

C. H. Reynolds,
Knife Sharpener.

N^o 78,010.

Patented May 19, 1868.

Fig. 3.

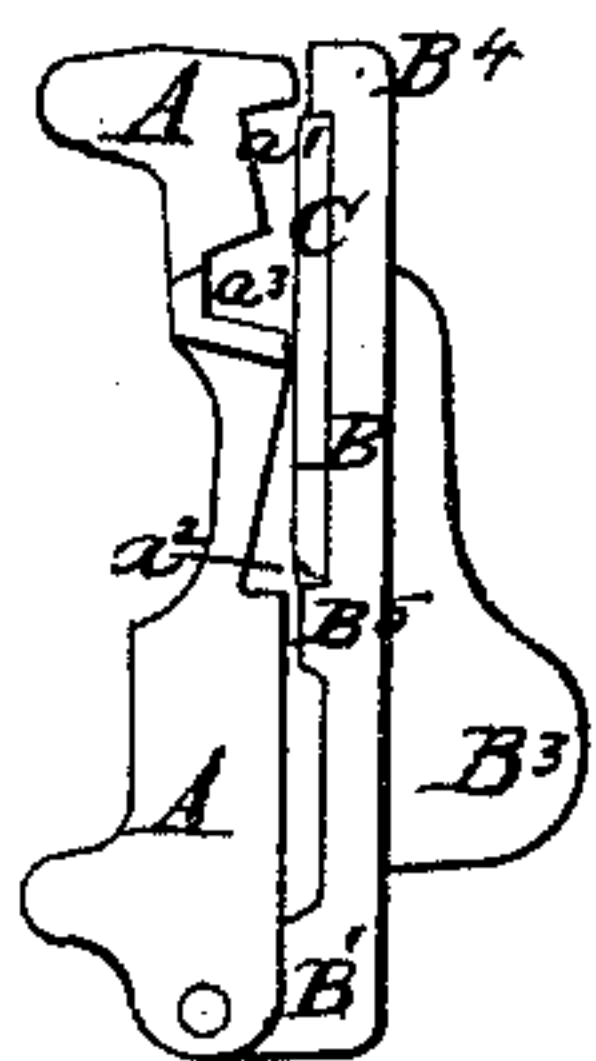


Fig. 1.

