

(No Model.)

L. K. HOLLYMAN & R. W. HOGE.
SHARPENING DEVICE.

No. 600,947.

Patented Mar. 22, 1898.

Fig. 1.

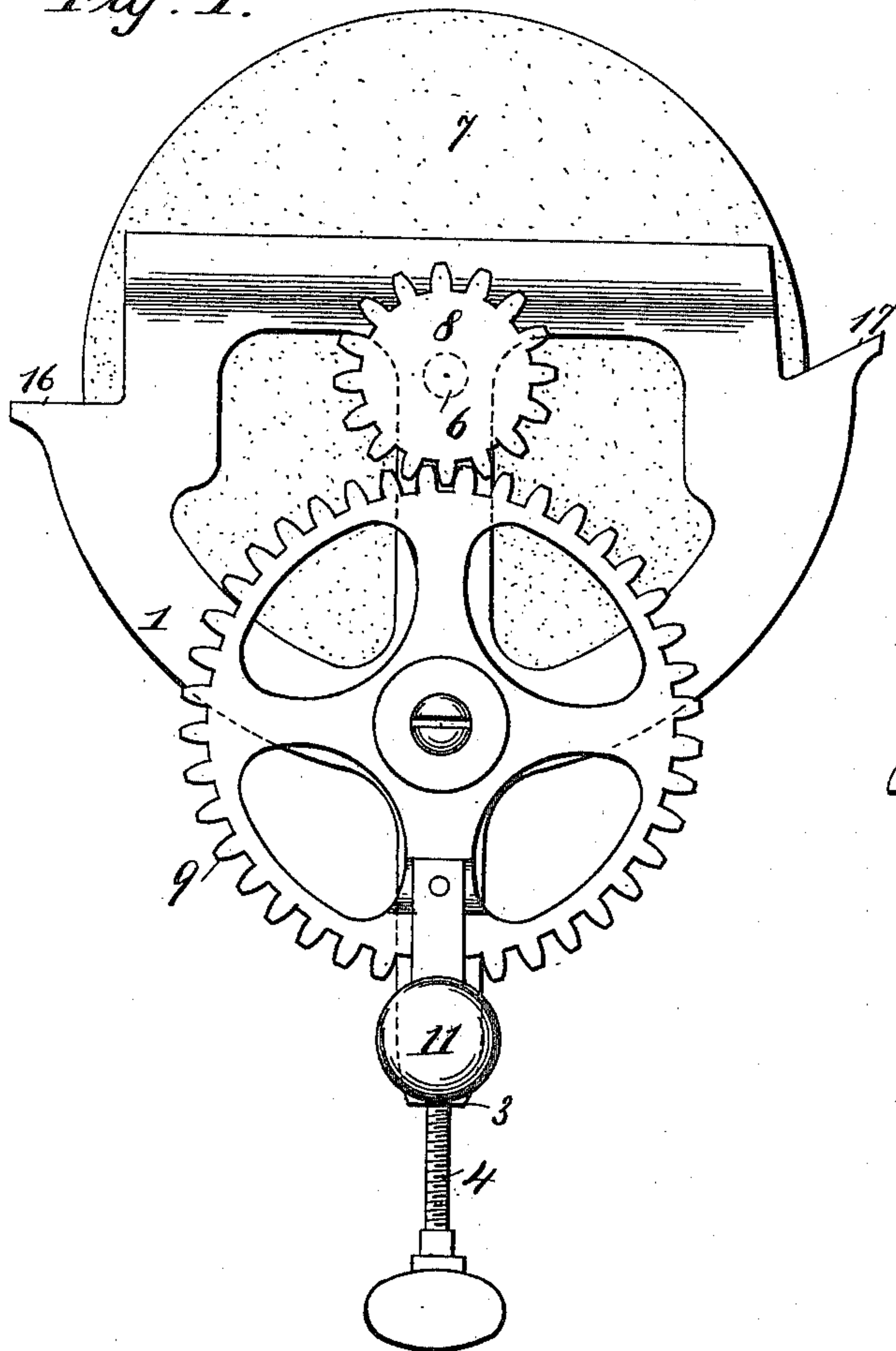


Fig. 2.

