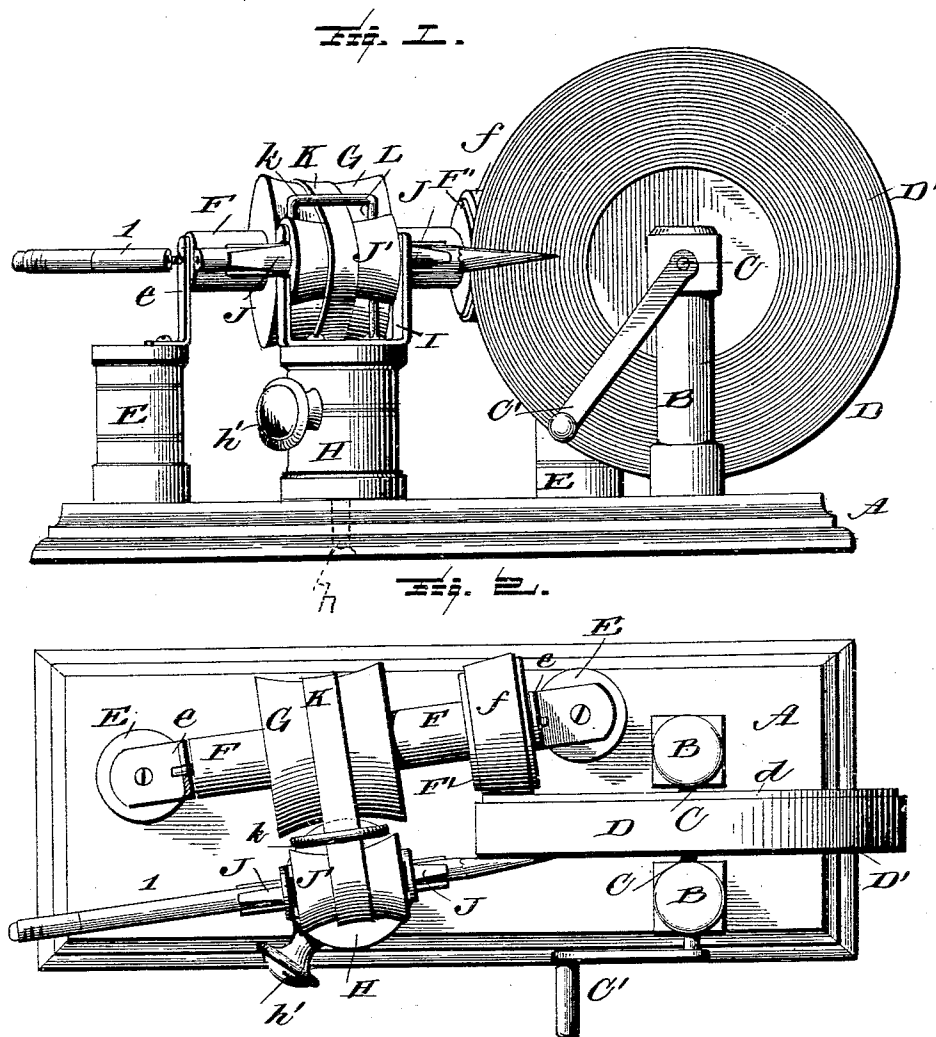


(No Model.)

H. A. BENEDICT.
PENCIL SHARPENER.

No. 476,361.

Patented June 7, 1892.



Witnesses
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UNITED STATES PATENT OFFICE.

HEMAN A. BENEDICT, OF SYRACUSE, NEW YORK, ASSIGNOR OF ONE-HALF
TO T. W. MEACHEM, OF SAME PLACE.

PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 476,361, dated June 7, 1892.

Application filed September 15, 1891. Serial No. 405,777. (No model.)

To all whom it may concern:

Be it known that I, HEMAN A. BENEDICT, a citizen of the United States, residing at Syracuse, in the county of Onondaga, State of New York, have invented certain new and useful Improvements in Pencil-Sharpener, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in pencil-sharpener of that class in which are embodied a rotary grinding-wheel and pencil-rotating devices actuated from the said wheel; and it has for its objects, among others, to provide an improved device of this character of few parts and those not liable to derangement, to provide simple means for turning the pencil-holder at different angles with relation to the grinding-wheel, and to simplify and improve the machine as a whole.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a view, partly in perspective and partly in side elevation, of my improved pencil-sharpener. Fig. 2 is a top plan thereof.

