

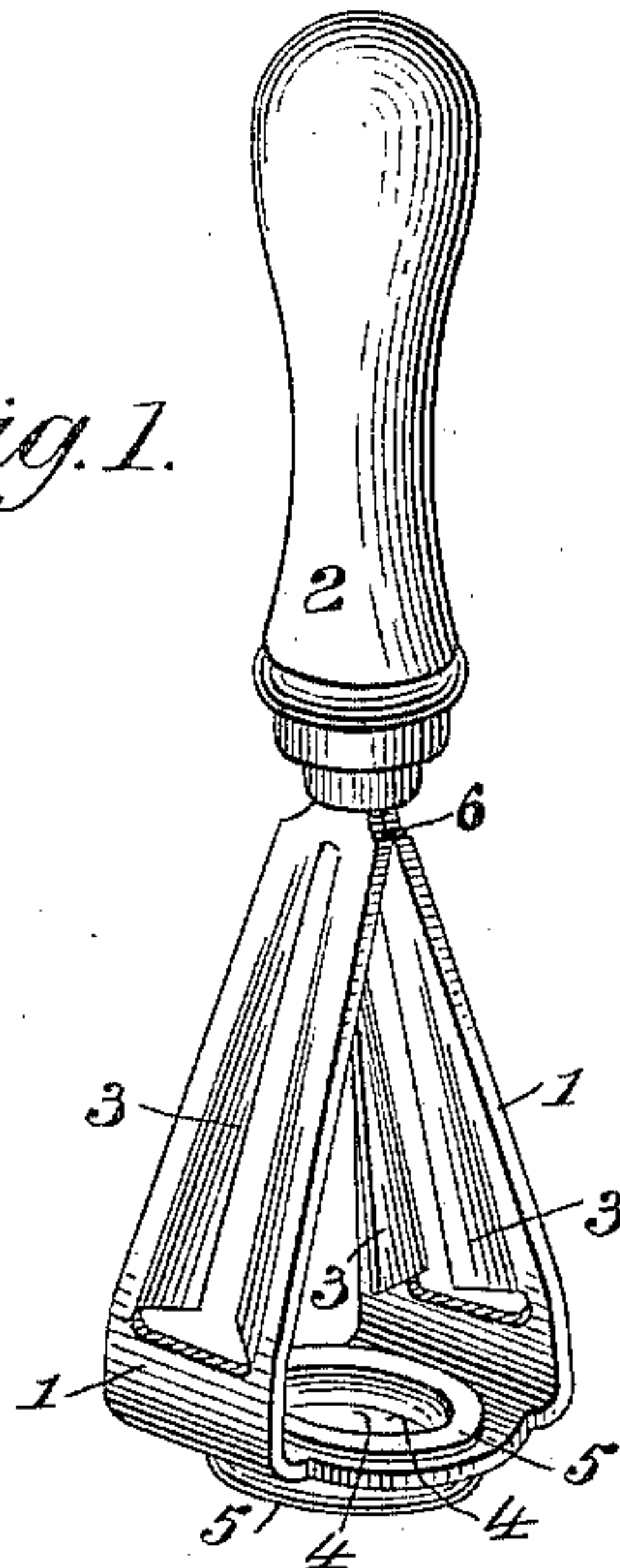
(No Model.)

