

(No Model.)

J. R. FOSTER.
PENCIL SHARPENER.

No. 492,669.

Patented Feb. 28, 1893.

FIG. 1.

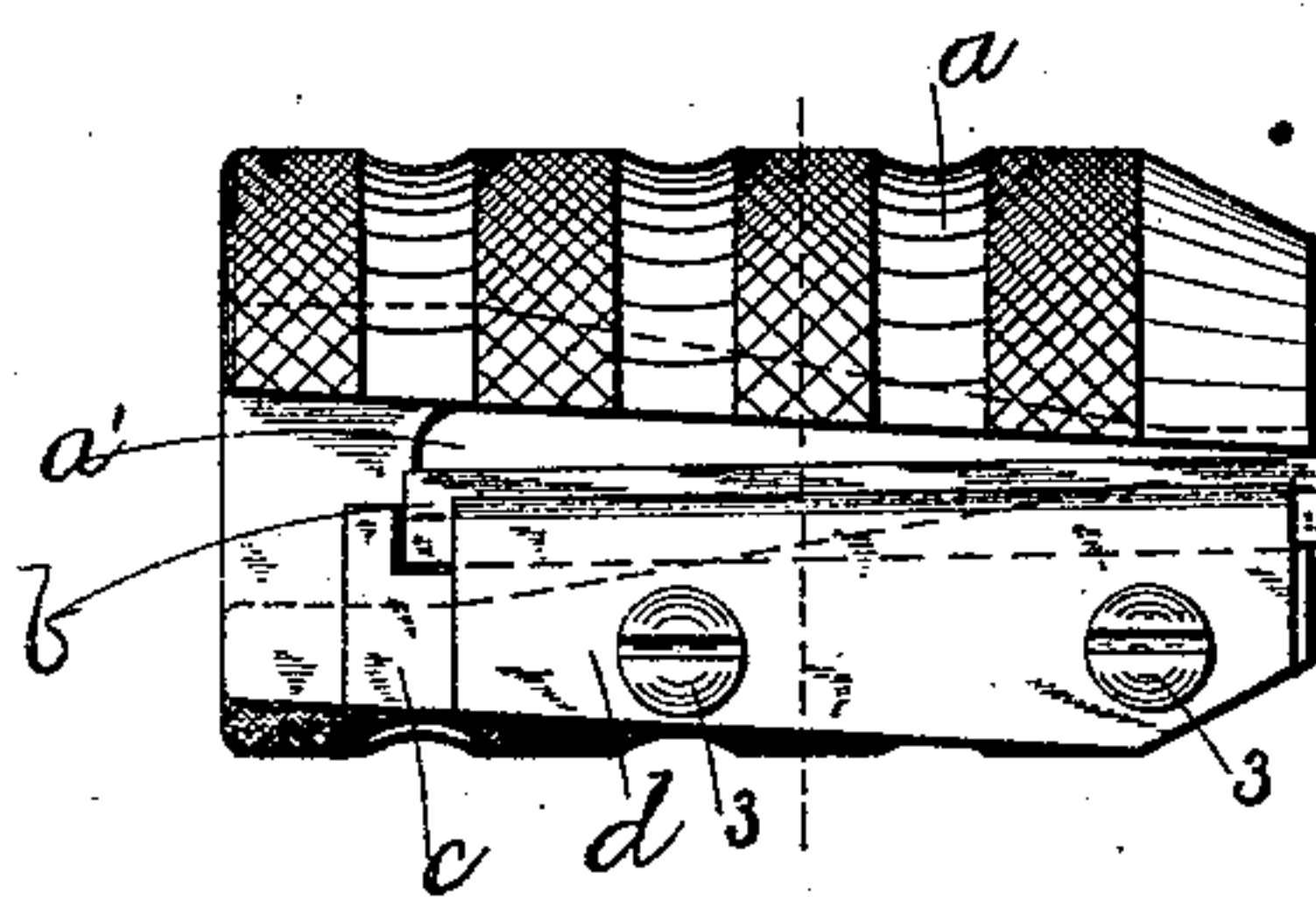


FIG. 2.

