Aug. 2, 1927. 1,637,849

G. E. BARTOL, JR

PENCIL SHARPENER

Filed Oct. 21, 1926

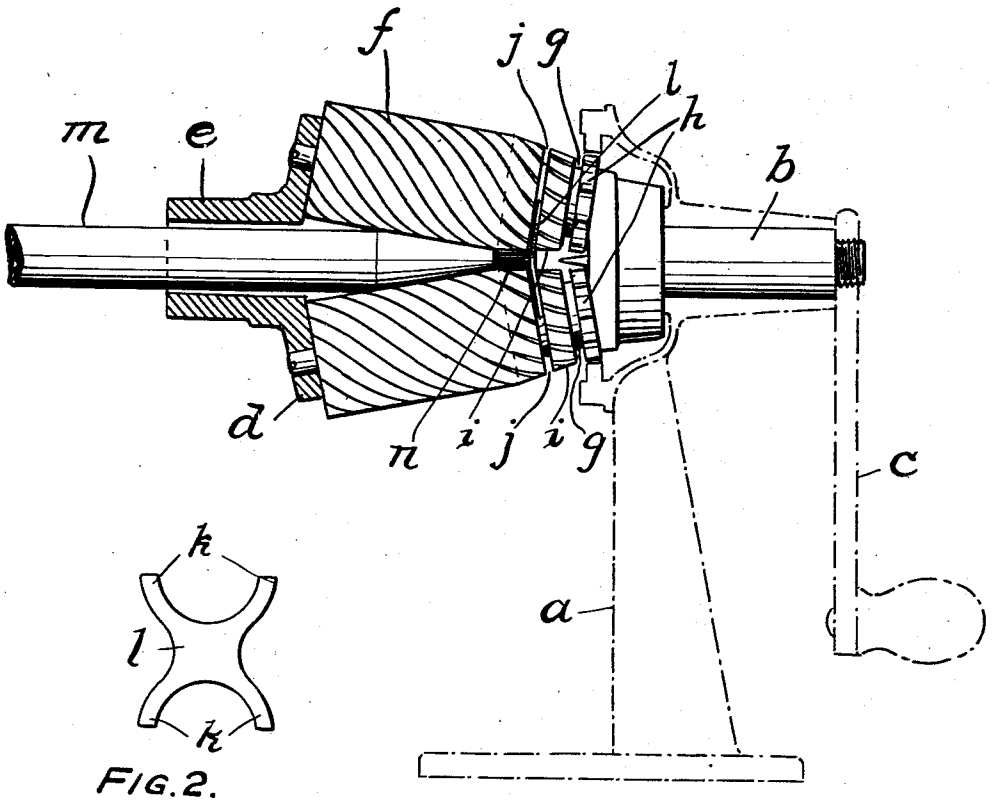


FIG. 2.

FIG. 1.

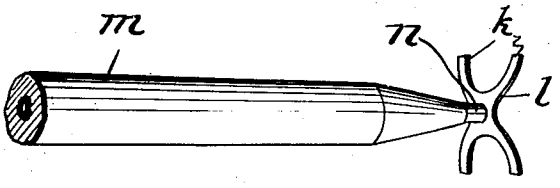


FIG. 3.

WITNESS:

INVENTOR

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UNITED STATES PATENT OFFICE.

GEORGE E. BARTOL, JR., OF ARDMORE, PENNSYLVANIA, ASSIGNOR TO C. HOWARD HUNT PEN COMPANY, OF CAMDEN, NEW JERSEY, A CORPORATION OF NEW JERSEY.

PENCIL SHARPENER.

Application filed October 21, 1926. Serial No. 143,086.

My invention relates to an improvement in pencil sharpeners and more particularly to that type of sharpener having a pair of rotary cutters supported in a rotating carrier.

Pencil sharpeners of the type to which my invention relates act to sharpen a pencil in such a manner as to put a tapered point on the lead, since the cutters are positioned with their axes at an angle. The tapered point is found highly desirable for the ordinary user of pencils. However, there are certain circumstances under which the tapered point is undesirable and in order to avoid tapering the lead of the pencil, it has been known to cut away the end portions of the cutters, that is, the portions operative on the lead, so that their cutting edges will lie in substantial parallelism.