W. H. LAMSON.  
PENCIL SHARPENER.

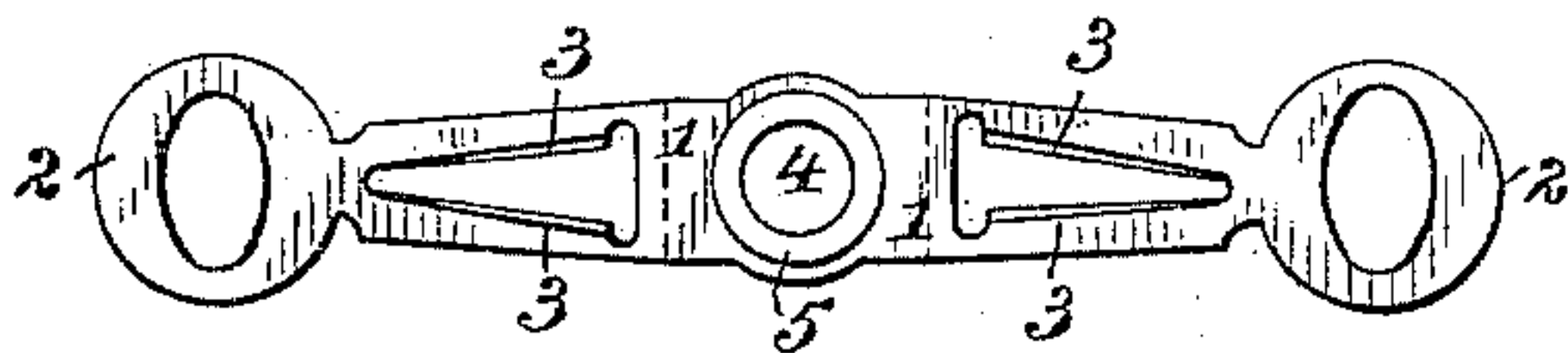
No. 411,526.

Patented Sept. 24, 1889.

