

No. 774,880.

PATENTED NOV. 15, 1904.

F. P. HUYCK & J. D. R. LAMSON.

PENCIL SHARPENER.

APPLICATION FILED JULY 11, 1902.

NO MODEL.

Fig. 1.

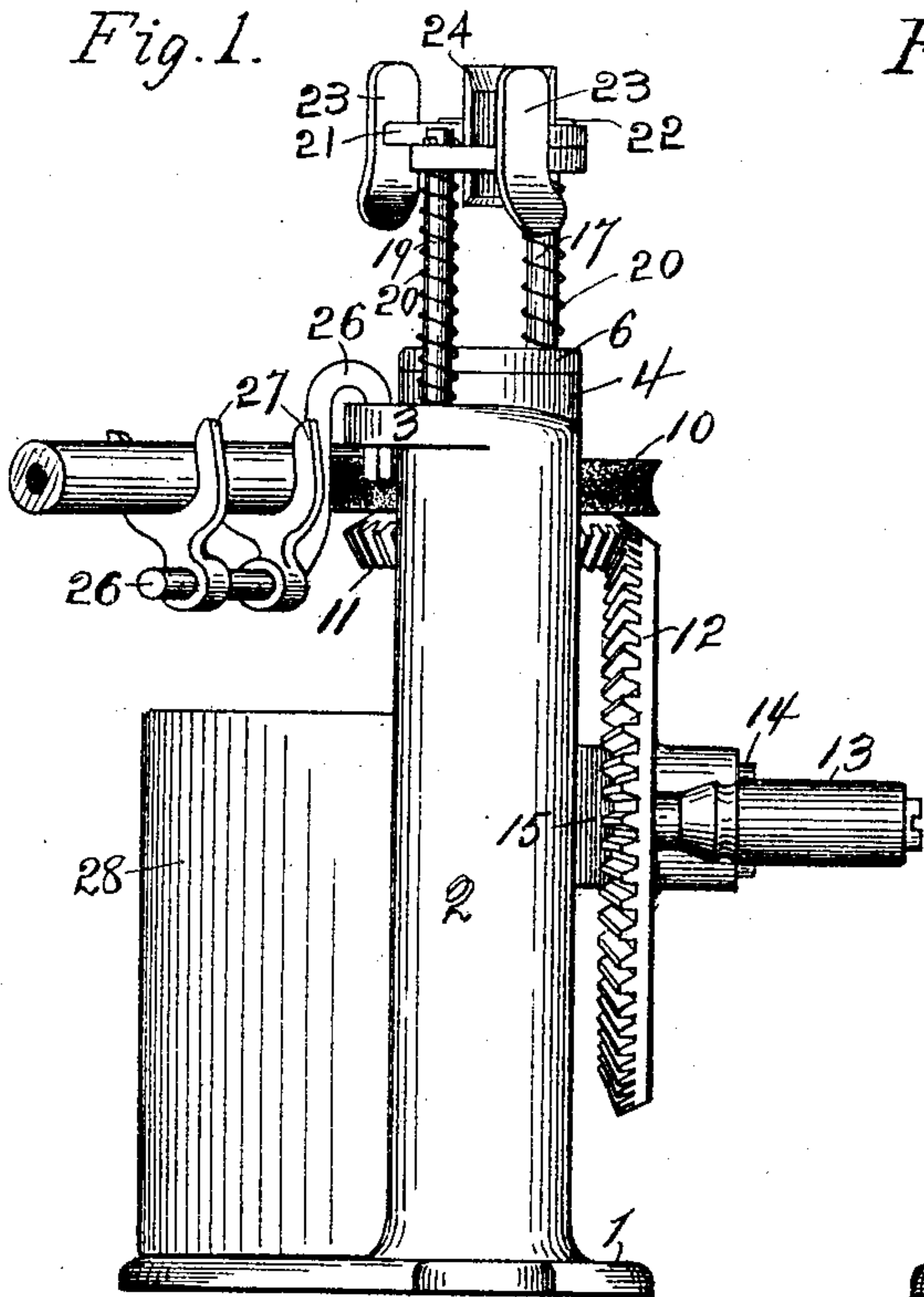


Fig. 2.

