

H. ROBERTS.
SKATE SHARPENING MACHINE.
APPLICATION FILED FEB. 19, 1910.

967,439.

Patented Aug. 16, 1910.

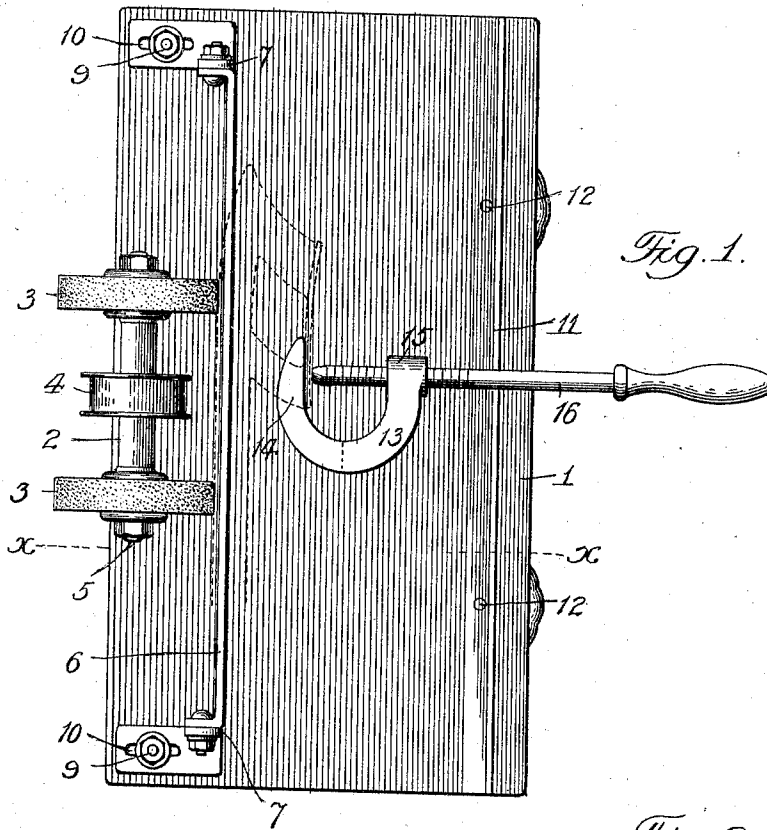


Fig. 1.

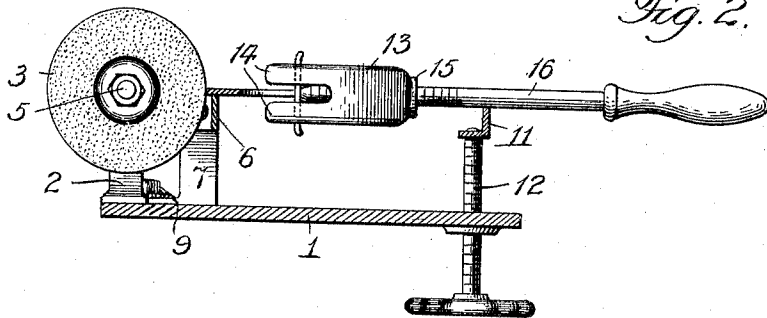


Fig. 2.

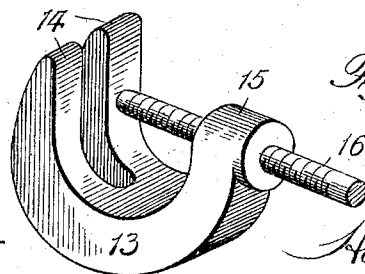


Fig. 3.

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UNITED STATES PATENT OFFICE.

HORACE ROBERTS, OF CHICAGO, ILLINOIS.

SKATE-SHARPENING MACHINE.

967,439.

Specification of Letters Patent.

Patented Aug. 16, 1910.

Application filed February 19, 1910. Serial No. 544,857.