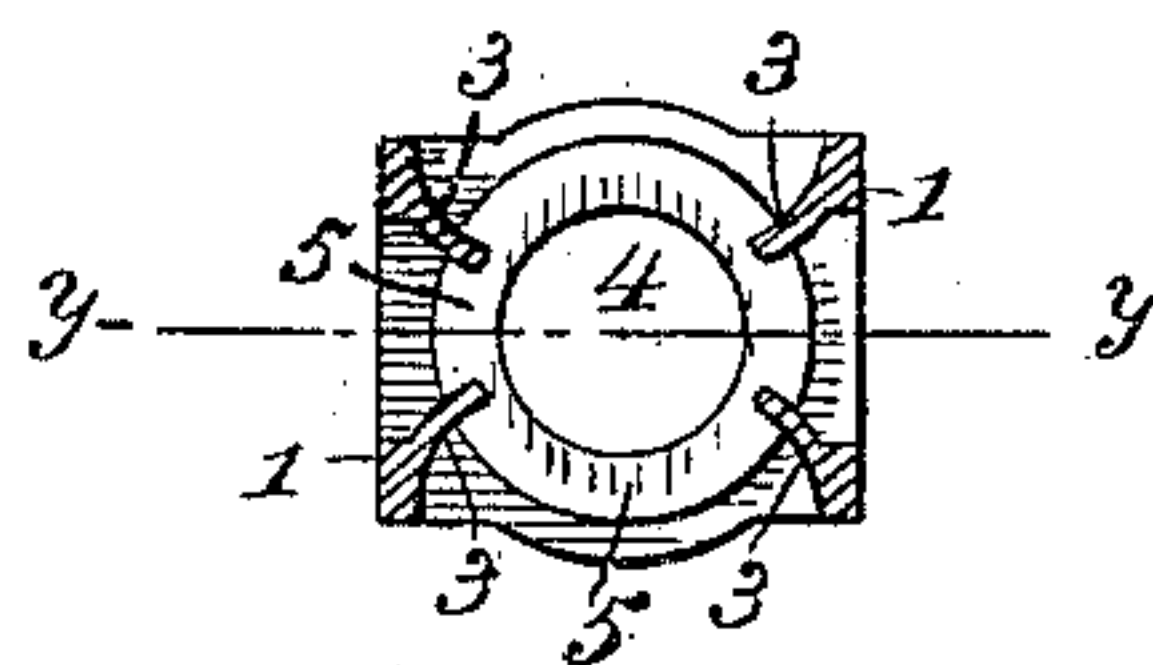
*Fig. 1.*



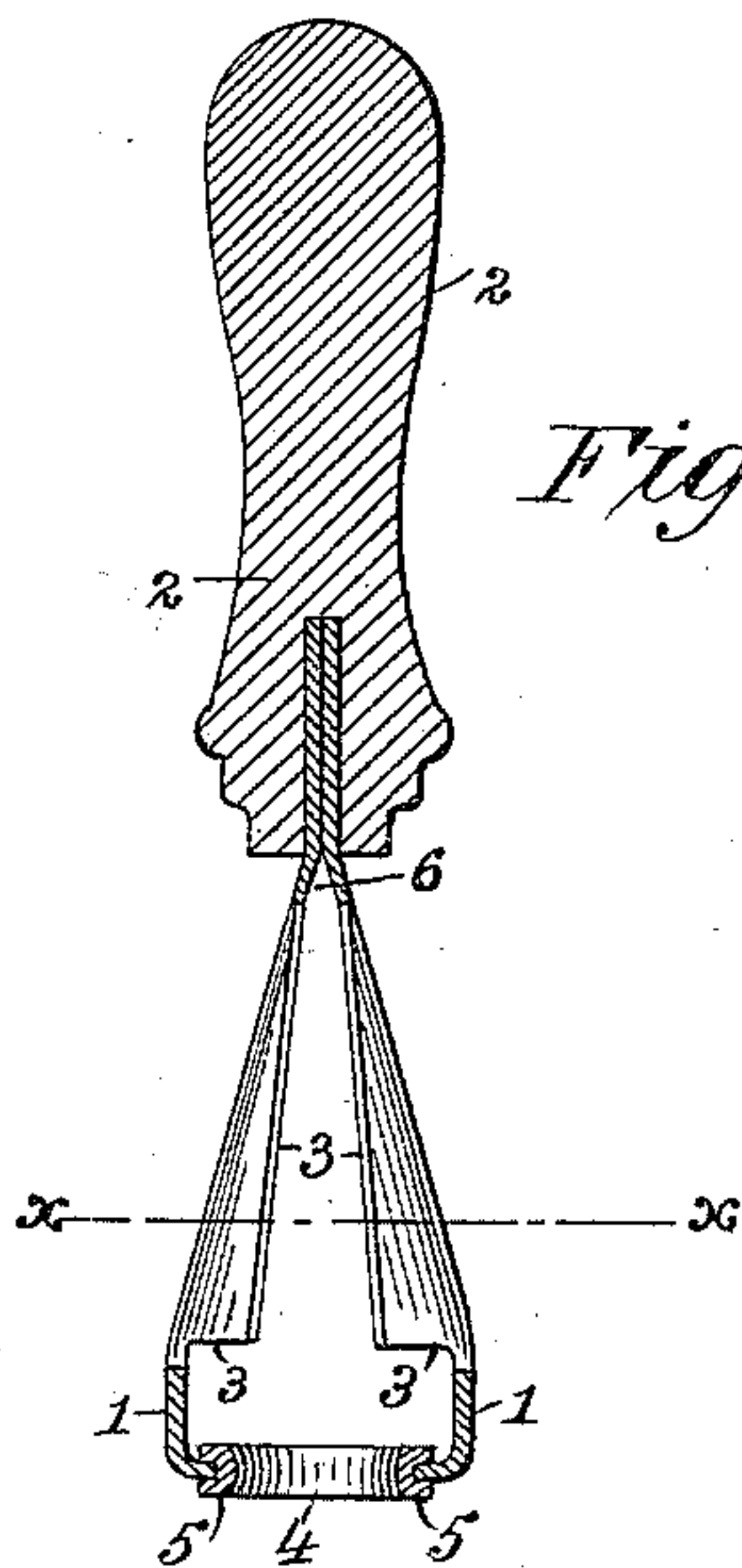
*Fig. 4.*



*Fig. 3.*



*Fig. 2.*



*Witnesses*

*Wm. J. Tannock*  
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*Inventor*

*Warren H. Lamson*  
by *J. H. Hubbard atty.*

# UNITED STATES PATENT OFFICE.

WARREN H. LAMSON, OF BRIDGEPORT, CONNECTICUT.

## PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 411,526, dated September 24, 1889.

Application filed February 23, 1888. Serial No. 264,919. (No model.)

### *To all whom it may concern:*

Be it known that I, WARREN H. LAMSON, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Pencil-Sharpeners; and I do hereby 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.

My invention relates to certain new and useful improvements in pencil-sharpeners, and has for its object to provide a device of this description which shall be simple in its construction and cheap to manufacture, and which shall be rapid and efficient in its action; and with these ends in view my invention consists in the details of construction and combination of elements hereinafter to be more fully set forth, and then recited in the claims.