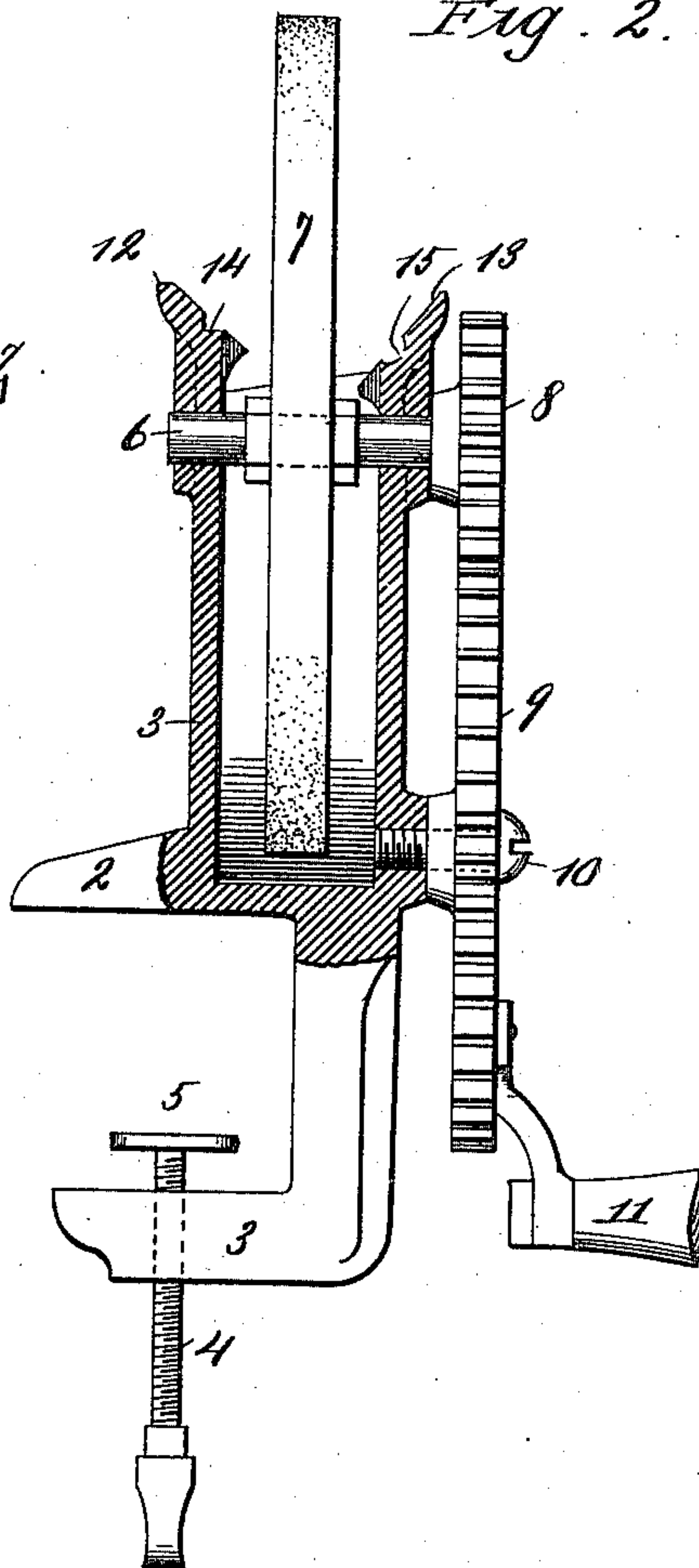


Fig. 4.

