(No Model.)

H. F. OSBORNE.

SKATE FASTENER.

No. 332,424. Patented Dec. 15, 1885.

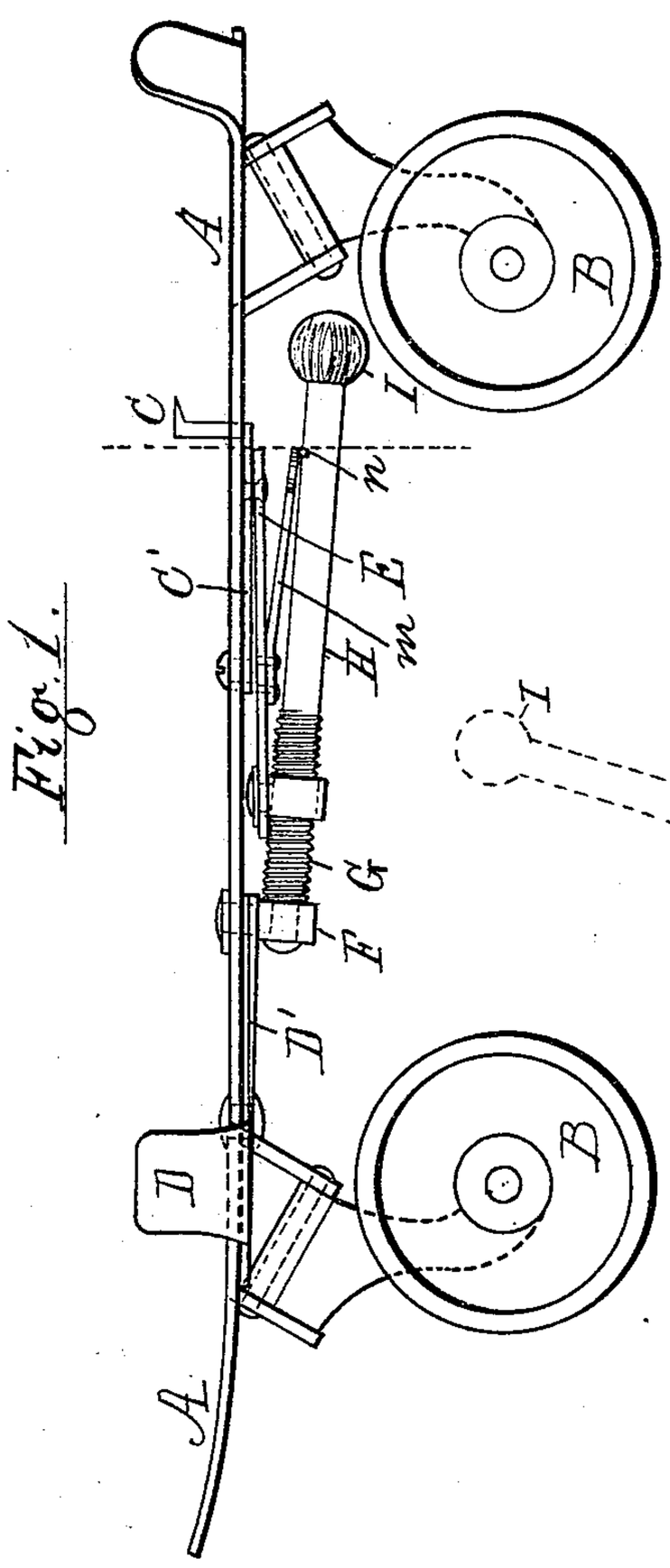

Fig. 1.