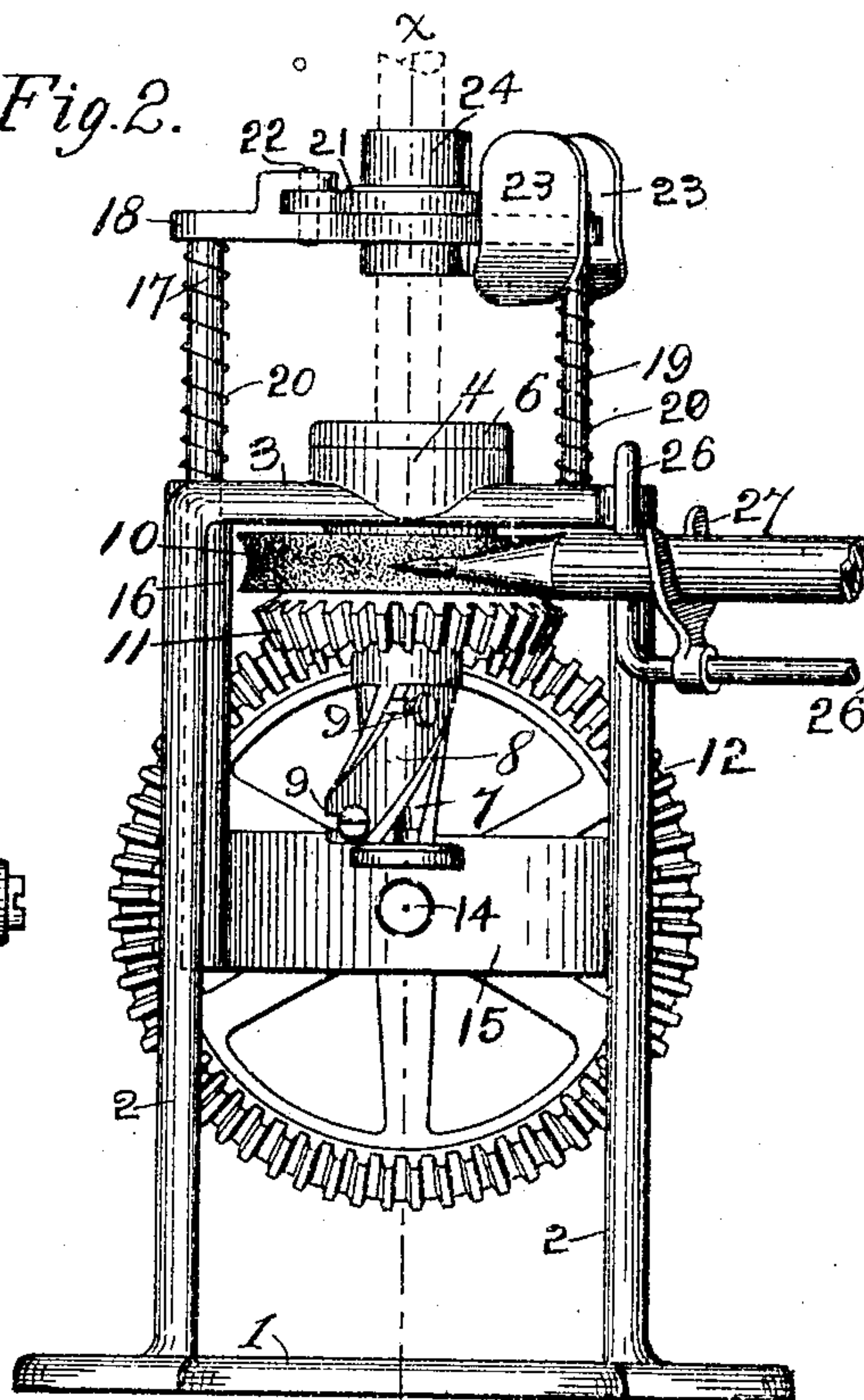


Fig. 3.