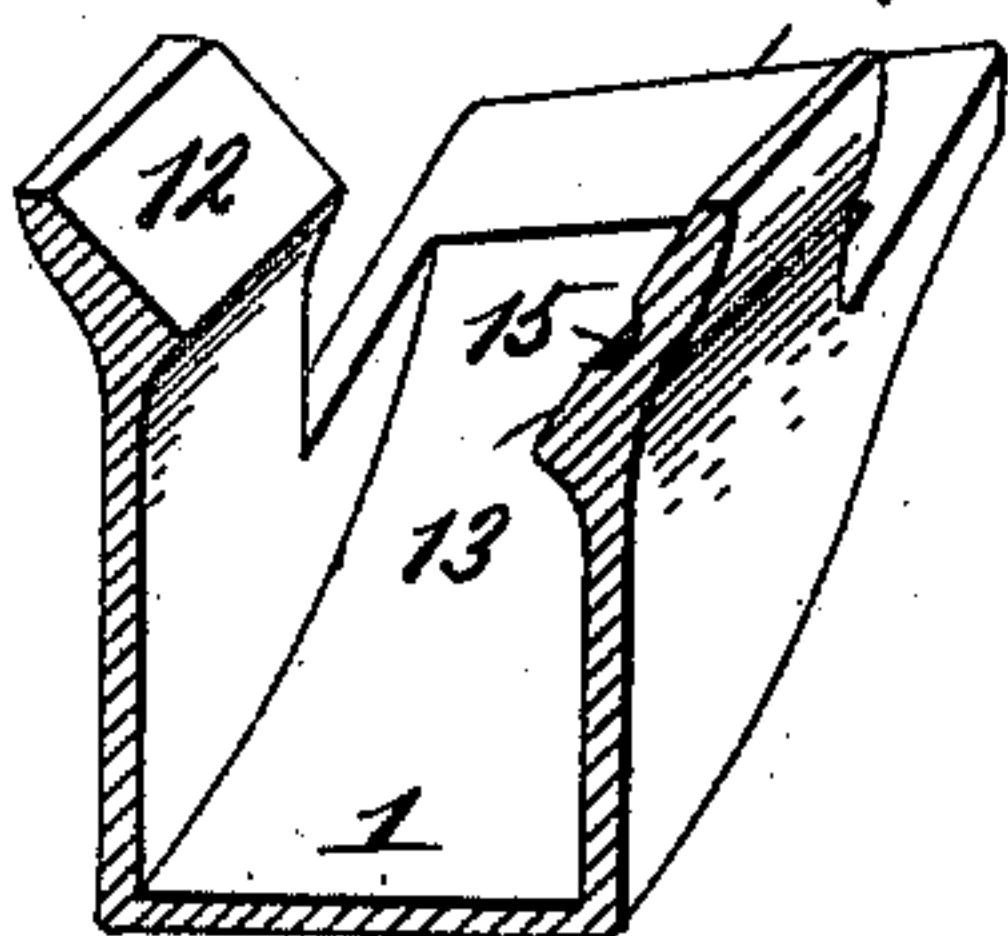
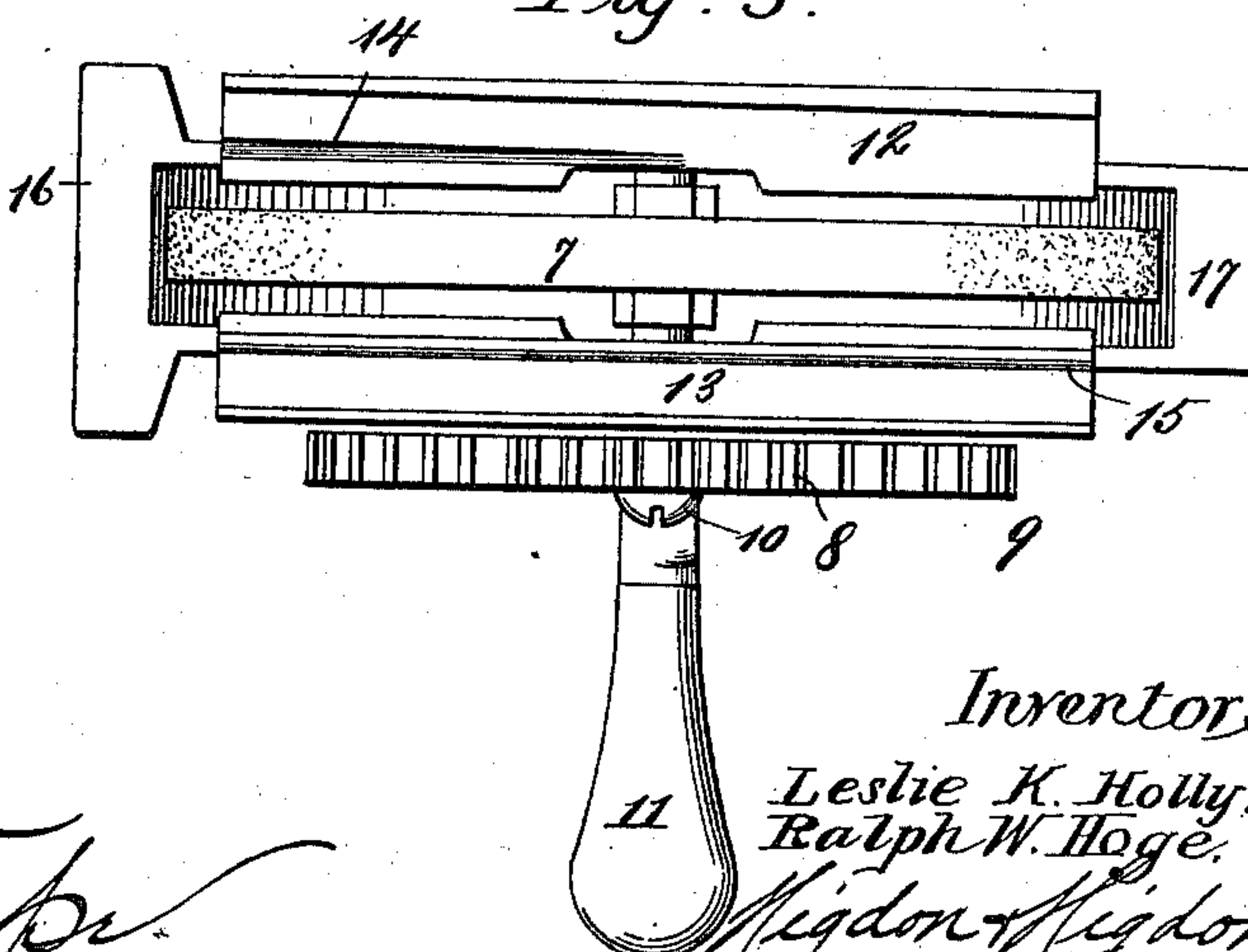


