W. P. GREGG.

Roller Skate.

No. 233,845. Patented Nov. 2, 1880.

Fig. 1.

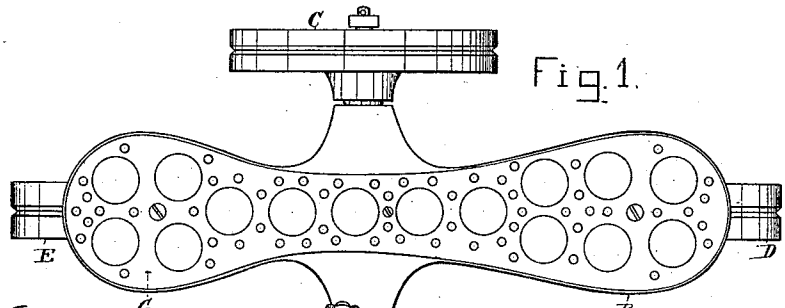



Fig. 6.

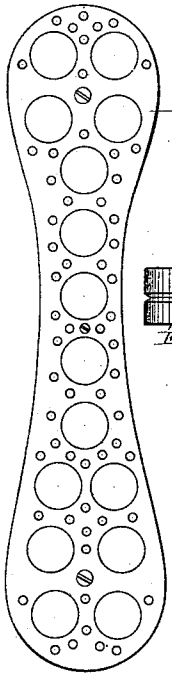



Fig. 2.

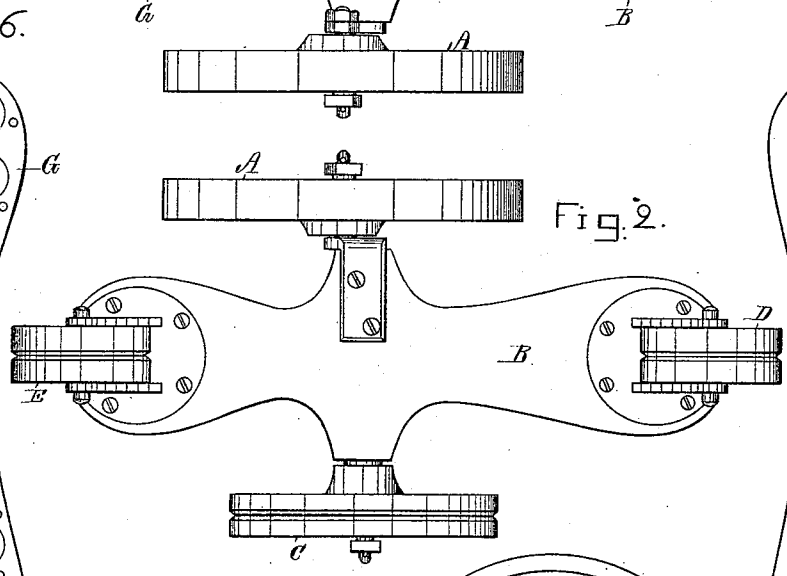



Fig. 5.

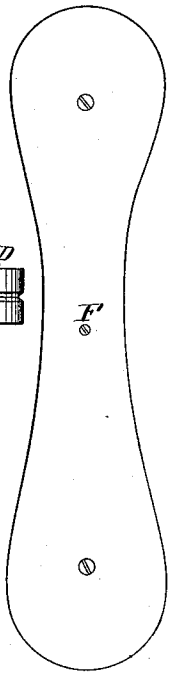
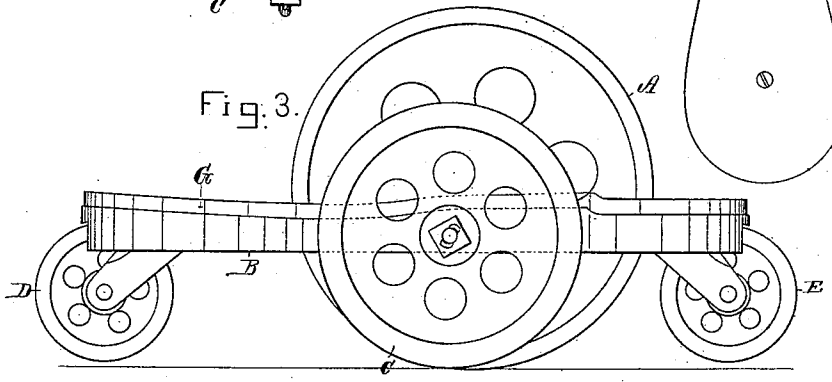



Fig. 3.

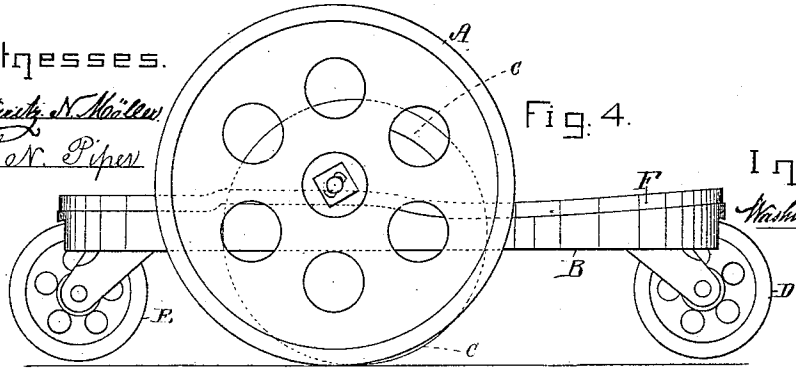



Witnesses.

Laurentz N. Möller

S. L. N. Pipes

Fig. 4.




Inventor

Washington Parker Gregg.

