(No Model.)

E. HALL.

ROLLER SKATE.

No. 318,723. Patented May 26, 1885.

Fig. 1.

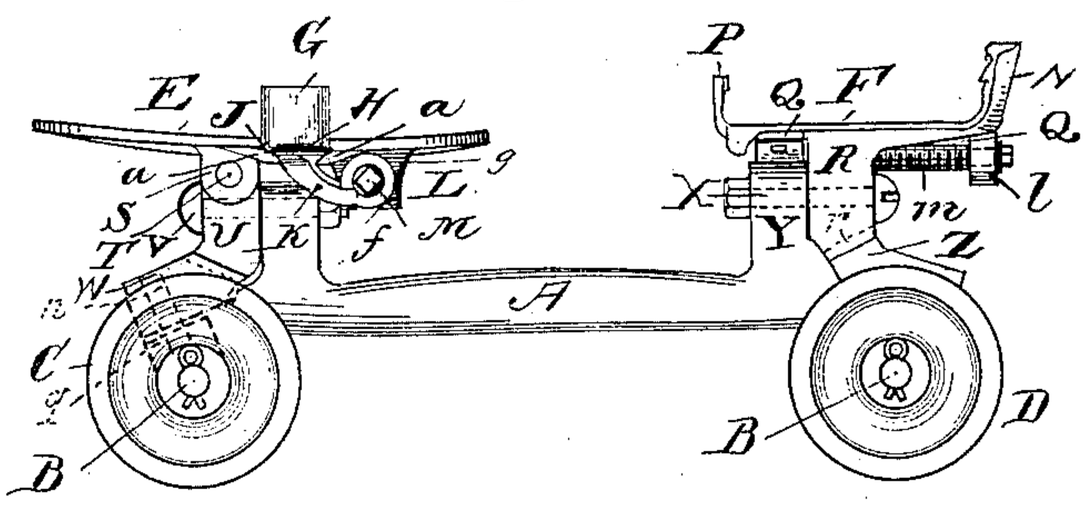


Fig. 2.

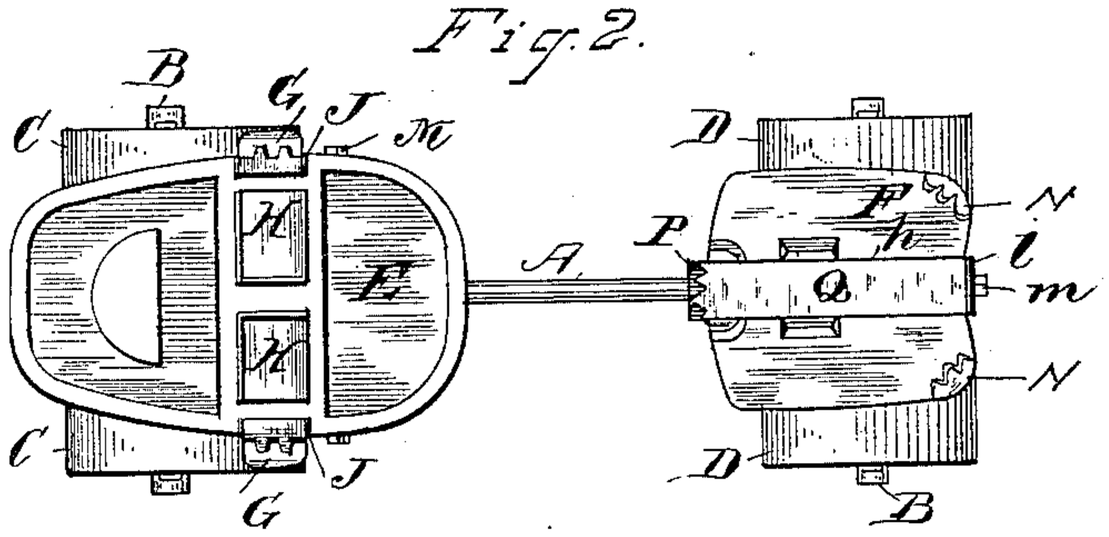


Fig. 3.

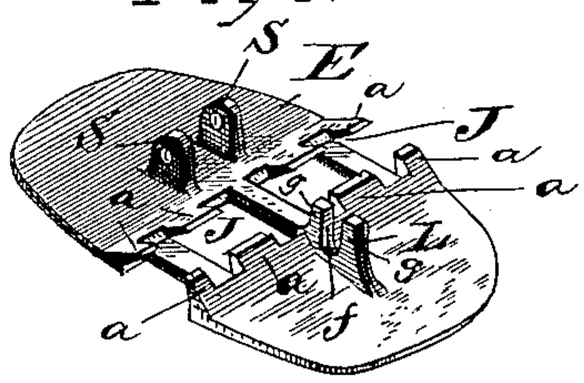


Fig. 5.