In order that those skilled in the art to which my invention appertains may fully understand how to make and use the same, I will describe my improvement in detail, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective; Fig. 2, a longitudinal section, at line *yy* of Fig. 3; Fig. 3, a transverse section at line *xx* of Fig. 2; and Fig. 4, a plan view of an unbent blank, showing a slight modification.

Similar reference-numbers indicate the same parts in all the figures of the drawings.

1 represents an open frame, which I prefer to make by bending a suitably-shaped sheet-metal blank into the required form and then securing the two extremities within a suitable handle 2, as seen at the sectional Fig. 2.

3 are cutting-blades secured to said frame and projecting toward the center thereof. These blades I prefer to form integral with the frame by slitting the metal of the blank and turning inward the tapering edges of the slit, as clearly appears from the figures; but the blades may be made separate and attached to the frame, if such a method of manufacture should be found desirable. The circular hole 4 at the center of the blank is for the insertion of the pencil, and an eyelet 5 is preferably flanged over the edges of said hole, so

as to afford a smooth bearing-surface for the pencil and prevent the body of the latter from being in any way cut or marred while in process of sharpening. I arrange the blades so that those diagonally opposite shall operate as a pair and cut the pencil simultaneously when the latter is rotated. (See Fig. 3.) One pair, therefore, will cut when the pencil is turned in one direction and the other pair when the pencil is turned in the opposite direction, so that the necessity of turning the pencil to be sharpened continuously in one direction is done away with.

The meeting of the sides of the blank below the lower ends of the blades form a stop against which the end of the pencil may abut when sufficiently sharpened. (See Figs. 1 and 2 at 6.)

The cutting action of the blades ceases when the end of the pencil comes in contact with this stop. Therefore wasteful cutting of the pencil is avoided, and by reason of the fact that the stop is below the ends of the blades the pencil can never be sharpened to a needle-point.

In Fig. 4 I have shown a slightly-modified construction, in which the handle is formed from the broadened ends of the blank, which, as will be readily understood, are brought together by the bending, and may then be joined or secured by any ordinary clasp or other fastening device.

My device is particularly adapted for slate-pencils, and in that case the squarely-cut edges of the blades as left by the dies are sufficiently sharp to scrape or cut the pencil to a point. The blades may, however, be ground to a sharp edge for use upon wooden and other similarly-incased pencils, whether lead or slate.

It will be observed as an obvious advantage of my sharpener that the cuttings or scrapings from the pencil have a free avenue of escape at each side of each blade.

In this my invention I do not wish to be confined to the precise details of construction which I have herein shown and described, since many minor changes entirely within the province of mechanical skill may be made therein without departing from the spirit of my invention, the gist whereof lies in the open frame, through the sides of which the



shavings may readily escape, and the plurality of blades secured to said frame and adapted to cut in both directions.

I claim—

- 5 1. The combination, with the sheet-metal frame having at its end an opening for the insertion of the pencil to be sharpened, of a number of cutting-blades on the sides of the frame and between the edges of the said sides  
10 and projecting radially inward toward the line of insertion of the pencil and arranged in pairs to act upon the pencil when rotated both back and forth, substantially as described.
- 15 2. A pencil-sharpener comprising a sheet-metal frame having an end opening for the insertion of the pencil, and its sides slit longitudinally, and the edges along the slit  
20 turned in radially with relation to an inserted pencil and arranged to act in pairs upon a pencil when rotated axially in either direction, substantially as shown and described.

3. A pencil-sharpener consisting of a bent sheet-metal blank having a plurality of inwardly-turned blades arranged thereon, a hole for the insertion of the pencil to be sharpened, an eyelet flanged over the edges of said hole, and a suitable handle, all arranged as described, and for the purpose set forth.

4. The combination, with the open blade-carrying frame, of the eyelet secured within the opening at the top of the frame, whereby the body of the pencil is protected as against abrasion, substantially as set forth.

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

WARREN H. LAMSON.

Witnesses:

S. H. HUBBARD,  
BENJN. F. SQUIER.