

(No Model.)

S. M. TINKHAM.
Roller Skate.

No. 236,113.

Patented Dec. 28, 1880.

Fig. 1.

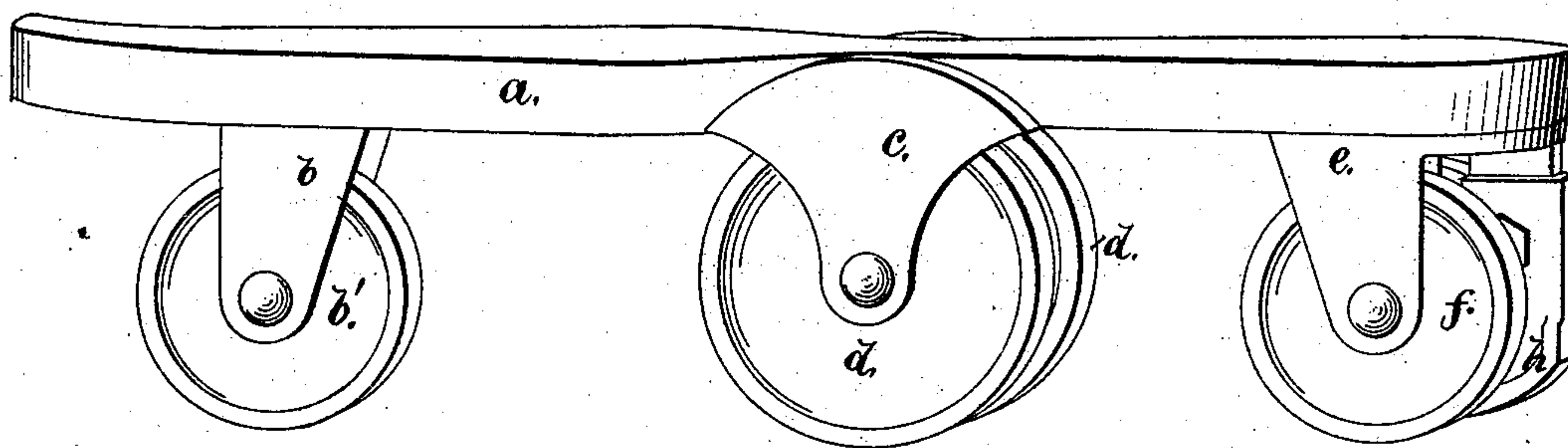


Fig. 2.

