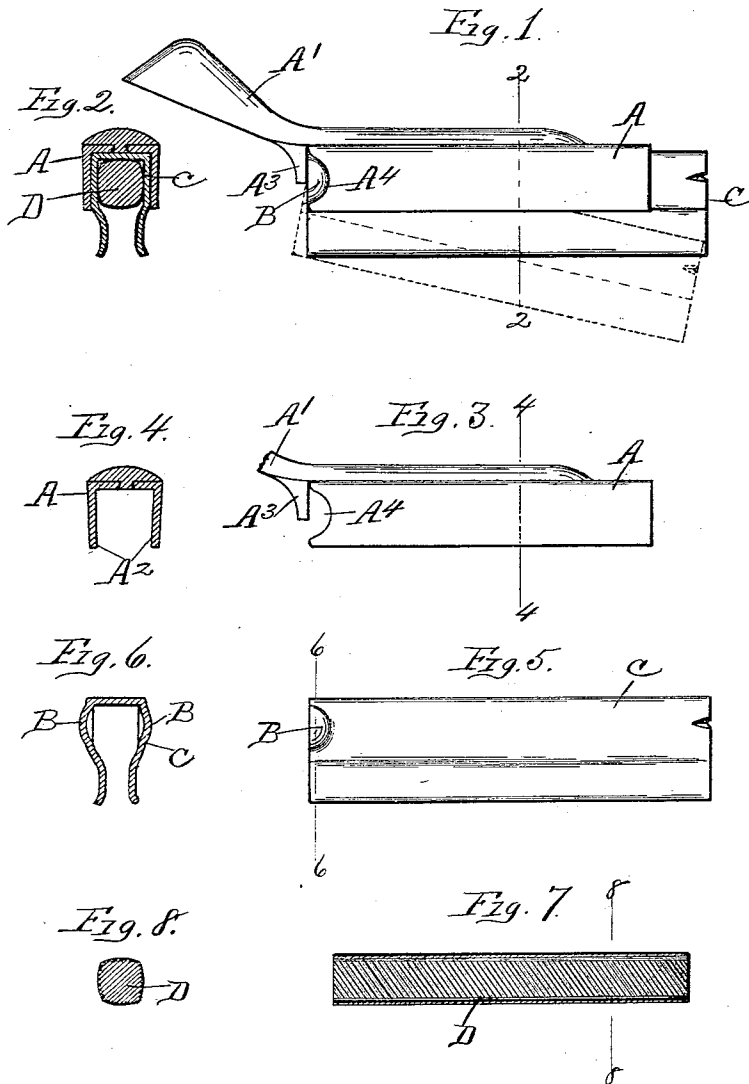


(No Model.)

A. D. BANKER.
SKATE SHARPENER.

No. 555,299.

Patented Feb. 25, 1896.



Witnesses:
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UNITED STATES PATENT OFFICE.

ALEXANDER D. BANKER, OF TROY, NEW YORK.

SKATE-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 555,299, dated February 25, 1896.

Application filed September 11, 1895. Serial No. 562,157. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER D. BANKER, a citizen of the United States, residing at Troy, county of Rensselaer, and State of New York, have invented certain new and useful Improvements in Skate-Sharpener, of which the following is a specification.

The invention relates to such improvements; and it consists of the novel construction and combination of parts hereinafter described and subsequently claimed.

Reference may be had to the accompanying drawings, and the letters of reference marked thereon, which form a part of this specification.

Similar letters refer to similar parts in the several figures therein.

Figure 1 of the drawings is a view in side elevation of my improved skate-sharpener. Fig. 2 is a vertical cross-section of the same, taken on the broken line 2 2 in Fig. 1. Fig. 3 is a side elevation of the holder detached, a portion of the handle being broken away. Fig. 4 is a vertical cross-section of the same, taken on the broken line 4 4 in Fig. 3. Fig. 5 is a side elevation of the sheet-metal guide detached. Fig. 6 is a vertical cross-section of the same, taken on the broken line 6 6 in Fig. 5. Fig. 7 is a side elevation of the convexed file detached. Fig. 8 is a vertical cross-section of the same, taken on the broken line 8 8 in Fig. 7.

My improved skate-sharpener comprises a file or cutter of a form to impart to the face of a skate-runner the desired shape, a guide for maintaining the file in the proper position upon the face of the runner during the sharpening operation, and a holder for securing the parts together provided with means for operating the device.

