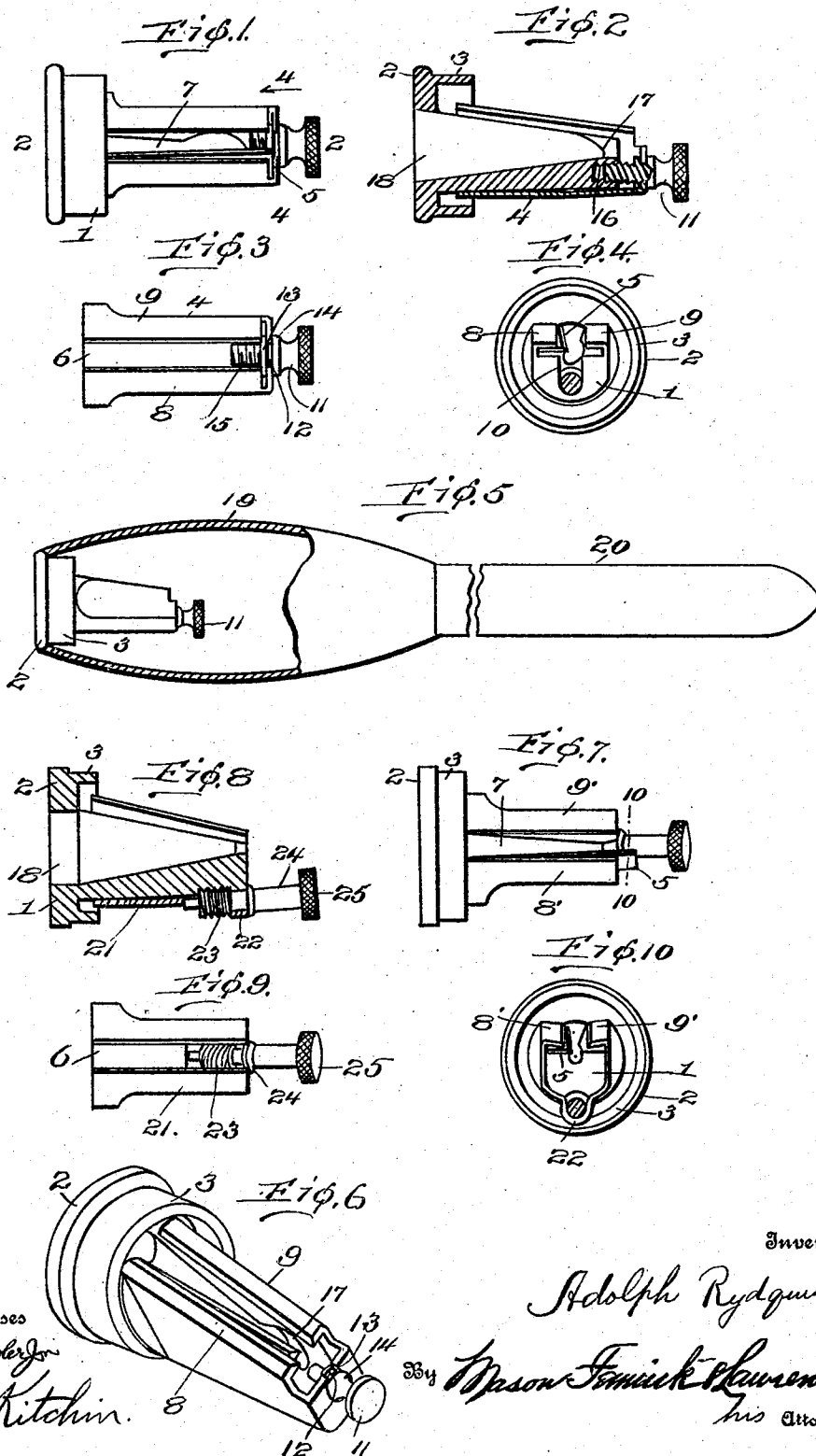


A. RYDQUIST.
 • PENCIL SHARPENER.
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PENCIL-SHARPENER.

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To all whom it may concern:

Be it known that I, ADOLPH RYDQUIST, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, 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.

This invention relates to improvements in pencil sharpeners, and has for an object the provision of a pencil sharpener arranged with means for readily inserting and removing the cutting knife.

Another object of the invention is the provision of a reciprocating shell arranged to clamp the cutting knife in position, and means for moving the shell for tightening or loosening the same in order to effect an adjustment of the knife.

With these and other objects in view the invention comprises certain novel constructions, combinations and arrangement of parts as will be hereinafter more fully described and claimed.

In the accompanying drawings: Figure 1 is a top plan view of a pencil sharpener embodying the features of the invention. Fig. 2 is a section through Fig. 1 on line 2—2. Fig. 3 is a top plan view of the clamping shell removed. Fig. 4 is a section through Fig. 1 on line 4—4. Fig. 5 is a view of a paper knife with a pencil sharpener attached thereto, parts being broken away to better disclose the construction. Fig. 6 is a perspective view of the sharpener shown in Fig. 1. Fig. 7 is a top plan view of a slightly modified form of sharpening knife. Fig. 8 is a section through Fig. 7 on line 8—8. Fig. 9 is a top plan view of clamping shell used in the construction of sharpener shown in Fig. 7, the same being shown removed. Fig. 10 is a section through Fig. 7 on line 10—10.

