J. D. STASSART.

PENCIL SHARPENER.

APPLICATION FILED DEC. 29, 1911.

1,040,048.

Patented Oct. 1, 1912.

2 SHEETS—SHEET 1.

Fig. 2.

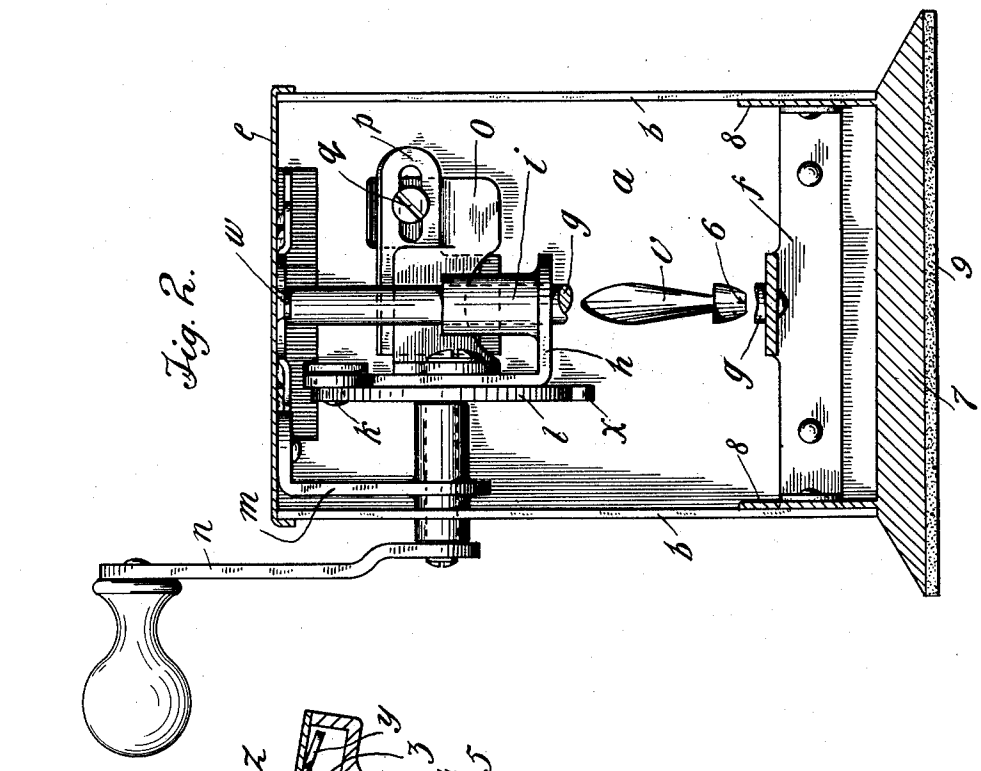
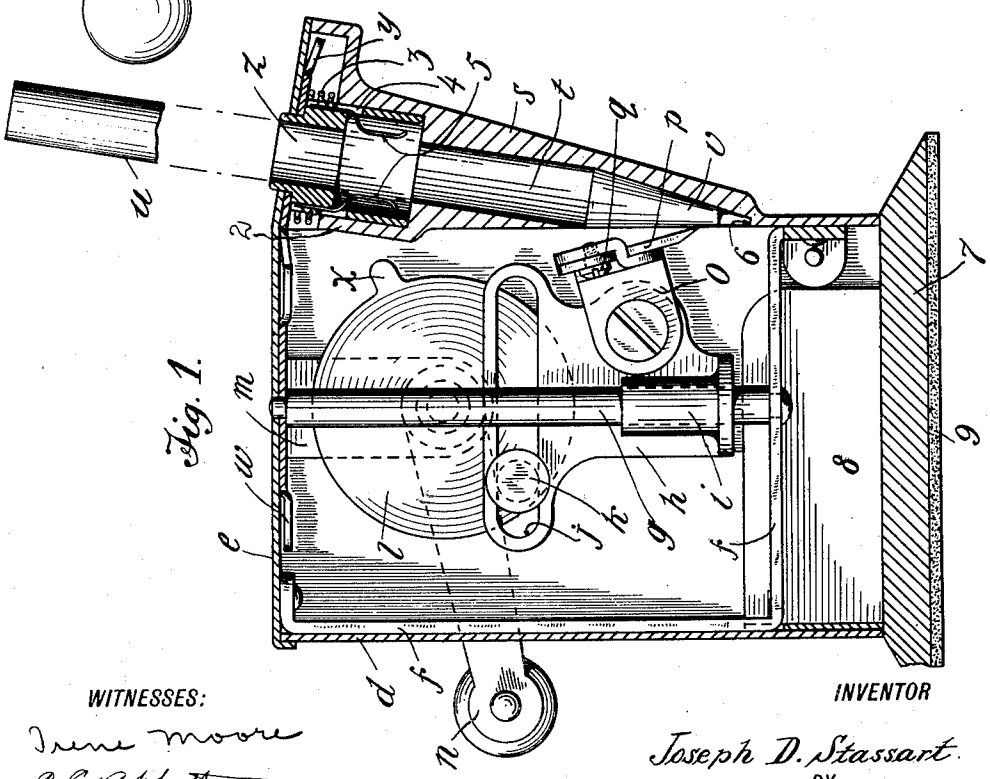


Fig. 1.