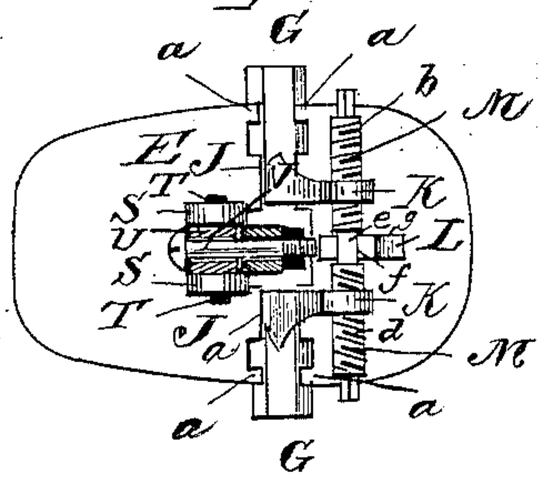


Fig. 6.

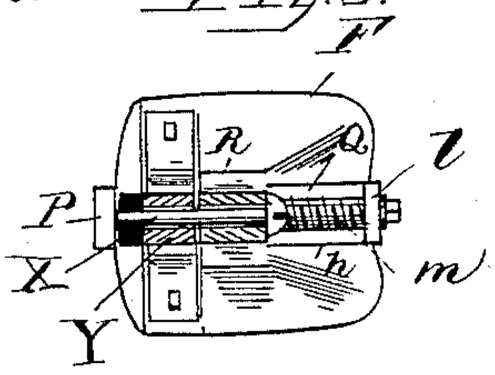
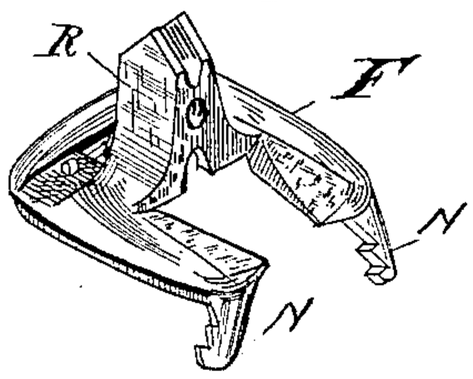


Fig. 4.



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UNITED STATES PATENT OFFICE.

EDGAR HALL, OF BOSTON, MASSACHUSETTS.

ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 318,723, dated May 26, 1885.

Application filed December 31, 1884. (No model.)

To all whom it may concern:

Be it known that I, EDGAR HALL, of Boston, (Cambridge,) in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Roller-Skates, of which the following is a full, clear, and exact description.

This invention relates, more particularly, to that class of skates known as "roller" or "parlor" skates, although in part applicable to runner or blade skates; and it consists, first, in a construction of the rest and supporting plates for the ball and toe and the heel of the skater's foot; and, second, in an arrangement in the clamp on the heel-plate, all substantially as hereinafter described.

In the accompanying drawings, Figure 1 is a side elevation of the skate. Fig. 2 is a plan view. Fig. 3 is a perspective view of the rest or supporting-plate for the ball and toe portions of the skater's foot. Fig. 4 is a perspective view of the rest or supporting-plate for the heel portion of the skater's foot. Fig. 5 is a plan view of the under side of the toe-plate, and Fig. 6 is a similar view of the heel-plate.

In the drawings, A represents the body or main portion of the skate, consisting of a bar which carries at its ends transverse axles B, for the front and rear pairs of rollers, C and D. The rollers of each pair are located on opposite sides of said bar A. This bar A, if desired, may be constructed for being lengthened and shortened, to adapt the skate to varying sizes of feet—as, for instance, as shown and described in the Letters Patent of the United States issued to me dated September 30, 1884, No. 305,919.