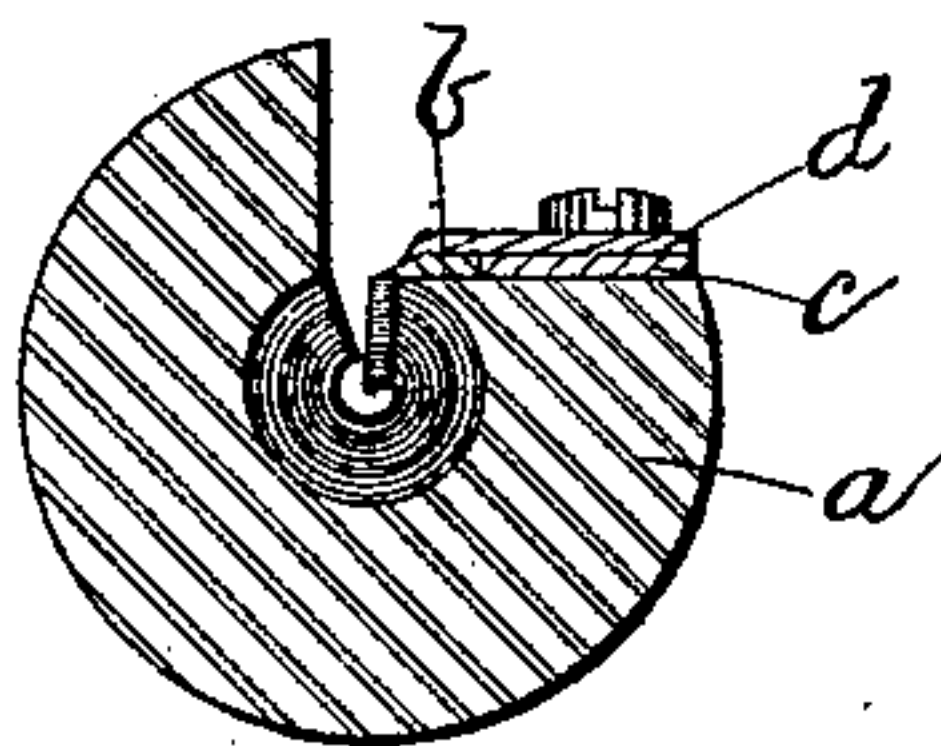
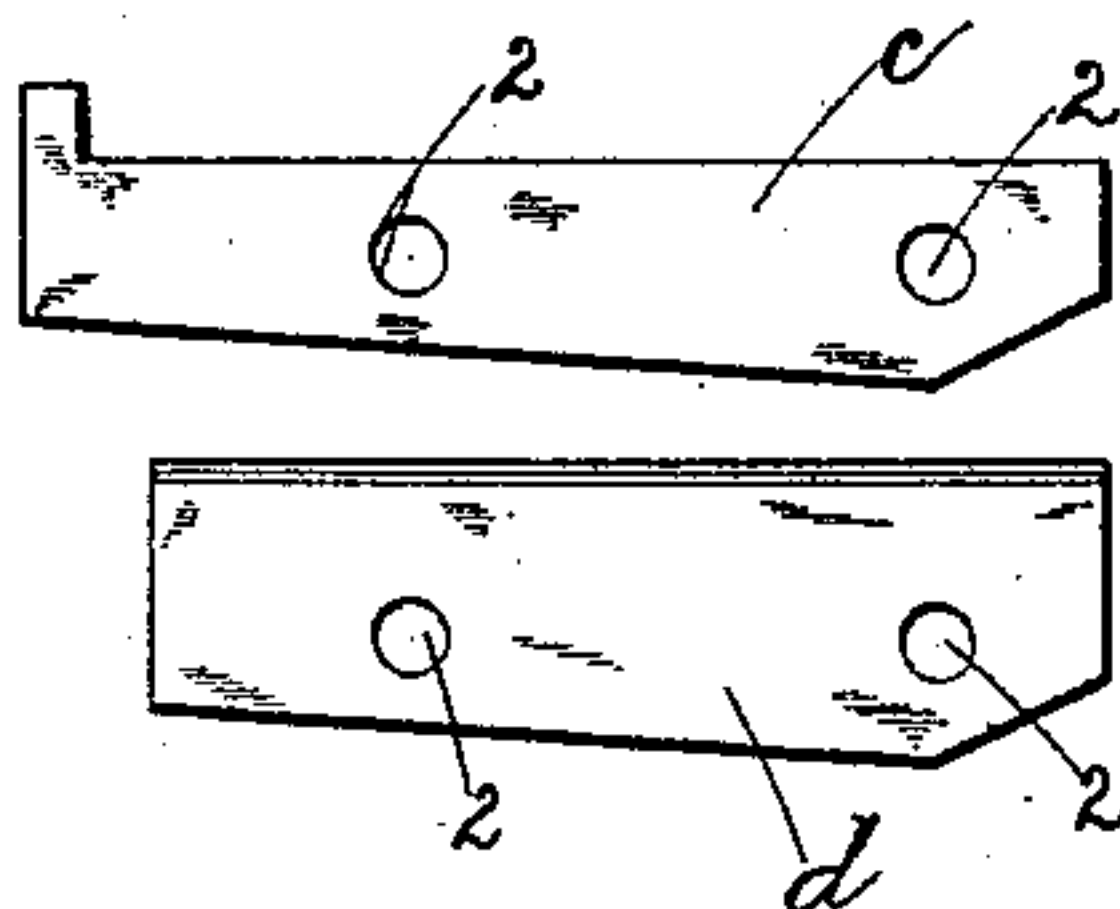


