled on the axle, or in line with the axle of rollers C C.

In Fig. 7 is shown another modification, wherein swinging links *o o* are substituted for the slots *i i*.

What I claim as my invention is—

1. The combination of plate D′, having socket E, with radial partitions *e e*, and plate *f*, having socket or annular flange f^1, and radial partitions f^2 with connecting-bolt or spindle H, substantially as shown and described.

2. In combination with plates D′ and *f*, having sockets or annular flanges and radial partitions *e* and f^2 and connecting-bolt or spindle H, the india-rubber segments G, substantially as shown and described.

3. The combination, in a roller-skate, of a brake roller and shoe, constructed and arranged to come in contact when the toe of the skate is raised in going forward, substantially as shown and described.

4. The combination, with caster F′, of slotted hangers I I, or their described equivalent, brake-roller K, and shoe L, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 10th day of April, 1879.

JOHN S. LASH.

Witnesses:

SAML. J. VAN STAVOREN,
CHAS. F. VAN HORN.