N.J. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

WASHINGTON P. GREGG, OF BOSTON, MASSACHUSETTS.

## ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 233,845, dated November 2, 1880.

Application filed December 31, 1879.

*To all whom it may concern:*

Be it known that I, WASHINGTON PARKER GREGG, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Roller-Skates; and I do hereby declare the nature of my said invention and the manner in which it is to be performed to be fully described in the following specification, reference being had to the accompanying drawings, which form a part thereof.

My present invention is an improvement on the roller-skates patented to me September 24, 1878, numbered 208,234, in which a large middle wheel is placed on the outer side and a smaller middle wheel on the inner side of the stock, the upper part of the rim of the smaller middle wheel being even, or nearly even, with the upper surface of the stock.

It is important for athletes and proficients to have at the inner side of the stock a middle wheel less in diameter than the outer middle wheel, and yet somewhat larger than they can, under the construction described in said patent, have an inner wheel with the upper part of its rim even, or nearly even, with the upper surface of the stock, unless the height of the stock from the ground were increased. In order to provide such inner wheel I have devised the improvements hereinafter set forth, whereby, among other advantages, may be obtained more speed and avoidance of liability of the foot bearing or slipping over the inner side of the stock.

My present invention consists in a novel construction, arrangement, or combination of the wheels, rollers, and stock of the skate, as herein set forth.

The accompanying drawings exhibit a skate embodying my improvements.

Figure 1 is a top view of the skate, with a large middle wheel on the outer side of the stock and a middle wheel less in diameter at the inner side of the stock, but with a part of its rim above the upper surface of the stock. Fig. 2 is a bottom view of the skate, with a large middle wheel on the outer side of the stock and said smaller middle wheel at the inner side of the stock. Fig. 3 is an inner side view of the skate, with its toe and heel rollers and the two middle wheels. Fig. 4 is an outer side view of the skate, with its toe and heel rollers and larger middle wheel. Fig. 5 is an unperforated, and Fig. 6 a perforated, rubber facing, to be worn, when desired, upon the top of the stock.

In carrying out my invention I arrange one comparatively large middle wheel, A, as shown in Figs. 1, 2, 3, and 4, for side support, driving, and turning, on the outer side of the stock B near the ankle, and one smaller-sized middle wheel, C, for side support, driving, and turning, at the inner side of the stock, opposite, or nearly opposite, to the larger middle wheel, A, the upper part of the rim of the smaller middle wheel, C, being above the upper surface of the stock, instead of even, or nearly even, with said surface, as in my former patent referred to, and the hubs of the middle wheels being placed on axles in different planes, as shown, and so located that when the treads of both wheels are in the same horizontal plane the stock of the skate is also horizontal. By thus making the inner middle wheel smaller than the outer one and arranging it at the inner side of the stock, with the upper part of its rim above the upper surface of the stock, it will be seen that I am thereby enabled to have an inner middle wheel not only less in diameter than the outer one, but larger than I can have one at the inner side of the stock with the upper part of its rim even, or nearly even, with the upper surface of the stock without increasing the height of the stock from the ground, while at the same time, and what is not less important, there will not be that liability of the inner middle wheels interfering with each other during use which there would be were they as large in diameter as the larger outer middle wheels, nor the liability of the foot slipping or bearing over the inner side of the stock.

With the middle wheels, arranged and constructed as set forth, I combine one small roller, D, under the toe and one small roller, E, under the heel of the stock, to support the heel and toe. The middle wheels should extend down from the stock at least as low as the end rollers, and generally a little lower than the end rollers, to facilitate driving and turning. Each middle wheel, having a separate axle, may have its lower bearing a little nearer than that

of the other middle wheel toward the toe or the heel of the stock.

The stocks, wheels, rollers, their rims, (flat or rounded,) and the fixtures and fastenings may be of any suitable materials, size, and patterns.

As there are various ways of fastening axles to the stocks, I do not confine myself to any particular way. Some axles I fasten to the upper, some to the lower, surface of the stock, and some to the sides, or to brackets below or above the stock, according to the diameter and position of the wheels and rollers.

With a view to lessen sound sometimes arising from a roller-skate when used for a long time or much worn, as well as to render the skate more easy and agreeable to the foot, I place upon the upper surface of the stock a rubber facing, as shown in Figs. 1, 3, and 4, and separately in Figs. 5 and 6. It may be whole, as shown at F, or perforated, as at G. When whole it tends more to lessen sound than when perforated, when it is lighter and yet elastic. It may be used in either condition, as circumstances require. It is fastened to the stock by screws or any other known means, and easily removed at pleasure. In general I prefer it more or less perforated.

These skates are designed for all suitable surfaces, indoors and out.

Having described my invention, what I claim, and desire to secure by Letters Patent, is as follows:

1. In roller-skates constructed with a small supporting-roller under the toe and a similar supporting-roller under the heel of the stock, a middle wheel arranged at the inner side of the stock, with the upper part of its rim above the upper surface of the stock, in combination with a larger middle wheel arranged at the outer side of the stock, the hubs of the middle wheels being placed on axles in different planes and so located that when the treads of both wheels are in the same horizontal plane the stock of the skate is horizontal, substantially as and for the purposes described.

2. A skate constructed with a wheel arranged at the inner side of the middle of the stock, with the upper part of its rim above the upper surface of the stock, combined with a larger wheel arranged at the outer side of the middle of the stock, the hubs of the wheels placed on axles in different planes and located so that when the treads of both wheels are in the same horizontal line the stock of the skate is horizontal, as described.

Boston, Massachusetts, December 29, 1879.

WASHINGTON PARKER GREGG.

Witnesses:
LAURITZ N. MÖLLER,
SAMUEL N. PIPER.