FIG. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

JONAS R. FOSTER, OF STONEHAM, ASSIGNOR TO E. IRVING SMITH, OF
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PENCIL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 492,669, dated February 28, 1893.

Application filed June 20, 1892. Serial No. 437,349. (No model.)

To all whom it may concern:

Be it known that I, JONAS R. FOSTER, of Stoneham, county of Middlesex, State of Massachusetts, have invented an Improvement in Pencil-Sharpeners, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

This invention relates to pencil sharpeners, and has for its object to provide a self adjusting clamp for the knife, whereby new knives may be readily substituted for those that have become worn and dull.

In accordance with this invention the knife or blade is held by a clamp in the usual position so that its cutting edge enters the opening which communicates with the pencil receiving socket, and said clamp is so made as to furnish a guide for the blade, as well as to hold said blade firmly in its correct position, so that an inexperienced person may place a new knife in the guide made to receive it, and then by simply turning the screws or other fastenings provided for the clamp, the said blade will be securely held in its proper position, thereby avoiding the necessity of compelling the person applying a new knife to adjust the same, which has proved to be a very difficult and tedious operation, unless proper tools especially made for the purpose are used.

Figure 1, shows in side elevation a pencil sharpener embodying this invention. Fig. 2, a cross section of the pencil sharpener shown in Fig. 1, taken on the dotted line $x-x$. Fig. 3, details of the separate parts of my self adjusting knife clamp or holder.

The cylindrical metallic block or body a , having a tapering or conical pencil receiving socket, see dotted lines Fig. 1, is cut away at one side on a diagonal line from end to end of the block, and is provided at the bottom of said cut away portion with a tapering opening a' , which communicates with the pencil receiving socket. The knife or blade b , having a beveled cutting edge is placed in the cut away portion or recess formed in the block and so positioned that the cutting edge thereof just enters the said opening a' , so that the pencil placed therein may be sharpened by turning one with relation to the other.

The self adjusting clamp or holder for the knife, is herein represented as composed of two flat pieces of metal c , d , the former c , being cut away or recessed at one side so as to present a guide against which the back of the blade, and also the end of the blade may abut, and the latter d , which is superimposed on the former c , is made wide enough to overlap said guideway so as to bear upon the top of the blade which may be placed therein. That edge of the plate d , which bears upon the blade is slightly turned down so as to lap onto the beveled portion of the blade, tending to draw said blade into its guideway, and against the abutting walls thereof, as said plate d , is secured in position.