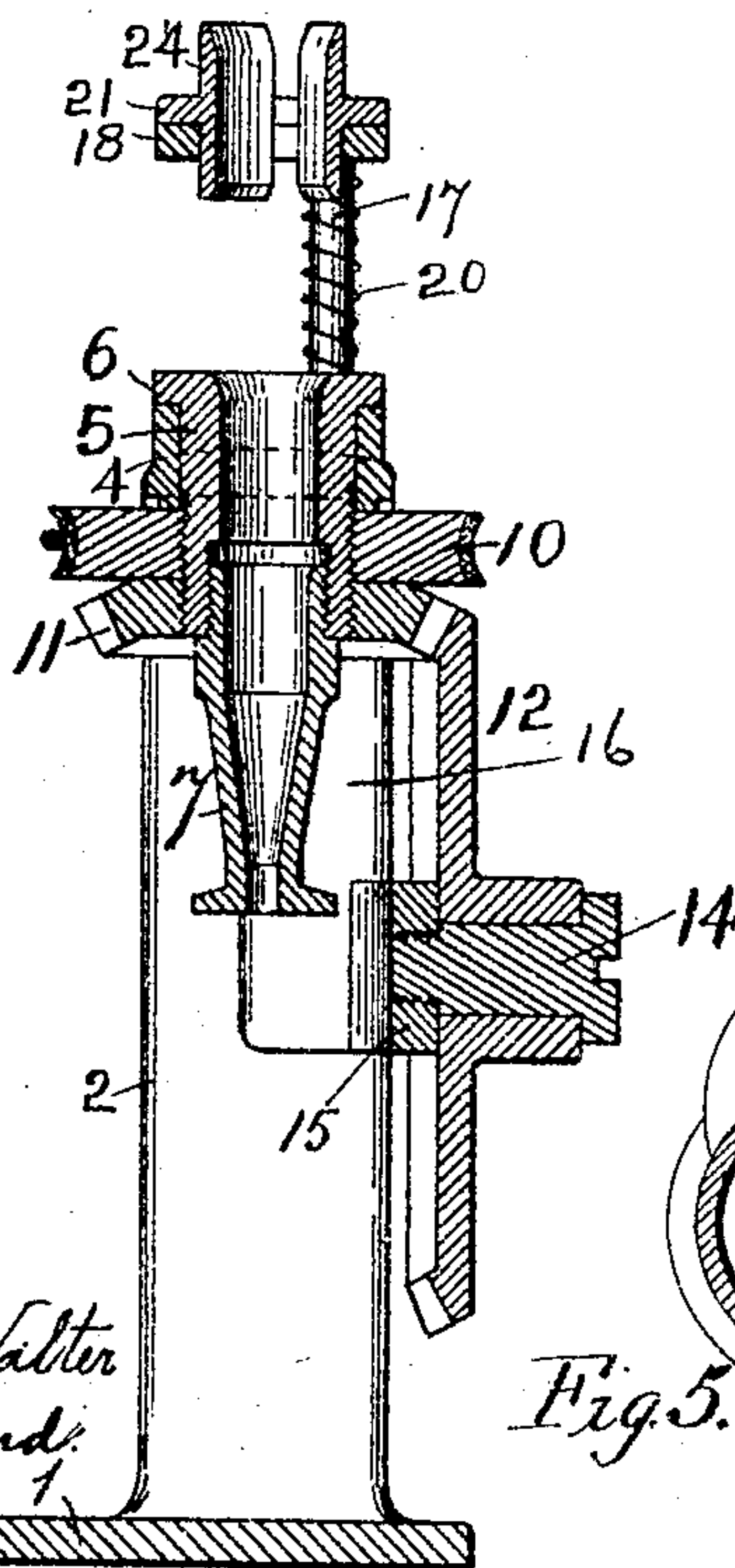


Fig. 4.