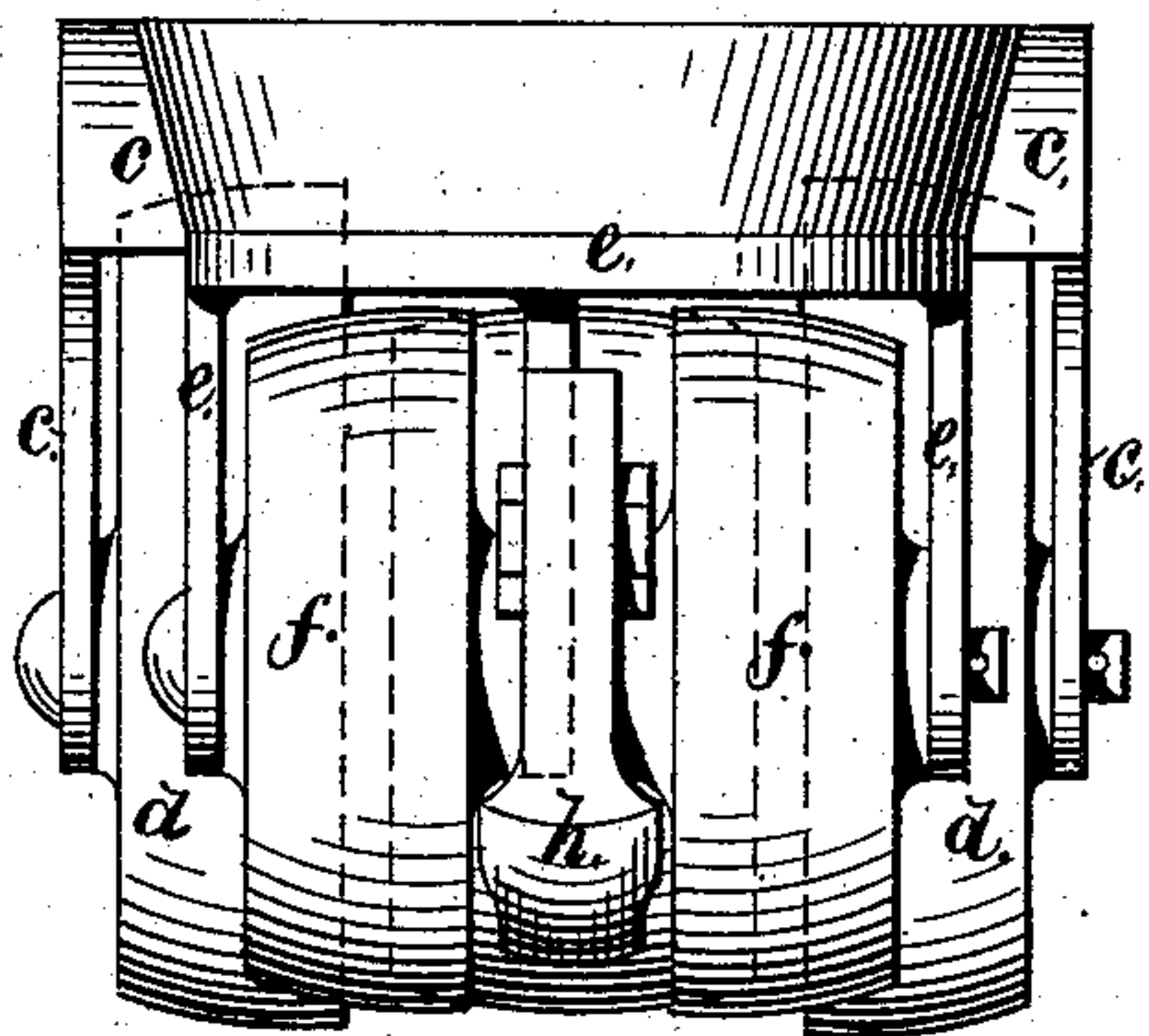
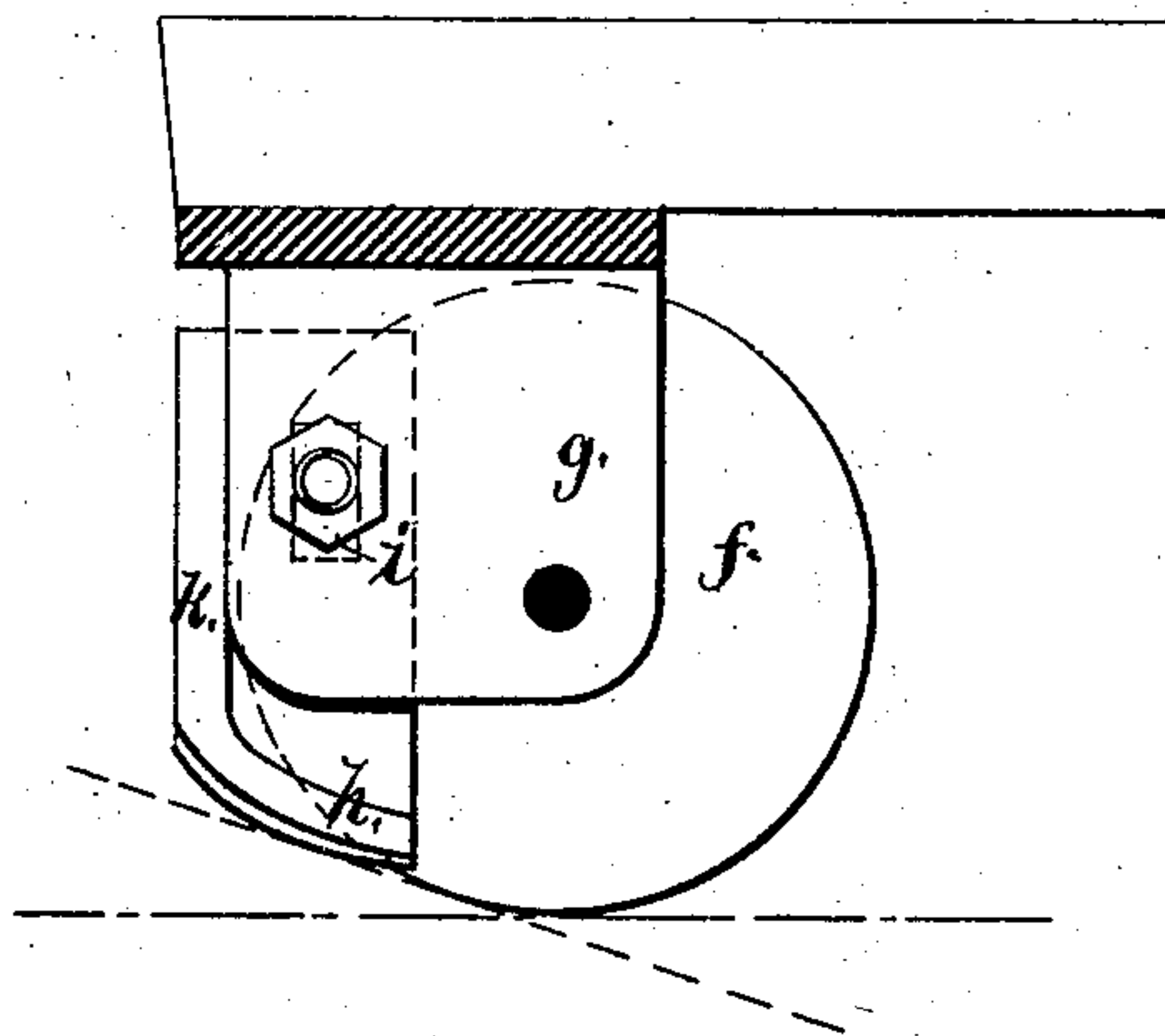