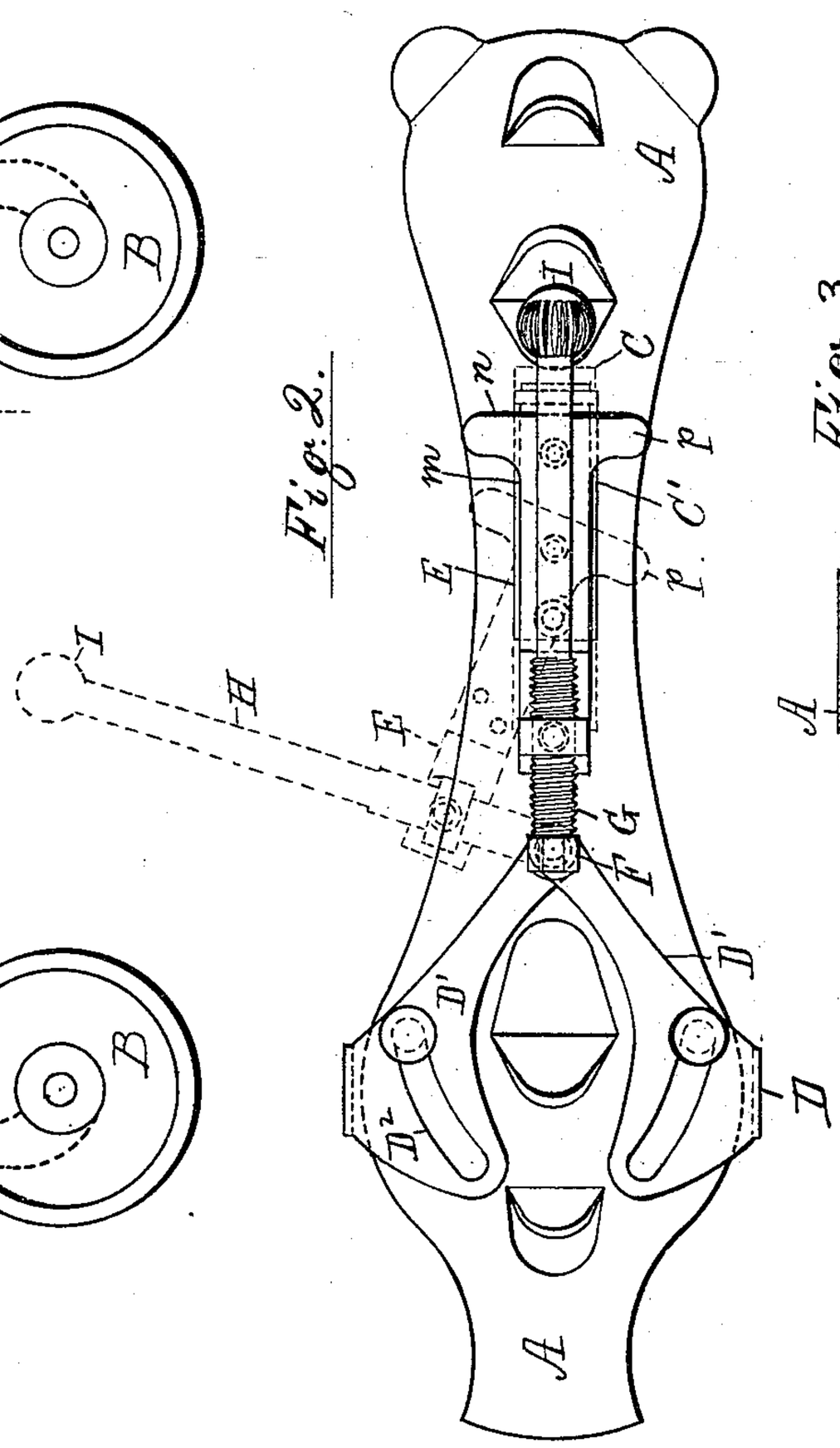

Fig. 2.

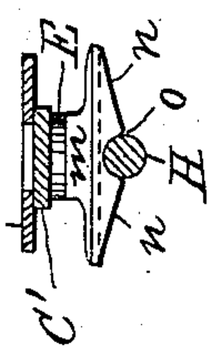

Fig. 3.

Attest.

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UNITED STATES PATENT OFFICE.

HENRY F. OSBORNE, OF NEWARK, NEW JERSEY.

SKATE-FASTENER.

SPECIFICATION forming part of Letters Patent No. 332,424, dated December 15, 1885.

Application filed November 1, 1884. Serial No. 146,982. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. OSBORNE, a citizen of the United States, residing in Newark, Essex county, New Jersey, have invented certain new and useful Improvements in Skate-Fasteners, fully described and represented in the following specification and the accompanying drawings, forming a part of the same.