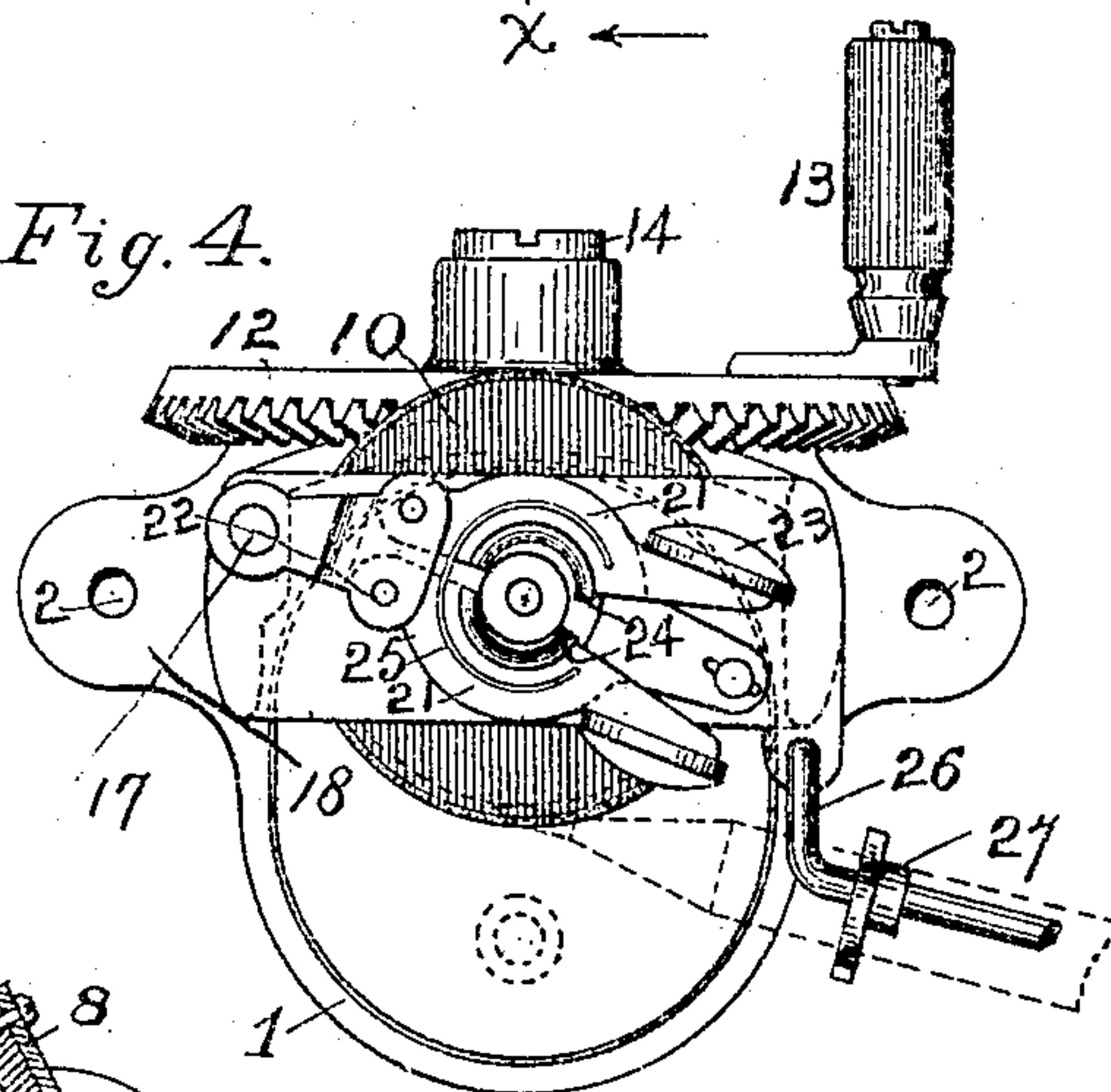
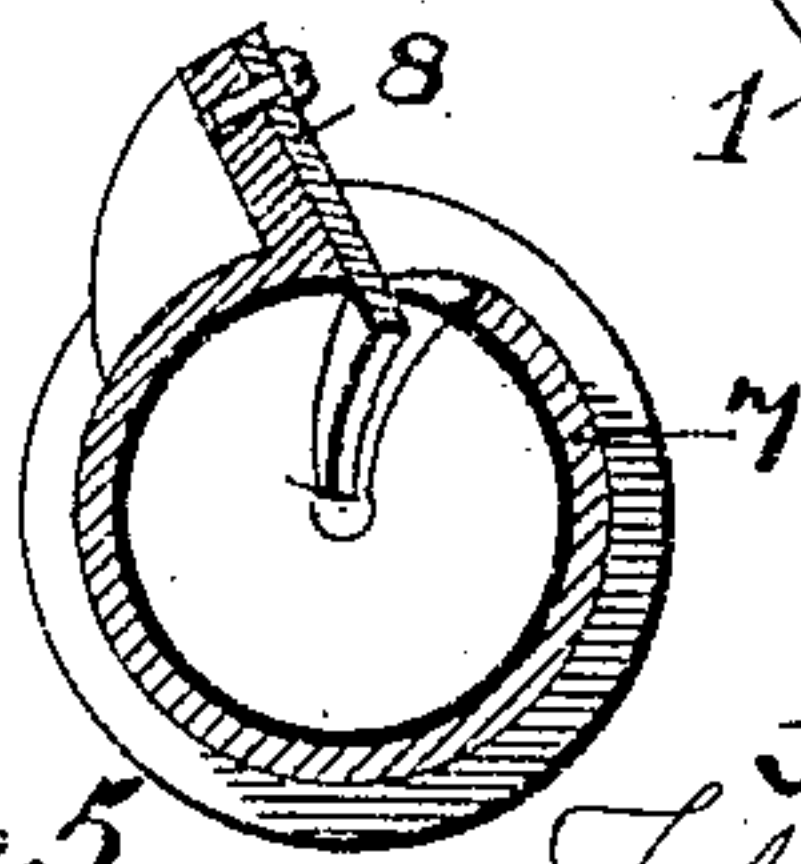


Fig. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FRANCIS P. HUYCK, OF SWANTON, AND JOHN D. R. LAMSON, OF TOLEDO,
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PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 774,880, dated November 15, 1904.