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2 SHEETS—SHEET 2.

Fig. 4.

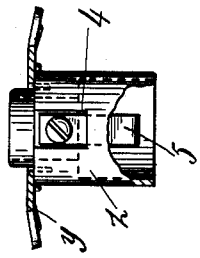


Fig. 5.

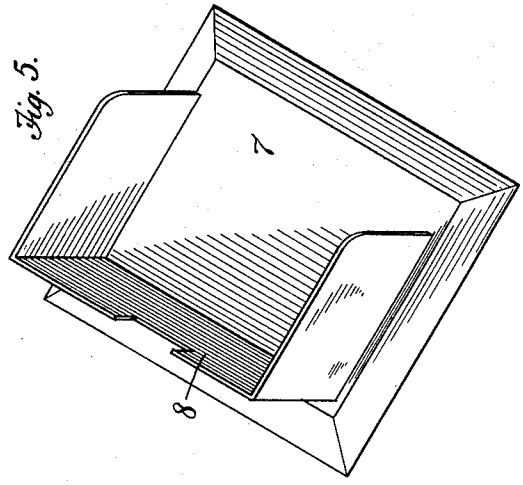
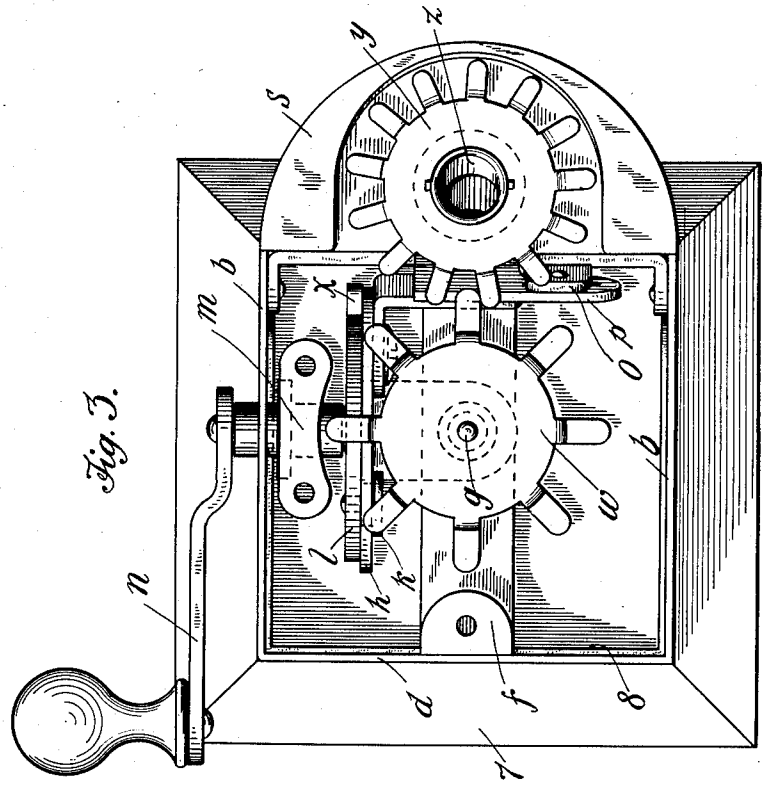


Fig. 3.



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UNITED STATES PATENT OFFICE.

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PENCIL-SHARPENER.

1,040,048. Specification of Letters Patent. Patented Oct. 1, 1912.

Application filed December 29, 1911. Serial No. 668,485.

To all whom it may concern:

Be it known that I, JOSEPH D. STASSART, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Pencil-Sharpeners, of which the following is a specification.

My invention relates to a machine for sharpening pencils, and has for its object to provide a machine of this character, in which the sharpening of the pencil is done by a single reciprocating knife moving parallel with the axis of the pencil.

A further object is to provide a machine of simple and compact construction, so shaped as to present a pleasing appearance, and to be conveniently used on a desk or table as a paper weight or the like.

In machines commonly used for this purpose it is necessary to feed the pencil by hand, which is very undesirable on account of the difficulty in feeding the pencil uniformly in this manner, and because an uneven pressure on the pencil usually results in the breaking of the graphite. One great advantage of my device is that the knife, while performing the cutting operation, automatically feeds the pencil, and that therefore perfect results are always insured.

The objects and advantages of my invention are clearly set forth in the following description, and illustrated in the appended drawings, in which:

Figure 1 is a sectional side elevation taken substantially through the center of the machine, Fig. 2 is a rear elevation of the machine with parts of the casing removed in order to disclose the operating mechanism, Fig. 3 shows a plan-view of my machine with the top-plate of the casing removed, Fig. 4 illustrates the pencil guide, and Fig. 5 is a perspective view of the base of the machine.

