

(No Model.)

R. D. RICHARDSON.
PENCIL SHARPENER.

No. 418,066.

Patented Dec. 24, 1889.

Fig 1

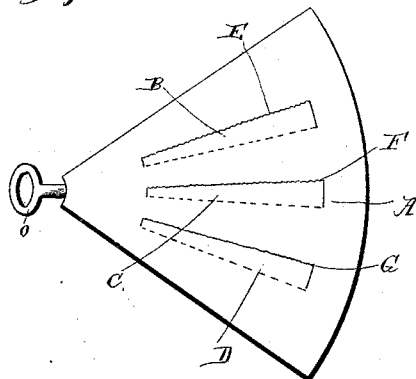


Fig 2.

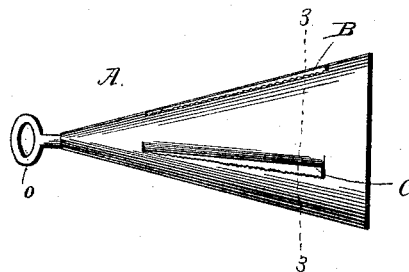


Fig 3

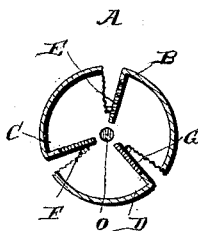


Fig 4

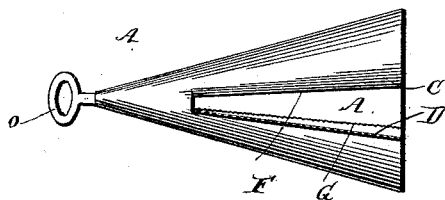
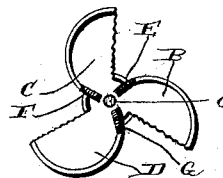


Fig 5.



WITNESSES
J. H. Brown.
Lawrence Perry,

INVENTOR
Robert Dennis Richardson
by A. P. Smith
his Attorney

UNITED STATES PATENT OFFICE

ROBERT DENNIS RICHARDSON, OF WINNIPEG, MANITOBA, CANADA.

PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 418,066, dated December 24, 1889.

Application filed April 25, 1889. Serial No. 308,567. (No model.)

To all whom it may concern:

Be it known that I, ROBERT DENNIS RICHARDSON, a subject of the Queen of Great Britain, residing at Winnipeg, in the Province of Manitoba and Dominion of Canada, 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 consists in the pencil-sharpener made of one piece of metal, in the manner hereinafter to be described and illustrated.

In the drawings, Figure 1 shows a blank from which my pencil-sharpener is formed by stamping out the portions indicated in dotted lines. Fig. 2 shows a side view of the blank bent into its conical form. Fig. 3 is a section of Fig. 2 taken on the line 3 3. Figs. 4 and 5 are side views and end views, respectively, of a modified form of my pencil-sharpener.

The pencil-sharpener hereinafter described and illustrated is composed of the elements arranged in the manner described in the patent granted to Donald Codd March 19, 1889, and numbered 399,899. Instead, however, of consisting of saw-blades set in a frame, in the manner described and illustrated in the said patent, my invention is made all from one piece of metal, which is bent and stamped into the desired form, as shown in the drawings.

A is a blank from which my pencil-sharpener is made. The parts B, C, and D, having the serrated edges E, F, and G, as shown in the dotted lines in Fig. 1, are stamped out and bent in. This furnishes the serrated edges having their lines converging in a point,

so as to form the conical point upon the pencil when the latter is revolved within the pencil-sharpener. The construction is clearly shown in Figs. 2 and 3.

O is the handle, which may be of any suitable and convenient form, and is a projection of the same piece of metal which constitutes the operative part of the pencil-sharpener.

My pencil-sharpener can also be made in a modified form by stamping the blank into three separate parts, which shall be connected by a portion at the apex of the said blank, and then bending these three portions, or twisting them on their axes, so that the serrated edges shall be innermost and will operate on the pencil in the well-known manner.

I have illustrated and described my invention as made with only three operative edges. It is of course evident that the same can be made in the same manner with four or any desirable number of serrated cutting-edges.

Having therefore described my invention, both in essence and detail, what I claim as new, and desire to protect by Letters Patent, is—

1. As an article of manufacture, a conical pencil-sharpener with serrated edges, made all of one piece of sheet metal, said serrated edges being bent inwardly at or nearly at a right angle, substantially as described.

2. As an article of manufacture, a pencil-sharpener made of one piece of metal bent into conical shape, and having suitable serrated portions stamped out and bent inwardly, all substantially as described.

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

ROBERT DENNIS RICHARDSON.

Witnesses:

JOHN A. E. WARD,
ROBT. WILHELM.