The cutting away of the end portions of the cutters has been found satisfactory for producing a blunt cylindrical lead point on the sharpened pencil, where the pencil lead is of normal size. However, where such a point is desired on a pencil in which the lead is larger than normal, such, for example, as are used in schools, where such a point is highly desirable, the pencil sharpeners heretofore produced are substantially unsatisfactory. Thus, in producing the desired point they necessarily produce a point of such excessive length and so easily broken as to negative the advantage of the blunt point.

Now, it is the object of my invention to produce a pencil sharpener so constructed as to readily produce a blunt cylindrical lead point of a desirable length.

Having now indicated, in a general way, the nature and purpose of my invention, I will proceed to a detailed description thereof with reference to the accompanying drawings in which there is illustrated a preferred embodiment and in which:—

Fig. 1 is a view partly in section and partly diagrammatic of a pencil sharpener embodying my invention.

Fig. 2 is a plan view of a pencil stop.

Fig. 3 is a perspective view showing a pencil sharpened as in the sharpener shown in Figure 1.

Referring to the drawings *a* indicates a base or stand, in which is journalled a shaft *b* upon one end of which is threaded a handle *c* and upon the other end of which is mounted a cutter carrier *d*, all as is usual in pencil sharpeners of the type to which my invention relates.

The cutter carrier is formed to provide a pencil guide *e* and serves to support a pair of rotating cutters *f* each provided at one end with a gear *g*, which meshes with a fixed ring gear *h* supported by the base or stand so that when the carrier is rotated the cutters will be themselves rotated in the carrier.

The cutters *f* are mounted in the carrier in angular relationship, in order that they will cut away the wood of a pencil on a taper, as is desirable. The cutters adjacent their inner ends are cut away as at *i*, so that their cutting surfaces will lie in substantial parallelism at a distance apart which will accommodate a large pencil lead. Thus, as shown in Figure 1, the cutting surfaces of the cutters throughout most of their extent are at an angle, while for a portion of their extent, adjacent their inner ends, they are in parallelism.

Spaced from the extreme inner end of each of the cutters is an annular slot *j* in which are adapted to extend prongs *k* formed on opposite sides of a pencil stop *l* so that the stop may be supported between the cutters, as shown in Figure 1. The slots *j* may be positioned at any desired point on the cutters within the extent of their cutting surfaces in parallelism.

In operation if the end of a pencil *m* be inserted through the pencil guide *e*, between the cutters, and the cutters rotated, the wood of the pencil will be cut off on a taper and the pencil may be gradually advanced between the cutters until the wood is removed from the lead at the extreme end. With further advance of the pencil the lead *n*, as the wood is cut back, will advance between the parallel cutting surfaces *i*, which will trim it, removing any remaining wood, without destroying its cylindrical contour or sharpening the point, until the end of the lead contacts with stop *l*, which is positioned to stop the pencil after a desired length of lead has been exposed by the removal of the wood therefrom.

It will now be noted that in accordance with my invention a sharpener is provided by the use of which a pencil may be provided with a blunt, cylindrical point of desired length. It will, of course, be obvious

that by cutting away the cutters sufficiently to provide necessary distance between the parallel portions thereof and positioning the slots *j* for stop *l* that a blunt, cylindrical point of any desired length can be put on a pencil having a lead of any reasonable size.

Having now fully described my invention, what I claim and desire to protect by Letters Patent is:—

1. In a pencil sharpener, in combination, a base, a cutter carrier rotatably supported by the base, a pair of cutters rotatably supported by the carrier and having annular slots formed therein between their ends and a pencil stop projecting into said slots and extending between said cutters.

2. In a pencil sharpener, in combination, a base, a cutter carrier rotatably supported by the base, a pair of cutters rotatably supported in angular relationship by said carrier, said cutters being cut away adjacent one end of the carrier to form surfaces in substantial parallelism and having annular slots formed therein and a pencil stop projecting into said slots and extending between said surfaces in parallelism.

3. In a pencil sharpener, in combination, a base, a cutter carrier rotatably supported by the base, a pair of cylindrical cutters rotatably supported in angular relationship by said base, said cutters having cylindrical surfaces adjacent one end thereof extending at an angle to their axes and having annular slots formed therein and a pencil stop extending into said slots and between said surfaces.

In testimony of which invention, I have hereunto set my hand, at Camden, N. J., on this nineteenth day of October, 1926.

GEORGE E. BARTOL, JR.