

(No Model.)

J. DEUTSCHBEIN.
PENCIL SHARPENER.

No. 545,350.

Patented Aug. 27, 1895.

Fig. 1.

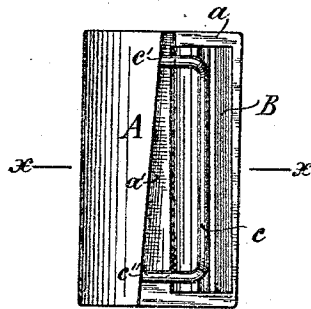


Fig. 2.

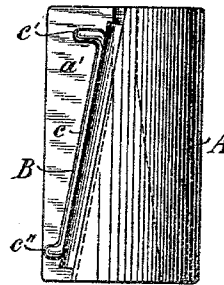


Fig. 3.

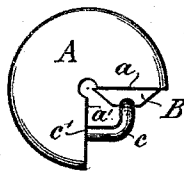


Fig. 4.

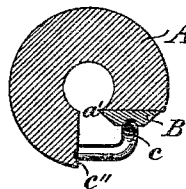


Fig. 5.



Witnesses

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JOSEF DEUTSCHBEIN, OF EUSKIRCHEN, GERMANY.

PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 545,350, dated August 27, 1895.

Application filed March 30, 1895. Serial No. 543,820. (No model.)

To all whom it may concern:

Be it known that I, JOSEF DEUTSCHBEIN, a subject of the German Emperor, residing at Euskirchen, in the Kingdom of Prussia, German Empire, have invented certain new and useful Improvements in Pencil-Sharpeners; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to pencil-sharpeners generally, and more particularly to the means of attachment for the cutter-blade.

In the pencil-sharpeners hitherto known the cutter-blade has usually been attached to the housing or pencil-guide by means of two screws, which had to be removed when the blade required sharpening or when the blade had to be replaced by a new one on account of wear or breakage. Furthermore, the holes which have to be made in the blade weaken the same unduly, so that it is liable to break at these points while being tempered.

The object of the present invention is to provide an attachment for the cutter-blade by means of which the same will be retained elastically in its position in the housing or pencil-guide, and also be easily removable from the same when it requires sharpening or if it is to be replaced by a new one.

In order to make the present invention more easily intelligible, reference is had to the accompanying drawings, in which similar letters denote similar parts throughout the several views.

Figure 1 is a front elevation of the pencil-sharpener; Fig. 2, an elevation taken at an angle of ninety degrees to that of Fig. 1; Fig. 3, a plan view; Fig. 4, a section on the line $x x$ of Fig. 1, and Fig. 5 a cross-section through the cutter-blade.

A is the housing or pencil-guide of the ordinary construction, which is cut out, as shown at Fig. 3, for the reception of the cutter-blade and its attachment.

The cutter-blade, as shown in section at B in Fig. 5, is advantageously provided with two edges $b' b'$, and has a longitudinal groove

b'' arranged at the back, while the opposite broadest surface b is flat. The knife or cutter blade B is laid with its surface b flat against the surface a of the housing A, and it is retained in position against this surface by a bow c , having its shanks $c' c''$ bent round at about right angles and driven into the surface a' of the housing which is adjacent to the surface a , as clearly shown at Fig. 3. The cross-bar of the bow which unites the two shanks lies in the groove at the back of the cutter-blade and holds this securely in position in the housing. One advantage of this construction is that the blade is not rigidly fixed in the housing and will have a slight play, which will enable it to yield—for instance, when cutting knotty wood—thus rendering the wear and tear of the cutter much less. Furthermore, the cutter-blade can be easily removed when it requires sharpening without the aid of any kind of tool, as it is only necessary to press it upward or downward, when it will slide out from under the bow.

It is obvious that instead of a cutter-blade with two edges, one with one edge only may be employed.

In the drawings, the groove b'' is shown as being semicircular in cross-section; but it is obvious that it may be rectangular or of any other suitable section, and that the section of the bow may be made to correspond to the section of the groove.

I claim as my invention—

1. In a pencil sharpener, the combination of a recessed housing, a cutter to lie flat against one surface of said recess and having a longitudinal groove at its back and a bow to lie in said groove and press the cutter against the housing and means to attach said bow to the housing substantially as described.

2. The combination of a recessed housing, a cutter to lie flat against one surface of said recess, a longitudinal groove at the back of said cutter, and a bow to lie in said groove said bow having its shanks fast in the adjacent side of said housing recess and operating to retain the cutter in position substantially as described.

3. The combination of a recessed housing

A, a cutter B having recess b'' at the back, and adapted to lie with its surface b against the recess surface a of the housing, a bow c to lie in said cutter groove and having shanks
5 $c' c''$ fast in the adjacent surface a' of said housing, all parts co-operating in the manner and for the purpose substantially as described and shown.

In witness whereof I have hereunto set my hand at Berlin this 28th day of February, 1895.

JOSEF DEUTSCHBEIN.

Witnesses:

J. LEMAN,
WM. HAUPT.