Fig. 3.



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UNITED STATES PATENT OFFICE.

LESLIE K. HOLLYMAN AND RALPH W. HOGE, OF KANSAS CITY, MISSOURI.

SHARPENING DEVICE.

SPECIFICATION forming part of Letters Patent No. 600,947, dated March 22, 1898.

Application filed June 1, 1897. Serial No. 638,906. (No model.)

To all whom it may concern:

Be it known that we, LESLIE K. HOLLYMAN and RALPH W. HOGE, of Kansas City, Jackson county, Missouri, have invented certain new and useful Improvements in Sharpening Devices, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part thereof.

Our invention relates to sharpening devices, and our object is to produce a device of this character whereby household cutlery of all kinds, brace-bits, scissors, clasp-knives, skates, &c., may be easily and expeditiously sharpened.

A further object is to produce a sharpener which may be easily and quickly placed in or removed from any required position and which is simple, durable, and cheap of manufacture.

To these ends the invention consists in certain novel and peculiar features of construction and combinations of parts, as will be hereinafter described and claimed.

In order that the invention may be fully understood, we will proceed to describe it with reference to the accompanying drawings, in which—

Figure 1 is a side elevation of a sharpener embodying our invention. Fig. 2 is a vertical cross-section of the same. Fig. 3 is a top plan view of the sharpener. Fig. 4 is a sectional perspective view of part of the device.