This invention relates to an improvement in the skate-clamp fastener heretofore constructed with a toggle-joint for connecting the heel and toe clamps, and having an adjusting-screw fitted into one link of the toggle to vary its action upon the clamps. In such combination a removable wrench is used to turn the adjusting-screw, and a separate clamping-lever is required to bend the toggle-joint when unclamping the skate from the foot; and my invention is adapted to unite the clamping-lever with the adjusting-screw in such manner as to make it exercise the functions of both the clamping-lever and separate wrench; and to thus avoid the use of any lever or wrench apart from the screw itself. I effect this result, first, by lengthening the shank of the screw sufficiently to make it serve as a lever, and thus actuate the toggle by moving the screw-shank only; secondly, by providing a spring-catch to retain such shank in position when the clamps are closed; and, thirdly, by constructing the said shank with a suitable head for turning it with the fingers, and thus adjusting the screw without a separate wrench.

The construction is shown in the annexed drawings as applied to a roller-skate, Figure 1 being a side elevation with the clamps closed, and Fig. 2 a plan view showing the skate without the rollers and with the lever shown as when unclamping the skate in dotted lines. Fig. 3 is a section on line *x x*, Fig. 2.

A is the sole-plate of the skate; B, the rollers; C, the heel-clamp, and D the toe-clamp, both of the clamps being operated simultaneously by a toggle, which serves to push them apart and clamp them when the toggle is straightened. The heel-clamp is formed on a straight slide, C′, and has the toggle-link E pivoted to it, while the toe-clamp is attached to two plates, D′, formed with curved slots D^2, and joined to the link E by a screw, G, the neck of the screw being swiveled in a bearing, F, which is riveted to the plates D′ and extends through a longitudinal slot in the sole-plate. The nut for the screw is pivoted on the free end of the link E, and the length of the toggle when straightened is obviously varied by turning the screw in the nut, and thus lengthening or shortening the connection between the heel and toe clamps. Heretofore in similar constructions the shank of the screw has been formed with a square head to fit a removable wrench, and the latter was required whenever the toggle or clamps needed adjustment; but in my construction I form the screw-shank with a handle-like extension, H, to serve as a clamping-lever, and provide its end with a head, I, adapted for turning the screw whenever required without the use of a wrench.

To lock the handle H centrally, I attach a spring, *m*, to the under side of the sole-plate beneath the toggle when straightened, and form its end with inclined lips *n*, and a notch, *o*, to fit the handle H, and with opposite side ears, *p*, for pressing the spring inward from opposite sides of the skate to detach the handle. It may be drawn out at either side of the skate when pressing the spring inward, and the clamps may thus be operated from either side of the foot. The skate may thus be applied as either a right or a left, and when placed on the foot may be clamped thereto by pressing the handle H over the nearer inclined lip into the notch *o*. Should the clamps need a different adjustment, the handle may be withdrawn from the notch and the screw turned in the required direction without removing the hand from the handle by means of the head I, which is shown herein as merely a milled or roughened knob. Opposite wings, like those of a thumb-screw, may be used in place of the knob, or any form that is adapted to fit the fingers. It will thus be seen that I dispense with the wrench and clamping-lever heretofore used by lengthening the shank of the screw and fitting it to turn by the fingers.

My invention is adapted to any skate or clamp having an adjusting-screw employed in a toggle in the manner described; and

I therefore claim—

1. The combination, with a skate-clamp toggle, of an adjusting-screw having a shank constructed and operated to actuate the toggle

as a lever and to turn the screw by the fingers, substantially as shown and described.

2. The combination, with the skate-clamp toggle having the adjusting-screw, as described, of the shank H, and the spring *m*, for holding the shank and toggle in a fixed position, as and for the purpose set forth.

3. The combination, with the shank H, attached to the adjusting-screw, of the spring *m*, provided with inclined lips *n*, notch *o*, and ears *p*, the whole arranged with a skate toggle and operated as and for the purpose set forth.

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

HENRY F. OSBORNE.

Witnesses:
THOS. S. CRANE,
L. LEE.