



# UNITED STATES PATENT OFFICE.

HENRY M. YATES, OF NEWARK, NEW JERSEY, ASSIGNOR TO WILLIAM E. GOODENOUGH AND L. A. GOODENOUGH, BOTH OF SAME PLACE.

## ROLLER-SKATE.

SPECIFICATION forming part of Letters Patent No. 250,319, dated November 29, 1881.

Application filed April 20, 1881. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. YATES, of Newark, in the county of Essex and State of New Jersey, have invented an Improvement in Roller-Skates, of which the following is a specification.

Roller-skates have been made by attaching to the runners of ordinary skates frames carrying rollers, and these have been clamped by screws, so as to be removable.

My invention is for insuring more firm connection between the frame and the skate-runner by combining with the front and back pairs of rollers a bar that extends from the front to the back pair of rollers, and in which is a groove for the skate-runner, which is secured by a clamping mechanism, such as a key driven in between the runner and the bar.

In the drawings, Figure 1 is a side view of the roller-carriage as attached to a skate-runner, two of the rollers being removed for showing the frame. Fig. 2 is a transverse section at the line *x x*, and Fig. 3 is a plan view.

The axles *a* and *b* are adapted to receive the rollers *c c* and *d d*, and these are secured by pins or keys *2 2* passing through the axles. The frame *f*, that connects the axles *a* and *b*, is provided with flanges *i i*, that extend up at each side of skate-runner *l*, forming a groove that is of a size adapted to receive such runner, and the groove is to be widest at the bottom, so that the frame is adapted to slip end-

wise upon the skate-runner; and *o* is a key or equivalent clamping device for holding the carriage in place upon the skate-runner.

The runners of skates are usually the widest at bottom; hence the frame will be held more securely by the clamping device if the groove is the same shape as the runner, and the carriage will not drop off the runner if the clamping device becomes slightly loose.

I prefer to use keys to clamp the runner to the skate, such keys being introduced into longitudinal grooves in the inner faces of the flanges *i i*.

I claim as my invention—

1. The combination, in a removable roller-skate carriage, of front and back pairs of rollers and axles, a grooved bar connecting the axles and adapted to receive the ordinary skate-runner, and means for clamping the bar to the runner, substantially as set forth.

2. In a removable roller-skate carriage, a grooved bar connecting the front and back axles, the groove being widest at the bottom, in combination with a key to secure the bar to the runner, substantially as specified.

Signed by me this 16th day of April, A. D. 1881.

HENRY M. YATES.

Witnesses:

GEO. T. PINCKNEY,  
WILLIAM G. MOTT.