Referring to the drawings, A represents the holder provided with a handle A', adapted to be grasped by one hand in operating the device.

The body of the holder is preferably made of a strip of resilient sheet metal bent into channel form to provide the lateral depending flanges A². The channeled holder is adapted to receive and detachably hold the guide C and contained file D.

The guide comprises a single piece of resilient sheet metal bent into channel form,

and is similar to the holder A in form, except that its depending flanges are adapted to fit tightly between the flanges of the holder, and the flanges of the guide depend a considerable distance below those of the holder when the guide is inserted in the holder.

The file is preferably a bar or rod of steel having a general rectangular shape in cross-section and one or more of its faces convexed and toothed or roughened to form an abrading-surface. The file is constructed to fit loosely within the channeled guide before the latter is inserted in the holder, and the holder is made to receive and tightly fit the guide, whereby when the guide and its contained file are forced into the channeled holder the walls or flanges of the guide are compressed and forced into tight engagement with the file, retaining the same in position.

When desired, the flanges of the holder may be slightly bent toward each other to contract the mouth of the holder-channel, as shown in Fig. 4, whereby the holder-flanges are made to engage the guide-flanges at a considerable distance from the point of junction of such flanges with the body or base of the guide.

The guide-flanges depend a considerable distance below the file and are bent toward each other to provide a contracted space between such flanges for the reception of the skate-runner to be sharpened. The space between such flanges is less than the width of the ordinary skate-runner, and when a runner is inserted between the flanges the resiliency of the flanges permits them to separate to receive the runner and causes them to bear upon the opposite sides of the runner.

The engagement of the guide-flanges with the sides of the runner tends to keep the file located directly above and in the middle of the face of the runner as the sharpener is moved longitudinally thereon, thereby insuring the proper location of the groove formed in such face by the convexed file, irrespective of the width of the skate-runner.

To prevent the guide from sliding longitudinally of the holder-channel, I provide a lug A³ depending from the handle-casting against which one end of the guide bears, and I remove a portion of the holder-flange to form a recess in one end of the same at A⁴ adapted

to receive a boss B, formed by indenting the inner wall of a guide-flange. The engagement of the boss on the guide-flange with the holder-flange prevents relative longitudinal movement of the guide in one direction, and the engagement of the lug A³ with the guide prevents movement in the opposite direction. I preferably provide both holder-flanges with such recesses A⁴ and both guide-flanges with bosses B which fit such recesses respectively and serve as pivots or trunnions on which the guide may be rotated in inserting and removing the same from the holder.

I have shown the guide considerably longer than the holder and projecting longitudinally beyond the same.

In removing the guide from the holder the handle A' is held by one hand while the guide is grasped by the other hand at its projecting end and forced out of the holder-channel by a rotary movement, turning on the bosses B.

To insert the guide in the holder, the bossed end is first inserted and the other end forced into place by a rotary movement. The file is placed in the bottom of the guide-channel before the guide is inserted in the holder.

My improved construction is simple and durable, and permits the parts to be easily separated and assembled and secured together again without the use of bolts or other external devices, the parts being held together by the frictional contact of the engaging surfaces.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a skate-sharpener, the combination with a channeled holder, of a file, and a channeled guide inclosing the file and secured within the holder-channel, substantially as described.

2. In a skate-sharpener, the combination with a channeled holder, of a file, and a channeled sheet-metal guide inclosing the file and seated in and tightly fitting the holder-channel, whereby the parts are secured together by the frictional engagement of the adjacent surfaces of the holder and guide, and guide and file, respectively, substantially as described.

3. In a skate-sharpener, the combination with a channeled holder having converging resilient flanges, of a file, and a channeled guide formed of resilient sheet metal inclosing the file and tightly inserted in the holder-channel, substantially as described.

4. In a skate-sharpener, the combination with a channeled holder having flanges recessed at one end, of a file, a channeled file-inclosing guide tightly fitting the holder-channel, and a pair of bosses on the guide-flanges at one end fitting the respective recesses in the holder-flanges, substantially as described.

In testimony whereof I have hereunto set my hand this 4th day of September, 1895.

ALEX. D. BANKER.

Witnesses:

FRANK C. CURTIS,
F. G. BROWN.