E is a plate for the support of the skater's foot at the ball and toe, and F is a plate for the support of the skater's foot at the heel. These rest-plates E F are separate and distinct from each other, and each has a support of its own upon the body-bar B, and clamp-jaws for clamping it to the skater's foot, as hereinafter described. The toe-plate E has a vertical clamp-jaw, G, at each side to grasp the edge of the boot or shoe sole at opposite sides and on a vertical line across the ball of the foot. Each jaw G has a horizontal extension, H, moving in a dovetail groove, J, below the upper surface of the toe-plate, and formed by raised ribs or flanges *a*, projecting from the under side of the toe-plate and made of one piece with said plate. Again, underneath the toe-plate the horizontal extension of each clamp G is provided with an ear-piece, K, of similar shape, and between these ear-pieces is a downwardly-projecting notched bearing-block, L, open at its lower end and in one piece with the toe-plate. This block makes the bearing for a horizontal screw-rod, M. This screw-rod has two sections of screw-threads, *b d*, running in opposite directions, but separated at their ends toward each other by a circumferential groove, *e*, the vertical side walls or shoulders *f* of which bear against the opposite faces *g* of the bearing-block, with the screw-rod in the notch of said block. This screw-rod at its screw portions engages with the ear-pieces K of the clamp-jaw, and at both ends it is adapted for the application of a wrench or other suitable tool by which to turn it. The turning of this screw-rod in one direction moves the clamps toward and in the other direction away from each other. The heel-plate has three vertical clamping-jaws, N N and P, two, N, at the rear, (one on each side,) and one, P, at the front and center of the heel. The rear jaws, N, are fixed and of one piece with the heel-plate, and the front jaw, P, is movable, and it is located at one end of a horizontal bar, Q, arranged to slide in a dovetail groove, *h*, which runs lengthwise of the heel-plate, and at its rear end is provided with a downwardly-projecting ear-piece, *l*, in which a horizontal screw-rod, *m*, turns, and which enters into and also turns in a bearing-block, R, projecting downward from the under side of the heel-plate and in one piece with said plate. This screw-rod at its rear end is adapted for the application of a wrench or other suitable tool by which to turn it, and the turning of it in one direction moves the front jaw, P, toward and in the other direction away from the rear jaws. The toe-plate forward of the line of its side clamps G, has two parallel and separate downward-projecting ear-pieces, S, made of one piece with said plate, and by these pieces the toe-plate is suspended upon a transverse pivot or pin, T, so as to rock lengthwise thereon, and through this pin and other parts the toe-plate is supported in position upon the

body-bar. These other parts consist of a collet or sleeve, U, swiveling on a horizontal pin, V, of a post of the body-bar A, and a toothed collet or segment, W, engaging with toothed collet U, and fastened to a vertical pin, *n*, turning in a bearing of the skate-bar, and below said pin bearing a cross-head, *q*, upon which the rollers are journaled, all as fully shown and described in the Letters Patent before referred to, and as they form no part of the present invention it is not thought necessary to more particularly describe them. The bearing-block R of the heel-plate F, for the operating screw-rod of heel-clamp P, swings upon a horizontal and longitudinal pintle, X, attached to a post, Y, of the body-bar A, and by its gear-teeth *r* it engages with a toothed collet or segment, Z, suspended from the skate-bar and arranged and constructed thereon, and carrying the rear rollers, D, the same in substance as for the toe-plate, and which is fully described in the Letters Patent before referred to, and forming no part of this invention it is not thought necessary to describe it.

The skate, complete in all its parts, as described, operates in skating substantially as the skate described in my aforesaid Letters Patent, and this invention as to the same consists in these features: First, that the toe-plate E and its guiding-ribs *a* for clamp-jaws G, and its notch-bearing block L for operating screw-rod of said jaws, and its ear-pieces S S, by which the plate is swiveled upon the transverse pin T for a forward and backward longitudinally tilting or rocking movement, are all of one and the same piece of metal or other suitable material, and not of separate pieces, as heretofore; and, second, in that the heel-plate F and its bearing-block R for the operating screw-rod of the movable jaw P and the rear jaws are of one and the same piece of metal or other suitable material, and not of separate pieces, as heretofore, both decided advantages in economy, simplicity, and durability. Again, this invention is in two stationary rear jaws, N, and a movable front jaw, in combination with the heel-supporting plate, and this portion of the invention is applicable to skates other than roller-skates.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a roller-skate, the ball and toe plate E, having ribs *a*, notched bearing-block L, and ear-pieces S, all of one piece with the plate E, in combination with side clamp-jaws G, operating screw-rod therefor, and swivel-pin T of skate body or bar A, substantially as described, for the purpose specified.

2. In a roller-skate, the heel-plate having stationary clamp-jaws N at the rear and a bearing-block, R, all of one piece with the plate, in combination with the movable clamp-jaw P at the front of the heel-plate, operating screw-rod therefor, and a swivel-pin, X, of skate body or bar, substantially as described, for the purpose specified.

3. In skates, a heel-plate having rear clamp-jaws, N, of one piece therewith, in combination with a movable clamp-jaw, P, at the front, and its operating screw-rod *m*, and bearing-block R of heel-plate therefor, substantially as described, for the purpose specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

EDGAR HALL.

Witnesses:
EDWIN W. BROWN,
WM. S. BELLOWS.