Like numerals designate corresponding parts in all of the figures, in which—

1 designates a semicircular trough or casing, preferably of cast metal and of skeleton form. It is provided centrally and at its lower side with the laterally-projecting stationary jaw 2, and with a correspondingly-projecting arm 3 below said jaw. A set-screw is mounted in said arm and is provided with a plate or disk 5 at its upper end, which in effect is a movable jaw, whereby the casing may be clamped upon the end of a table, bench, or shelf, as most convenient to the operator. Vertically above said jaws and journaled axially of the segmental trough or casing 1 is a shaft 6, and secured rigidly thereon, as shown, or in any other suitable or preferred manner is a circular grindstone of emery or any other

suitable material. Mounted rigidly upon the end of the shaft 6 opposite the jaw 2 is a cog-pinion 8, and meshing therewith is a cog-wheel 9, journaled upon the screw-bolt 10, secured to the trough or casing. Said wheel 9 is provided with a crank arm or handle 11, by which the emery-wheel is rapidly rotated. The sides of the trough or casing above its axis are thickened and slightly flared in order to provide the wide bearing-surfaces 12 and 13, which converge downwardly and inwardly with respect to the wheel, but preferably at different angles. These surfaces 12 and 13 form in effect flat guides or tables, whereon scissors and other bevel-edge implements or tools may be accurately ground.

The bearing surface or guide 12, as will be noticed by reference to Fig. 3, is slightly wider at one end than at the other. In other words, it converges toward one end and therefore is better adapted to receive and hold implements, such as scissors, which converge toward one end, than the surface 13, which is the same width for its entire length. The surface 13 is particularly adapted for grinding carpenters' bevel-edge tools and others of the same form—that is, such tools as have their ends sharpened instead of their side margins.

Upon the surface 12 scissors-blades are placed flatwise, and its angle is such that it grinds off the cutting edge of the blade at the proper angle. It is also provided with a short groove 14, in which the back of a carving-knife may rest securely while its edge bears against the side of the wheel. The surface 13 is grooved for its entire length in order that the opposite side of carving-knives may be conveniently sharpened.

To sharpen a carving-knife, it is arranged with its back edge in the groove 15 and inclined laterally, so as to throw the surface of the blade against the opposing side of the wheel, as indicated by dotted lines, Fig. 2. In this position it may be easily and reliably held and sharpened.

At one end the trough or casing is provided with a right-angled recess the vertical surface of which is within the plane of the periphery of the emery-wheel and therefore out of the way entirely of any articles to be sharp-

ened. The horizontal surface 16 of such recess or notch is preferably a distance below the center of the trough or casing equal to about one-half the width of a skate-runner, 5 in order that it may form a reliable guide upon which skates may be held and sharpened. To accomplish this, a skate-runner is laid flatwise upon the table 16, with its center in the plane of the wheel's axis, and as 10 the latter is rapidly revolved the skate is reciprocated longitudinally, so that it may be sharpened properly for its entire length. With this device the skate can be quickly and easily sharpened and hollow-ground 15 slightly, the concave of the ground surface being more or less, accordingly as the wheel is of smaller or greater diameter. The opposite end of the trough or casing is provided with a V-shaped notch, so as to form the inclined table or guide-surface 17. The inclination of said surface is both inward and laterally, as will be noticed by reference to Fig. 4, and will be found most convenient for sharpening upon the edge of the wheel shears 20 and other implements or tools. By providing these variously-inclined surfaces at the sides and one end of the device and the horizontal surface or table at its other end it will be obvious that it is adapted for practical use in 30 sharpening any ordinary-sized tool or imple-

ment expeditiously and with the least possible trouble.

From the above description it will be apparent that we have produced a sharpening device which possesses the features of advantage pointed out as desirable in the statement of invention and which by placing it with its jaws 2 and 5 above and below the edge of a table, bench, or the like may be easily and quickly clamped thereon. 40

Having thus described the invention, what we claim as new, and desire to secure by Letters Patent, is—

A sharpening device, comprising a segmental trough or casing notched at its opposite ends to form guide-surfaces or tables, and provided also at its opposite sides and above said notches with converging inclined surfaces or tables, and a rotatable grinding wheel or disk mounted in the trough or casing and 50 between said inclined surfaces or tables and said notches, substantially as described.

In testimony whereof we affix our signatures in the presence of two witnesses.

LESLIE K. HOLLYMAN.
RALPH W. HOGE.

Witnesses:

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