

No. 773,315.

PATENTED OCT. 25, 1904.

R. J. ELLIS.
PENCIL SHARPENER.
APPLICATION FILED NOV. 19, 1903.

NO MODEL.

Fig. 1.

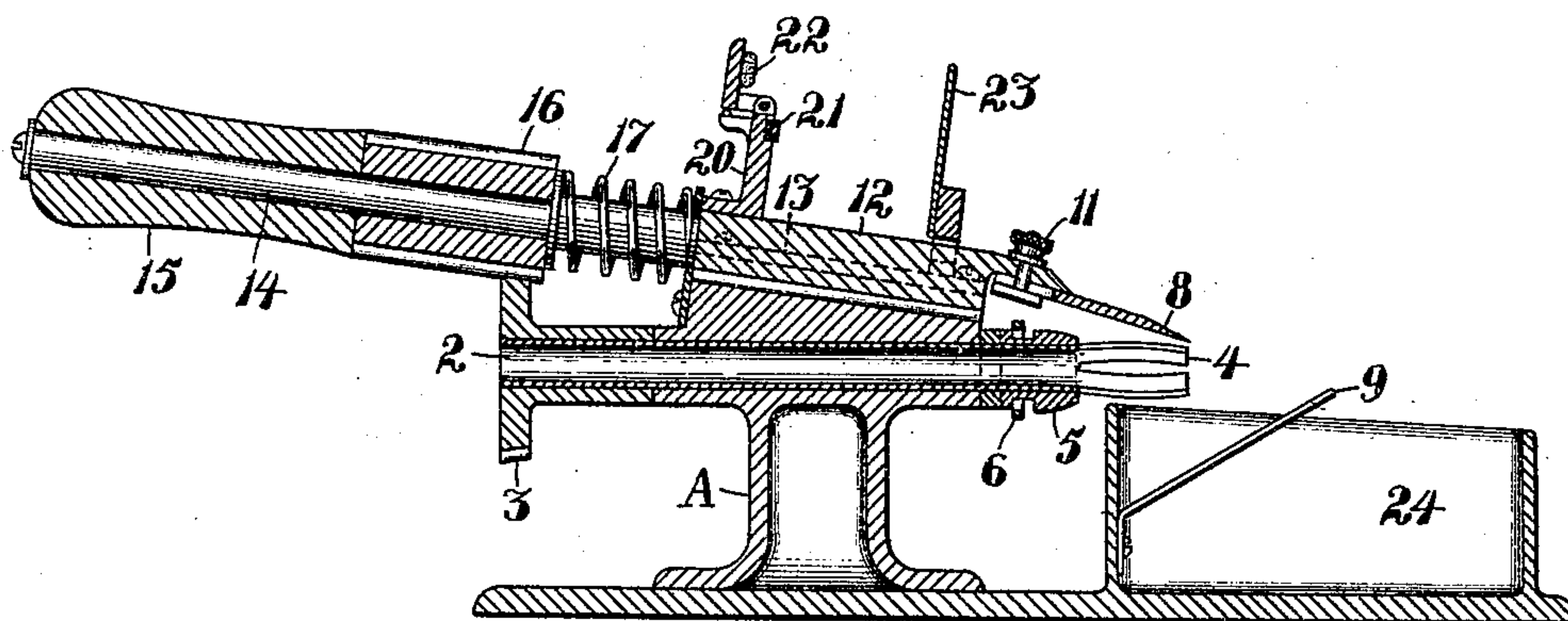
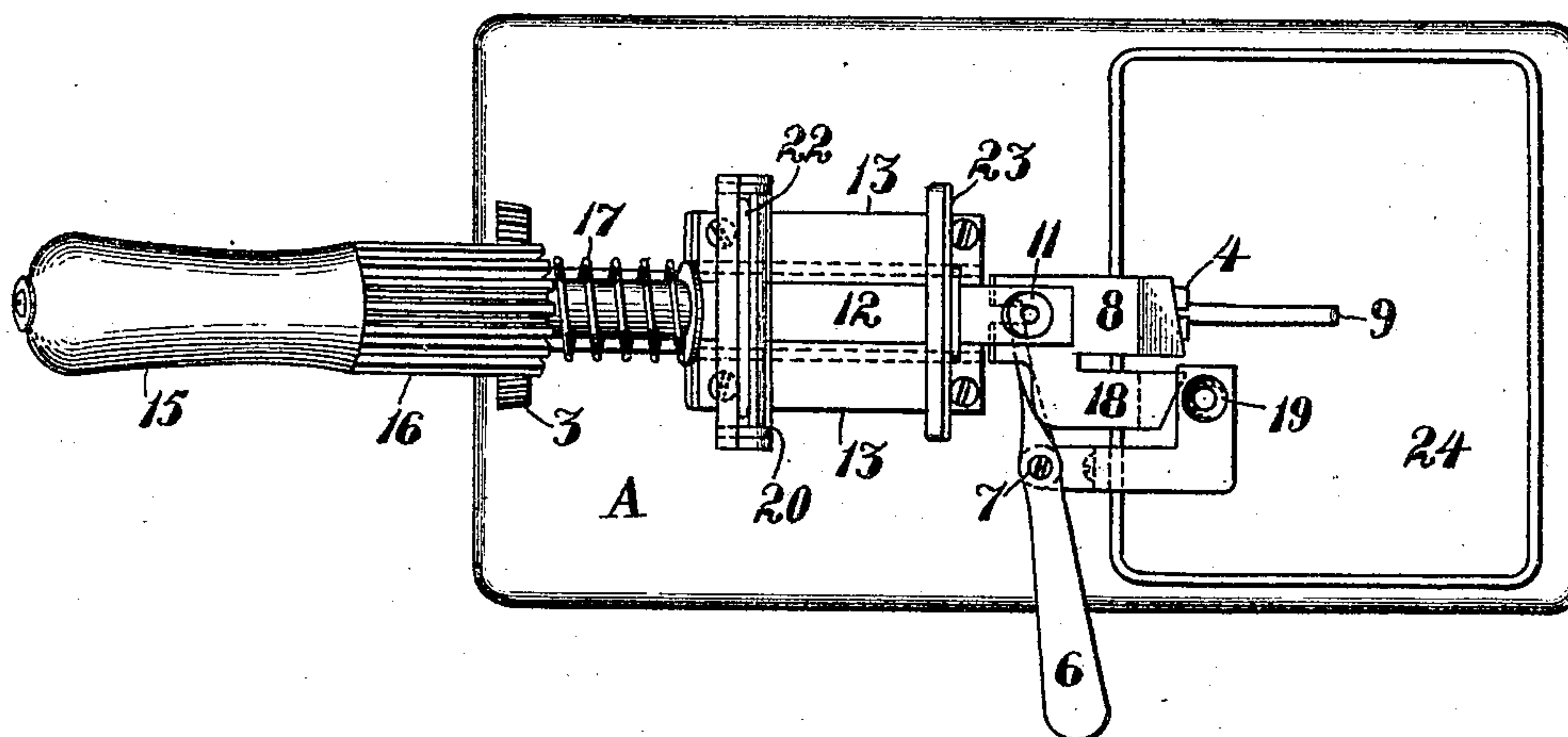