Application filed July 11, 1902. Serial No. 115,161. (No model.)

To all whom it may concern:

Be it known that we, FRANCIS P. HUYCK, of Swanton, Fulton county, and JOHN D. R. LAMSON, of Toledo, Lucas county, Ohio, citizens of the United States, have jointly invented certain new and useful Improvements in Pencil-Sharpeners; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

A familiar difficulty encountered in the use of pencil-sharpeners is that the knives employed for shaping the wood and the lead, unless great caution is exercised, breaks the lead. In a pencil-sharpener in which a grinder is employed for shaping the wood and the lead the operation of grinding the wood portion of the pencil is too slow. Attempts have been made to employ both knives and grinders in a single pencil-sharpening machine; but these machines have been so heavy, cumbersome, and complicated, as well as expensive, as to not find favor with users.

Our invention relates to a combined pencil sharpener and grinder in which the wood portion of the pencil is sharpened by a knife and the lead portion of the pencil is pointed by a grinding-wheel—such, for instance, as an emery-wheel.

The object of our invention is to furnish a cheap, simple, compact, and durable device of a small compass and great efficiency.

Our invention also relates to a knife especially adapted for use in our machine.

Our invention also relates to certain details of construction hereinafter described, and pointed out in the claims.

We attain the objects above stated by means of the devices and arrangement of parts hereinafter described and shown, and illustrated in the accompanying drawings, in which—

Figure 1 is an end elevation of our device; Fig. 2, a side elevation of the same; Fig. 3, a

central vertical sectional view taken on line $x-x$, Fig. 2; and Fig. 4, a top plan view of our machine. Fig. 5 is an enlarged cross-sectional view of the pencil-sharpening socket.

Like numerals of reference indicate like parts throughout the drawings.

In the drawings, 1 is a base from which rise at opposite sides two standards 2, connected at top by a horizontal plate 3. Through the center of the plate 3 is a vertical hole having at the top a boss 4.

5 is a vertical hollow shaft having at top a flange 6, which rests upon the top of the boss 4. Screwed into the bottom of the short tubular shaft 5 is a tubular longitudinally-slotted barrel 7, having a downwardly-tapered axial bore.

8 is a knife having its cutting edge inclined at the angle upon which the end of the pencil is to be tapered and secured upon the barrel 7 by screws 9 in such manner that its cutting edge projects inwardly beyond the surface of the inner tapered wall of the barrel 7.

While a straight inclined knife usually employed in connection with pencil-sharpeners having hollow tapered barrels may be used in connection with our machine, we prefer to employ a special knife, such as is shown in Fig. 2, in which the knife-blade is curved to conform to the desired contour of the finished point and in which the cutting edge of the knife forms the segment of a taper spiral. By means of this construction our knife cuts with a "shear" cut instead of across the grain of the wood as heretofore.

The lower end of the hollow shaft 5 is exteriorly screw-threaded, and onto this threaded portion is screwed just below the plate 3 a grinding-wheel 10, which is thus secured to the shaft in such manner that the grinding-wheel revolves with the shaft. Upon the lower end of the hollow threaded shaft 5 is tightly screwed a beveled pinion 11, the upper side of which rests against the grinding-wheel, the lower side of the pinion being at the top of the knife 8. The pinion 11 is driven by a vertical beveled gear-wheel 12, having a hand-crank 13. This gear-wheel is journaled upon

ism being capable of movement in the direction of the length of the pencil, and a stop which limits the movement of said clamping mechanism.

- 5 3. In a pencil-sharpener, in combination with a knife, a pair of clamping-jaws for holding the pencil when presented to the knife, a spring for holding said jaws normally asunder, a plate on which said jaws are pivotally

supported, and a spring-controlled sliding standard which supports said plate.

In testimony whereof we have affixed our signatures in presence of two witnesses.

FRANCIS P. HUYCK.

JOHN D. R. LAMSON.

Witnesses:

H. J. CHITTENDEN,

S. A. DORLAND.