The casing comprises front plate *a*, sides *b*, back *d*, and top plate *e*. The sides and back are preferably made in one piece and detachably secured to the front and top plates, and in order to strengthen this construction I provide a bracket *f*, which forms a skeleton support for the whole casing, as clearly shown in the drawings.

A stud *g*, the lower end of which is fixed in bracket *f*, extends vertically to the top-plate, in which it is anchored. A frame *h* is slidably mounted on said stud, and is provided with a sleeve *i* encompassing the stud and adapted to keep the frame in perfect alinement with the stud. The upper part of frame *h* is made with a transverse perforation *j*, in which a pin *k* of disk *l* is seated. The spindle of said disk journals in a suitable bearing bracket *m*, secured to the top plate, and it extends through side plate *b*, being at its outer end provided with a hand crank *n*, by rotating which frame *h* is caused to reciprocate on rod *g*. A bracket *o* is adjustably secured to frame *h*, and a knife *p* is clamped on said bracket by means of clamping screw *q*. Perforation *r*, through which screw *q* extends, is elongated, as shown in Fig. 2, and the knife is thereby laterally adjustable on the bracket.

Front plate *a* is made with an enlarged portion *s*, and in this enlargement I provide a cylindrical chamber *t*, which acts as a receptacle for the pencil. It is noticed, that chamber *t* is positioned at an acute angle relative to the casing, and that the bottom part of the chamber is contracted, as indicated by letter *v* in the drawings, so that knife *p*, as clearly shown in Fig. 1, in sliding up and down the interior surface of the front plate, trims the end of the pencil to the desired shape. It is necessary however in a machine of this type to rotate the pencil on its axis during the sharpening operation, and this I accomplish in the following manner. Stud *g* is at the top made with a shouldered portion on which a star wheel *w* is rotatably supported, and a projection or cog *x* of disk *l* engages this star wheel at each revolution of the disk, thus imparting a slow rotary motion to said star wheel. The latter meshes with a second star wheel *y*, which is rigidly fixed on a sleeve *z*, and this sleeve is rotatably seated in the enlarged portion 2 of pencil chamber *t*. A coil spring 3 is placed under wheel *y*, and the pressure of this coil spring on the wheel is sufficient to prevent overthrow of the wheels, and perfect alinement of cog *x* with star wheel *w* is thus insured. Sleeve *z* is made with perforations 4, in which I mount resilient fingers 5, which bear against the sides of the pencil, and thus causes the latter to rotate with the sleeve.

The operation of my device is readily understood from the foregoing description. The pencil to be sharpened is first placed in receptacle *t*, whereupon crank *n* is rotated by hand, causing knife *p* to reciprocate, and

the pencil to revolve slowly. The pressure of the knife, in moving downward during the cutting stroke, is sufficient to feed the pencil downward, and the cutting and feeding therefore continues until the point of the pencil is arrested by bottom ledge 6 of the pencil receptacle. When this point is reached, the operator instantly feels, that the knife has discontinued to cut, and the pencil, being properly sharpened, is removed. Base 7 of my device is made with a flange portion 8, which snugly fits into the casing. The pencil shavings drop into this flanged portion, and are removed from time to time by simply pulling the casing and the base apart. I provide the bottom of the base with a soft felt lining, in order to prevent the machine scratching the table on which it is placed, and this lining is indicated by reference letter 9. The lateral adjustment of the knife is important, as it enables the user to shift the knife on the bracket *o*, so as to present a fresh cutting edge, whenever the knife gets dull at the cutting point. Bracket *o* is adjustably fixed on frame *h*, in order to position the edge of the knife correctly relative to the interior surface of front plate *a*.

Having thus described my invention, I claim:

1. In a device of the character described, a casing, a vertical stud fixed in said casing, a frame slidably mounted on said stud, a cutter support adjustably fixed on said frame, a cutter clamped on said support and adjustable laterally, hand operated means for reciprocating said cutter comprising, a disk journaled in the casing and provided with a driving pin, and a hand crank detachably secured to said disk, said driving pin seated in an elongated perforation of said frame, an inclined pencil receptacle, and means coöperating with said disk for rotating the pencil.

2. In a device of the character described in combination, a casing, a vertical stud fixed in the casing, a frame slidably mounted on said stud, a cutter support adjustably fixed on the frame, a cutter clamped on said support and adjustable laterally, hand operated means for reciprocating the frame, a driving member rotatably fixed in said casing, a hand crank detachably secured to said driving member, a pin rigidly fixed on said driving member, said pin engaging an elongated perforation of said sliding frame, an inclined pencil receptacle, a star wheel journaled on said stud and rotated by a cog on the driving member, a sleeve rotatably seated in said receptacle, a second starwheel rigid on said sleeve and meshing with said first star wheel, a coil spring operating to prevent overthrow of said wheels, and resilient fingers secured in said sleeve and adapted to bear against the sides of the pencil, whereby the pencil is caused to rotate with the sleeve.

In testimony whereof I affix my signature in the presence of two witnesses.

JOSEPH D. STASSART.

Witnesses:
IRENE MOORE,
C. W. HILLS.