Fig. 2.



Witnesses:-
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UNITED STATES PATENT OFFICE.

ROBERT J. ELLIS, OF SAN FRANCISCO, CALIFORNIA.

PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 773,315, dated October 25, 1904.

Application filed November 19, 1903. Serial No. 181,834. (No model.)

To all whom it may concern:

Be it known that I, ROBERT J. ELLIS, a citizen of Chile, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Pencil-Sharpeners, of which the following is a specification.

My invention relates to means for sharpening pencils.

It consists of the parts and the construction and combination of parts hereinafter more fully described, having reference to the accompanying drawings, in which—

Figure 1 is a longitudinal vertical section of my apparatus. Fig. 2 is a plan of same.

A represents a suitable support for the operating parts of my device. This support may be of any desired size, shape, or material. It is here shown as comprising a base adapted to be secured fixedly to a counter or the like and a standard portion forming bearings for the cutting, sharpening, and pencil-holding means.

The pencil-holding means comprises a rotatable hollow shaft or tube 2, carrying a gear-wheel 3 at one end and provided with the expansible grippers or chuck 4 at the opposite end. The gear 3 is in the form of a section of a truncated cone with the base portion outermost for reasons to be seen later. The contraction of the chuck is accomplished by an external sliding sleeve 5, operated by a forked lever 6, fulcrumed in a fixed part, as at 7. The projection of the end of the pencil into the path of the reciprocating sharpener 8 and beyond the chuck is regulated by a guide 9. The sharpener 8 is here represented as chisel form, with the cutting edge transversely inclined relative to the line of reciprocation, and is adapted to be removably secured by suitable means, as the binding-screw 11, in a reciprocating part 12, movable in guides 13 and inclined slightly relative to the pencil-holder, so that the desired bevel will be given to the pencil-point. The part 12 has a reduced extension 14 at its outer end to receive the handle 15 and the gear 16, which latter has teeth corresponding with those on gear 3 and is in continual mesh therewith. The handle and gear may be integral, or they may be