To all whom it may concern:

Be it known that I, HORACE ROBERTS, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Skate-Sharpening Machines, of which the following is a specification.

This invention relates to a grinding mechanism for sharpening the runners of ice-skates from time to time as they become worn down by actual use. And the present improvement has for its object to provide a simple and efficient structural formation and combination of parts whereby the face of the skate runner is positively and accurately held in contact with and guided past the grinding wheel in a predetermined plane to attain the required uniformity and evenness of the face of such skate runner, all as will hereinafter more fully appear.

In the accompanying drawings:—Figure 1, is a plan view. Fig. 2, is a vertical sectional elevation on line $x-x$, Fig. 1. Fig. 3, is a detail perspective view of the skate holding clamp.

Similar numerals of reference indicate like parts in the different views.

Referring to the drawings, 1 represents a base or bed plate of any suitable form, and upon which the different members of the present mechanism are mounted.

2 is a standard secured to the base 1 and carrying one or more grinding wheels 3, which receive rotation from a driving wheel 4 on the spindle 5 of said grinding wheels, as usual in grinding machines.

6 is an inner bar or rail arranged in substantially parallel relation to the axis of rotation of the spindle 5, and constituting a longitudinal guideway for the skate blade as hereinafter more fully set forth.

7 are end standards carrying the rail 6, and secured to the base 1 in a transversely adjustable manner by holding bolts 9 and elongated slots 10, as shown in Fig. 1.

11 is an outer bar or rail arranged in separated and parallel relation to the inner bar or rail 6, aforesaid, and also constituting a longitudinal guideway for the skate and its carrying clamp.

12 are a pair of vertical screw-bolts passing through the base 1, in separated relation, and carrying the rail 11 at their up-

per ends as shown in Fig. 2. Said bolts afford a ready means for effecting a vertical adjustment of the rail 11, in an adjustment of the parts to suit varied requirements in operating on different sizes and makes of ice-skates, and the scope of this part of the present invention embraces the use of any usual adjusting means in place of the bolts 12 aforesaid.

13 is a C shaped skate holding clamp one end of which is forked to provide a pair of separated bearing prongs 14, which are adapted to straddle the runner blade of the skate and form a bearing at each side of said runner blade for the under side of the sole plate or like part of the skate as shown. At its other end said clamp is provided with a hub portion 15, having a screw-threaded orifice for the reception of the screw-threaded end of the handled clamping rod 16.

In the practical use of the present invention the skate is firmly secured to the carrying clamp 13 by means of the screw-threaded clamping rod 16 engaging against and pressing the sole plate or like portion of the skate against the pair of bearing prongs 14 of the clamp. The blade of the skate is then placed upon the rail 6, and the shank of the handled clamping rod 16 upon the rail 11, after which the face of the skate runner is pressed against the grinding wheel or wheels 3, and moved along the same until the proper grinding has been attained.

Having thus fully described my said invention what I claim as new and desire to secure by Letters Patent, is:—

1. In a mechanism for sharpening ice-skates, the combination of a grinding wheel and its support, a pair of guide rails arranged in separated and parallel relation at one side of said support, a skate holding clamp provided with means for engaging the sole plate of a skate, and an elongated handle carried by said clamp and adapted for sliding engagement upon one of the guide rails, the skate blade having sliding engagement upon the other guide rail, substantially as set forth.

2. In a mechanism for sharpening ice-skates, the combination of a grinding wheel and its support, a pair of guide rails arranged in separated and parallel relation at one side of said support, a skate holding clamp provided with means for engaging

the sole plate of a skate, an elongated handle carried by said clamp and adapted for sliding engagement upon one of the guide rails, and means for effecting a vertical adjustment of said rail, the skate blade having sliding engagement upon the other guide rail, substantially as set forth.

Signed at Chicago, Illinois, this 14th day of February, 1910.

HORACE ROBERTS.

Witnesses:

D. F. MILLER,
N. W. MURREY.