Like letters of reference indicate like parts in both of the views.

If the device is to be portable, it should be provided with a suitable base. If it is to be permanently affixed, the standards and supporting parts may be affixed to the table or other support in any desired manner.

In the drawings the letter A designates the support, which in this instance may be assumed as being a base of a portable device. It may be of any desired material and of preferred shape, preferably, however, rectangular, as shown, and may be made as ornamental in appearance as wished for. From this base, near one end, rise the uprights or standards B, two in number, and in which is journaled in suitable bearings the shaft C, carrying the wheel D, which is designed to revolve between

said uprights, as seen in Fig. 2. One end of the shaft is extended and is provided with a crank and handle C', by which it may be rotated when desired. One face of this wheel is provided with a surface D' of emery or analogous substance, against which the lead of the pencil is designed to be revolved to give a point to the same. This may also be used for sharpening knives and the like. The opposite face of the wheel is provided with an annular bearing-surface d, for a purpose which will hereinafter appear.

E are uprights or standards supported on the base and at their upper ends provided with suitable bearings e for the pintles of the roller or shaft F, which are suitably journaled therein, and which carries at one end a friction-roller F', the periphery of which is provided with a wearing-surface f of suitable material, as rubber, in the form of a sleeve placed thereon and held by cement or in any other desired manner. Owing to the inclination of the shaft, the acting face of the roller F' is beveled, as seen in Fig. 2, so as to have a flat bearing on the bearing d of the wheel D, with which it revolves in contact.

On the shaft F is a pulley G, which is preferably concaved, as seen in both views, so as to prevent displacement of the band or belt when the pencil-holder is turned in its various positions.

H is a standard held to the base by a screw-pivot h, so that it may be turned in any desired position and be held in such position, the standard being provided with a suitable knob, handle, or other provision h', by which it may be turned on its pivot. To the upper end of the standard there is secured a yoke I, so as to be moved therewith, and in the upright portions of this yoke is removably journaled the hollow shaft J, the ends of which are split, as seen in both views, to form a spring-holder for the pencil, the said split portions being such as to firmly hold a pencil of small diameter and yet yield sufficiently to admit one of larger diameter. On this hollow shaft and designed to move therewith between the upright portions of the yoke is the hub or pulley J', which is preferably concaved, as seen in both views, to prevent dis-

placement of the belt or band K, (preferably elastic,) which passes over the said pulleys G and J', as shown.

L is a guard rising from the base, and at its upper end, which is arranged slightly above the upper faces of the pulleys, it is provided with a cross-bar l, the belt or band passing through between the upright portions of the guards, as seen best in Fig. 1.

With the parts thus constructed the operation is apparent and is as follows: A pencil l is placed in the holder, where it is firmly clasped by the spring-arms at each end thereof, the pencil being pushed through the holder sufficiently far for its point to come in contact with the emery D' on the face of the wheel D, as seen in both views. The handle C' is then turned, which imparts motion to the wheel D, and this in turn, through the friction-wheel F', shaft F, pulleys G and J', and band or belt K, revolves the pencil, so as to give it a uniform temper and finish. The manipulation of the standard H presents the point or end of the pencil at different angles to give the required point thereto. The guard, together with the concave pulleys, prevents displacement of the band or belt when the holder is turned in the different positions.

What I claim as new is—

1. The combination, with the wheel and the

friction-roller arranged to move in contact therewith, of the rotatable standard, the pencil-holder carried thereby, a shaft parallel with the holder and receiving its motion direct from the wheel, and a band for revolving the said holder from said friction-roller, as set forth.

2. The combination, with the rotary wheel, of the rotatable standard, a revoluble pencil-holder, a pulley mounted to revolve therewith, and a band passed over the said pulley and receiving its motion from the rotary wheel through intermediate frictional devices, as set forth.

3. In a pencil-sharpener, the combination, with the rotatable standard, of a yoke thereon, a hollow shaft removably journaled in the upright portions of the yoke and having spring portions at the ends, a pulley mounted to revolve with said shaft, a revoluble wheel, and intermediate connections between the wheel and the said pulley, substantially as specified.

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

HEMAN A. BENEDICT.

Witnesses:

W. A. BOTTUM,

T. W. MEACHEM.