made separate and afterward assembled on the stem extension 14, so as to be rotatable thereon in unison, suitable means being provided to retain the handle in either case in position on the stem. The incline of the edges of the teeth and interdental spaces on wheel 3 correspond with the incline of the reciprocating sharpener, and the width of gear 16 is equal to or greater than the extreme reciprocation of the sharpener, since the gears 3 and 16 are to remain always in mesh irrespective of whether the sharpener is thrust forward or is in normal retracted position through the agency of spring 17.

The sharpener 8 is formed with an integral lateral-cutting member 18, having a beveled chisel-point adapted to coact with the underside of a conical cigar-holder 19 to clip off the tip of a cigar whenever a cigar is inserted into the holder.

The part 12, which may be termed the "knife-carriage," has a projection 20, forming a printing-carriage and chase to receive suitable imprinting devices—as, for example a line of type or a rubber stamp 21. A hinged inking-pad 22 is adapted to supply ink to the stamp when needed and to act as a protector for the stamp when not in use, the pad being folded back out of the way when it is desired to use the stamp.

23 is a vertical bed-plate in the path of the printing-carriage against which a card, bill-head, or other matter to be imprinted may be supported.

To sharpen a pencil, the latter is inserted into either end of the tube 2 with the point end projecting flush with the tip of guide 9. The lever 6 is then thrown to clamp the pencil firmly, and by reciprocating the handle 15, turning it slightly after each return movement, the pencil is sharpened perfectly, being turned on its axis step by step through the medium of the gears 16 3 and the rotary pencil-holding means to present all sides to the action of the sharpener. If it is desired to cut off the tip of a cigar, stamp a card, or receipt or date a bill or memorandum, the same reciprocating movement of the handle suffices, it only being necessary to insert the cigar into holder 19 or place the card against

the plate 23. The several operations of sharpening a pencil, cutting a cigar, and printing may be done simultaneously, since the printing, sharpening, and cutting parts always
 5 move in unison and the card-support and cigar and pencil holding means always remain stationary.

A suitable receptacle 24, cast integral with support A, may be provided to receive the
 10 pencil-clippings and cigar-cuttings.

By having the cutter and sharpener removable they can be easily sharpened or renewed at any time with little labor and at small expense.

15 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A device of the character described comprising a base portion capable of being secured to a support, a hollow shaft or tube
 20 journaled in said base and extending beyond the outer end thereof, a pencil-holder on one projecting end of the tube, a sliding sleeve on said projecting end of the tube between the
 25 holder and the adjacent end of the base, means for imparting a sliding movement to the sleeve, a longitudinally-reciprocating cutter, means whereby the cutter may be reciprocated, and means whereby the tube is given a
 30 step-by-step rotation.

2. In a device of the character described the combination of a base having an inclined guideway, a carriage slidable in the guideway and provided with a cutter, a hollow shaft or tube
 35 rotatively mounted in the base and projecting beyond opposite ends thereof one of said projecting ends provided with pencil-holding

means, a sleeve slidable upon one of the projecting ends of the shaft between the holder and the end of the base, an operating-handle
 40 extension by which the carriage is moved in one direction, a spring for returning the carriage to normal position, and means including a long gear on the handle extension and a gear on a projecting end of the shaft where-
 45 by the tube is partially rotated coordinately with the reciprocation of the carriage.

3. In a device of the character described a tubular pencil-holder, a sharpener inclined relative thereto, a slidable carriage to which
 50 the sharpener is fixed, a long gear reciprocable with the carriage, and a gear on the tube engaged and rotated by said first-named gear.

4. The combination of a portable support, a rotary hollow shaft or tube journaled there-
 55 in, pencil-holding means associated with said tube, a knife, a reciprocating carriage for said knife, and interengaging gears on the carriage and tube for rotating the latter.

5. The combination with suitable support-
 60 ing means, of a rotatable pencil-support, a gear on said pencil-support, a reciprocating knife-carriage, and a rotatable part on said carriage provided with gear-teeth, engaging said pencil-support gear irrespective of the
 65 reciprocations of the carriage.

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

ROBERT J. ELLIS.

Witnesses:

JOS. L. COTE,
 STANLEY BATES.