The plates c , d , each have two or more holes as 2, through them, which register with each other, and are adapted to receive screws 3, which enter the block or body a . The shanks of the screws 2, are of suitable size to fit said holes, or substantially so, in order that there shall be no play of the parts, one upon the other.

To apply a new blade it is only necessary to loosen the screws 2, and the pressure upon the blade being thereby relieved it may be removed, and the new one is placed in the guideway made to receive it, when said screws will be tightened.

I have herein made the clamp in two parts for simplicity and cheapness in manufacture, but it is obvious that it may be made in a single piece if desired, the recess formed therein presenting straight sides or abutments against which the back and end of the knife may abut, and an overlapping portion for the top of the blade, but in such event the new blade will be placed in position and secured as before described.

As herein represented the plate c , is made a little thinner than the blade so that as the plate d , is placed thereon and screwed down the portion thereof which overlaps the blade will be brought to bear firmly thereon, but if said parts c , d , should be made in a single piece this same result can be obtained by forming the guide-way therein with suitable dimensions.

It is further obvious that instead of form-

ing the abutment on the plate *c*, against which the end of said blade abuts, such abutment may be formed on the body *a*, but such slight variation while coming within the spirit and scope of this invention would increase the cost of manufacture, so that the construction herein provided is I consider preferable.

I claim—

1. In a pencil sharpener, the body *a*, having a pencil receiving socket, and cut away exteriorly and having an opening at the bottom of said cut away portion communicating with said pencil receiving socket, combined with the blade *b*, and a self-adjusting clamp therefor, having a blade receiving guideway, and an overlapping portion for the top of the blade; substantially as described.

2. In a pencil sharpener, the body *a*, having a pencil receiving socket, and cut away exteriorly and having an opening at the bottom of said cut away portion communicating with said pencil receiving socket, combined with the blade *b*, and the self adjusting clamp therefor, having a blade receiving guideway against which the back and end of the blade abut, and the overlapping portion for the top of said blade, substantially as described.

3. In a pencil sharpener, the body *a*, having a pencil receiving socket, and cut away exteriorly and having an opening at the bottom of said cut away portion communicating with said pencil receiving socket, combined with a blade *b*, and a self adjusting clamp therefor having a blade receiving guideway against which the back and end of the blade abut and the overlapping portion for the top of said blade, the extreme edge of which overlaps the beveled portion of said blade, substantially as described.

4. In a pencil sharpener, the body *a*, having a pencil receiving socket, and cut away exteriorly and having an opening at the bottom

of said cut away portion communicating with said pencil receiving socket, combined with a blade *b*, a self adjusting clamp therefor, composed of the plates *c*, *d*; the former presenting a guide against which the back and end of the blade abut, and the latter overlapping the top of said blade to hold it in the guideway, substantially as described.

5. In a pencil sharpener, the body *a*, having a pencil receiving socket, and cut away exteriorly and having an opening at the bottom of said cut away portion communicating with said pencil receiving socket, combined with the blade *b*, and self-adjusting clamp therefor, composed of the plates *c*, *d*, the former presenting a guide against which the back and end of said blade abut, and the latter overlapping said blade and having a downwardly turned edge to draw said blade into its guide, substantially as described.

6. In a pencil sharpener, the body *a*, having a pencil receiving socket, and cut away exteriorly and having an opening at the bottom of said cut away portion communicating with said pencil receiving socket, combined with a blade, and a self-adjusting clamp therefor, composed of the plates *c*, *d*, the former having a guide against which the back and end of the blade abut, and made thinner than said blade, and the latter overlapping the top of said blade to hold it in the guideway, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JONAS R. FOSTER.

Witnesses:

BERNICE J. NOYES,
LUCY F. GRAVES.