Referring to the drawing by numerals, 1 indicates a tube that acts as a holder for the pencil during the sharpening operation. Tube 1 is formed with a head 2 having a projecting sleeve 3 into which slides a clamping sleeve 4 when the same is being forced into position for clamping the cutter or blade 5. The clamping sleeve 4 is formed with a slot 6 that is slightly wider than slot 7 of tube 1. Slot 7 permits the

shavings to escape from the interior bore of the tube 1 during the cutting operation and as the same passes through slot 7 they also pass through slot 6. As clearly shown in Fig. 4 the clamping sleeve 4 is provided with a pair of clamping members 8 and 9 that are adapted to engage flattened beveled portions formed on tube 1. The bottom of tube 1 is preferably semi-circular and extends substantially parallel with sleeve 3, but the upper side of tube 1 into which is formed slot 7 is flattened and beveled at any desired incline, one of the flattened sides accommodating the knife or cutting member 5. By this construction and arrangement whenever blade 5 has been placed against one of the flattened portions of tube 1 and clamping sleeve 4 forced over tube 1 toward cap 2, the blade will be clamped tightly in position. In order to provide means for forcing the clamping sleeve 4 in position, one end thereof is turned over so as to partially close the end of the sleeve.

A slot 10 is formed in the turned over end portion into which is fitted a screw member 11 that is provided with a reduced portion 12 and enlarged portions 13 and 14, the reduced portion 12 fitting into notch or opening 10 and enlarged portions 13 and 14 being positioned on opposite sides thereof so as to prevent any reciprocatory movement of screw member 11. The inner end of the screw member 11 is threaded as at 15 and is adapted to enter a threaded opening 16 upon proper movement thereof. When it is desired to adjust the blade 5 or place a new blade therein screw 11 is positioned so as to slide or move sleeve 4 away from head 2 until the knife is sufficiently loose to be removed or until screw 11 has entirely left the threaded opening 12 when the entire sleeve may be removed as well as blade 5. A new blade may be then placed in position or the old one adjusted and the sleeve 4 again placed in position and screw member 11 rotated until the same has entered into the threaded opening 16 as far as the clamping member 4 will permit. The clamping member by its inner movement engages blade 5 and presses the same against tube 1 and as the same clamps the blade in position it will resist the action of screw 11, the beveled construction of the tube 1 and sleeve 4 causing the same to bind when the screw member 11 forces the clamping sleeve in position.

During the operation of sharpening a pen-

cil the shavings are adapted to pass out through slots 6 and 7 and in order to more fully accommodate the shavings and lead the slot 7 is augmented by a cut away portion 17. A bore 18 of tube 1 is beveled as is usual with pencil sharpeners and may be constructed with any desired bevel for providing any desired bevel on the pencil that is being sharpened. The adjustment of the blade 5 regulates also to a certain extent the bevel of the point placed on the pencil as the same may be regulated for cutting its entire length or for only a part of its length so as to give a long or short point.

The sharpener is provided with an end head 2 and a sleeve 3 which make a good hand-hold and also provide means for engaging a socket into which the sharpener may be placed, as for instance in the handle 19 of a paper knife 20 as clearly shown in Fig. 5. The sharpener may be placed in the handle of a paper knife as indicated or in the end of a hollow tube or receptacle of any kind and when so arranged will deposit the shavings in said receptacle or handle as the case may be and by this means dispense with the necessity of causing the shavings and parts of the lead from the pencil being sharpened to come in contact with the operator's hands.

In Figs. 8 to 10 inclusive I have disclosed a slightly modified form of sharpener which embodies the same principles as shown in the preferred construction but having slight changes in detail. Referring more particularly to these figures the same reference numerals will be used except where the structure is different, 21 indicates a clamping sleeve for holding in place blade 5. Clamping member 21 is formed of clamping portions 8' and 9' that engage flattened beveled parts of tube 1 in a similar manner to the way the portions 8 and 9 of the preferred construction engage tube 1. The end of clamping sleeve 21 is not bent over as in the preferred construction but has a portion thereof bent downward at 22 against which enlargements 23 and 24 impinge for preventing any movement of screw member 25. Enlargement portion 23 is threaded for engaging corresponding threads formed in tube 1. By this construction and arrange-

ment whenever screw member 25 is rotated the same will move clamping sleeve 21 one way or the other for clamping the same in position or for loosening the clamp from holding the cutter 5. The clamping sleeve 21 is formed with a slot 6 and tube 1 is formed with a slot 7 in a similar manner to the preferred construction and will therefore need no further description. In this modification the idea to be presented more particularly is the construction of the screw member 25 and how the same engages pressed out portion 22 for forcing back and forth the clamping sleeve 21.

What I claim is:

1. In a pencil sharpener a pencil receiving tube, a reciprocating clamping member substantially surrounding said tube, a cutting member held in position by said clamping member, and means for adjusting the position of said clamping member.

2. In a pencil sharpener a pencil receiving tube, a cutting member, a clamping sleeve substantially surrounding said tube and engaging said cutting member, an operating screw formed with a flange for regulating the tension of said clamping member against said cutting member, an upstanding flange projecting from said clamping tube and engaging said regulating screw and coacting with the flange on said screw whereby when said screw is operated motion will be communicated to said clamping sleeve.

3. In a pencil sharpener a pencil receiving tube formed with a bevel on one side, a cutting member positioned on said bevel, a clamping sleeve formed with a beveled side coacting with the beveled side of said tube, a screw receiving member projecting from the end of said sleeve, a screw engaging said screw receiving member, and means mounted on said tube for receiving said screw whereby when said screw is rotated the clamping action of said sleeve against said cutter will be varied.

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

ADOLPH RYDQUIST.

Witnesses:

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