Fig. 3.



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UNITED STATES PATENT OFFICE.

SAMUEL M. TINKHAM, OF TAUNTON, MASSACHUSETTS.

ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 236,113, dated December 28, 1880.

Application filed May 31, 1880. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL M. TINKHAM, of Taunton, in the county of Bristol and State of Massachusetts, have invented a new and useful Improvement in Roller-Skates; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

The object of this invention is to facilitate the use of the roller-skate by beginners, to enable the skater to perform evolutions and turns more readily, reduce the resistance, and secure a firmer support to the skater.

The invention consists in providing a skate with five wheels or rollers, constructed as hereinafter specified, the two wheels near the center to be wider apart than the rear rollers and of larger diameter.

It further consists in providing an adjustable stop by which the rolling can be quickly arrested, and in curving the rim of the wheels or rollers, as will be more fully set forth hereinafter.

Figure 1 is a perspective view of my improved roller-skate. Fig. 2 is an end view of the same, and Fig. 3 is a view showing the adjustable stop.

In the drawings, *a* represents the foot-piece of a roller-skate, usually provided with straps or other means by which it is secured to the boot or shoe.

b is a bracket secured to the under side of the foot-piece *a*, at the toe or front end of the skate, to form a support for the axle of the wheel or roller *b'*.

c is a bracket secured to the narrow part of the foot-piece, below the instep of the boot or shoe, and, extending down, secures bearings for the two large wheels or rollers *d d*. The rollers are set as far as convenient apart, so as to give a firmer bearing to the skater.

e is a bracket forming a bearing at the heel end of the foot-piece for the rollers or wheels *f f*. This bracket is also provided with the central web, *g*, to which the adjustable stop *h* is secured by means of a screw passing through the elongated slot *i*, so that the stop may be adjusted to any desired height from the floor.

The stop *h* is provided with a projecting rim, *k*, which bears against the edge of the web *g*

to form a rigid support for itself. The lower end of the stop *h* is curved, and is made of a width about equal to the distance between the wheels *f f*, so as to secure a firm bearing-surface. The curved end of the stop may be covered with rubber or any other material, to prevent injury to the floor.

For new beginners the stop may be adjusted so as to be near the floor, when a slight raising of the toe will bring the stop in contact with the floor and stop the skate, thus preventing many falls, to which new beginners are liable.

The first result usual to a beginner attempting the use of roller-skates is the rolling of the skate from under the novice and a sudden fall of the individual. By my invention the stop *h*, by coming in contact with the floor, prevents the rolling of the skate, and enables the skater to recover his equilibrium.

To skaters familiar with the use of roller-skates the stop, even if raised considerably above the floor, is a great acquisition, as it enables them to stop themselves almost instantly, which, in many exercises, is of great importance, particularly so when the game of polo or other games are played on roller-skates.

The bearing-surface of the roller *b'* is curved so as to bear only near the center, and the bearing-surfaces of the wheels or rollers *d d* and *f f* are curved outward, so that the inner diameter of the same is larger than the outer, as is shown in Fig. 2. By this construction curves can be more readily described than when the bearing-surface is flat.

It is preferable to have the central wheels, *d d*, extend below the wheels *b'* and *f f*, so that the weight may be transferred to the central wheels only, to the central wheels and the front or toe wheel, or to the central wheels and rear or heel wheels, at the pleasure of the skater; or the central wheels may be at the same distance from the foot-piece as the heel-wheels, and the toe-wheel may be a slightly less distance from the foot-piece, so that the normal bearing is on the wheels *d d* and *f f*, and the front wheel, *b'*, may be used as desired. As the heel-wheels *f f* are closer together than the central wheels, *d d*, the bearing is more firm, and curves can be more readily described.

The skate can be used for ornamental or

fancy skating with more security and ease to the skater than skates as heretofore constructed.

5 Sheets of rubber or other elastic material may be placed between the metal brackets and the foot-piece to break the jar, and the wheels or rollers may be provided with rubber or other elastic tires.

10 By providing four wheels at the rear and one in front a firm base is secured when running, and a good hold on the front or toe wheel when striking out with the other skate, advantages which cannot be secured in a four-roller skate. In turning some of the ornamental figures one skate bears lightly on the floor while the other 15 bears the weight by bearing on one of the wheels *d*. On the toe-wheel *b'* shorter curves can be described than with ordinary skates, as the wheels *d* are set much farther apart, and the plane of the wheels *d d* and the wheel 20 *b'* are farther apart than the planes of the wheels *d d* and the wheels *f f*.

25 The usual refinements in the axle-bearings and oiling devices now used can be applied to these roller-skates, and the wheels may be made of any desired kind of wood, metal, or other suitable material, and, if desired, all the brackets may be formed on one plate.

30 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A roller-skate provided with two central wheels having rims curved on an incline, two heel-wheels having rims similarly curved, and one toe-wheel, all arranged to operate substantially as and for the purpose described. 35

2. A roller-skate provided with two central wheels, two heel-wheels, the said wheels having larger diameters on their internal than on their external faces, and one toe-wheel, the rim of the toe-wheel being a less distance from 40 the foot-piece than the other wheels, as described.

3. In a roller-skate, the large central wheels, *d d*, having outwardly-inclined rims, the heel-wheels *f*, also having outwardly-inclined rims, 45 and the toe-wheel *b'*, having a central rim-bearing, the wheels *d d* being wider apart than the wheels *f f*, and all arranged and operating substantially as specified.

4. The combination, with a roller-skate, of 50 the stop *h*, made adjustable to suit the skater, as described.

5. The combination, with a roller-skate, of the web *g*, provided with the slot *i* and the adjustable stop, arranged to operate as de- 55 scribed.

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Witnesses:

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