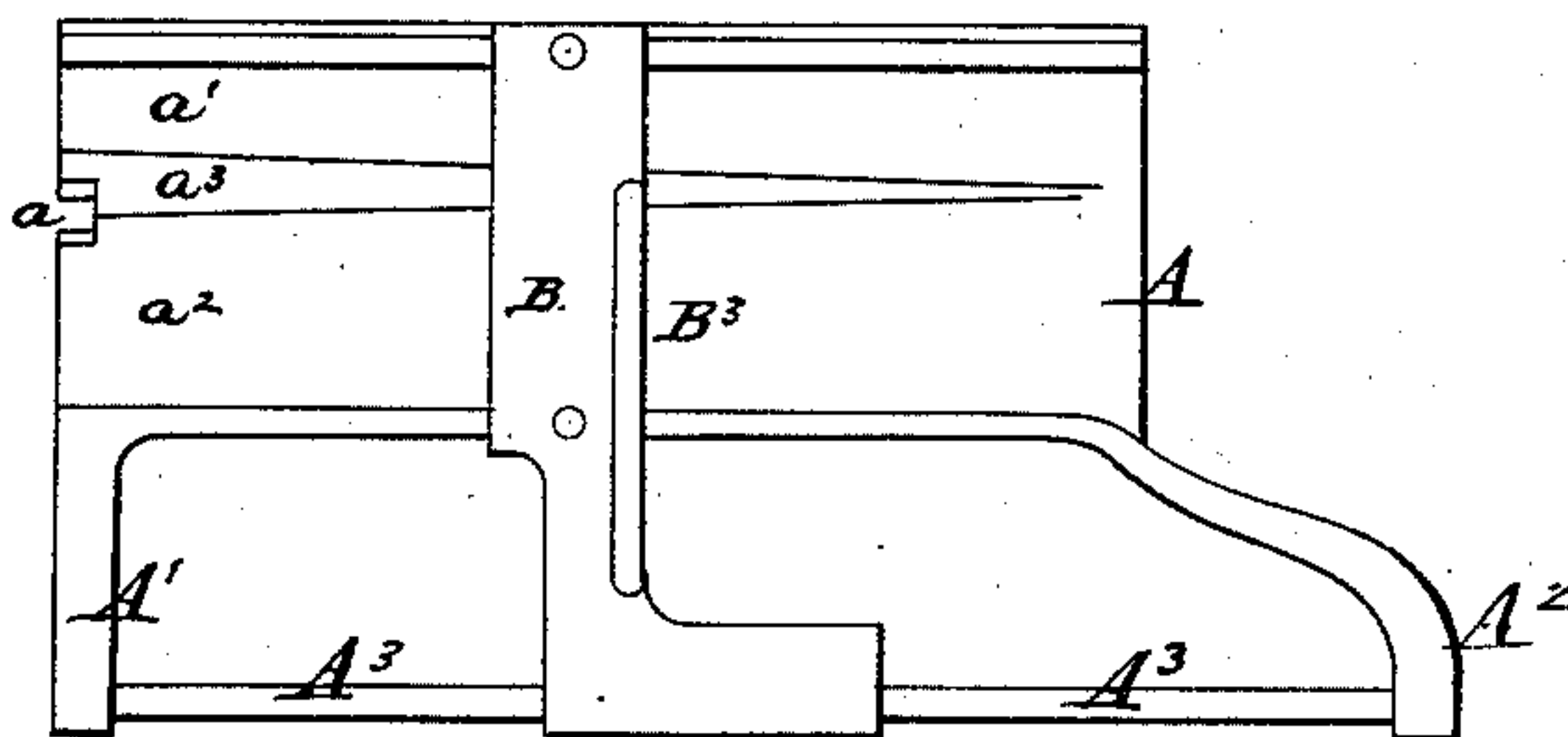


Fig. 4.

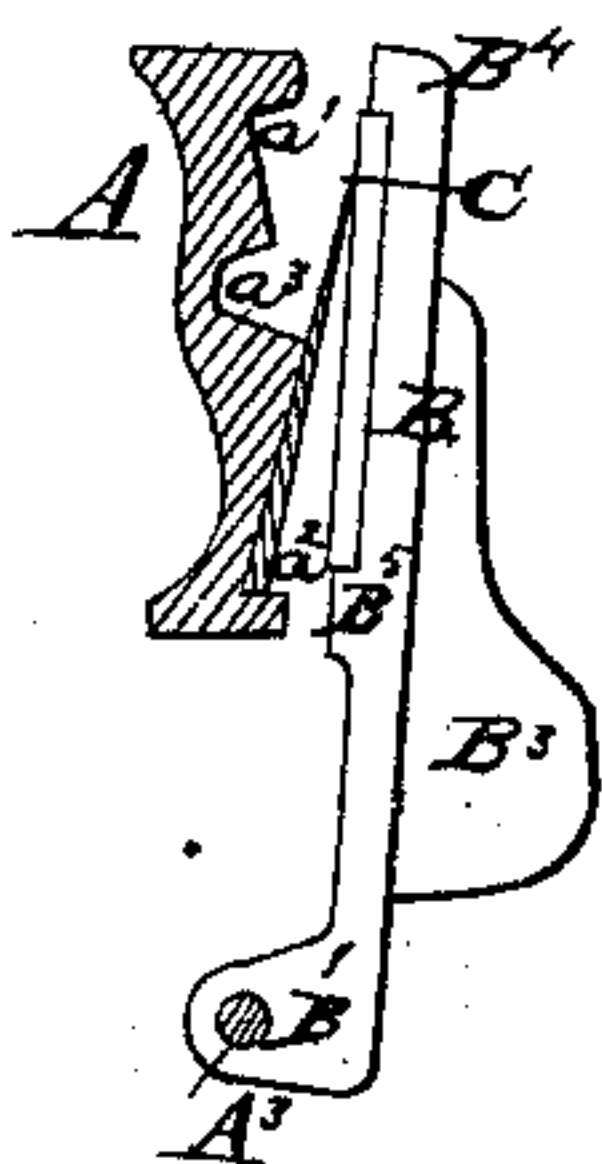
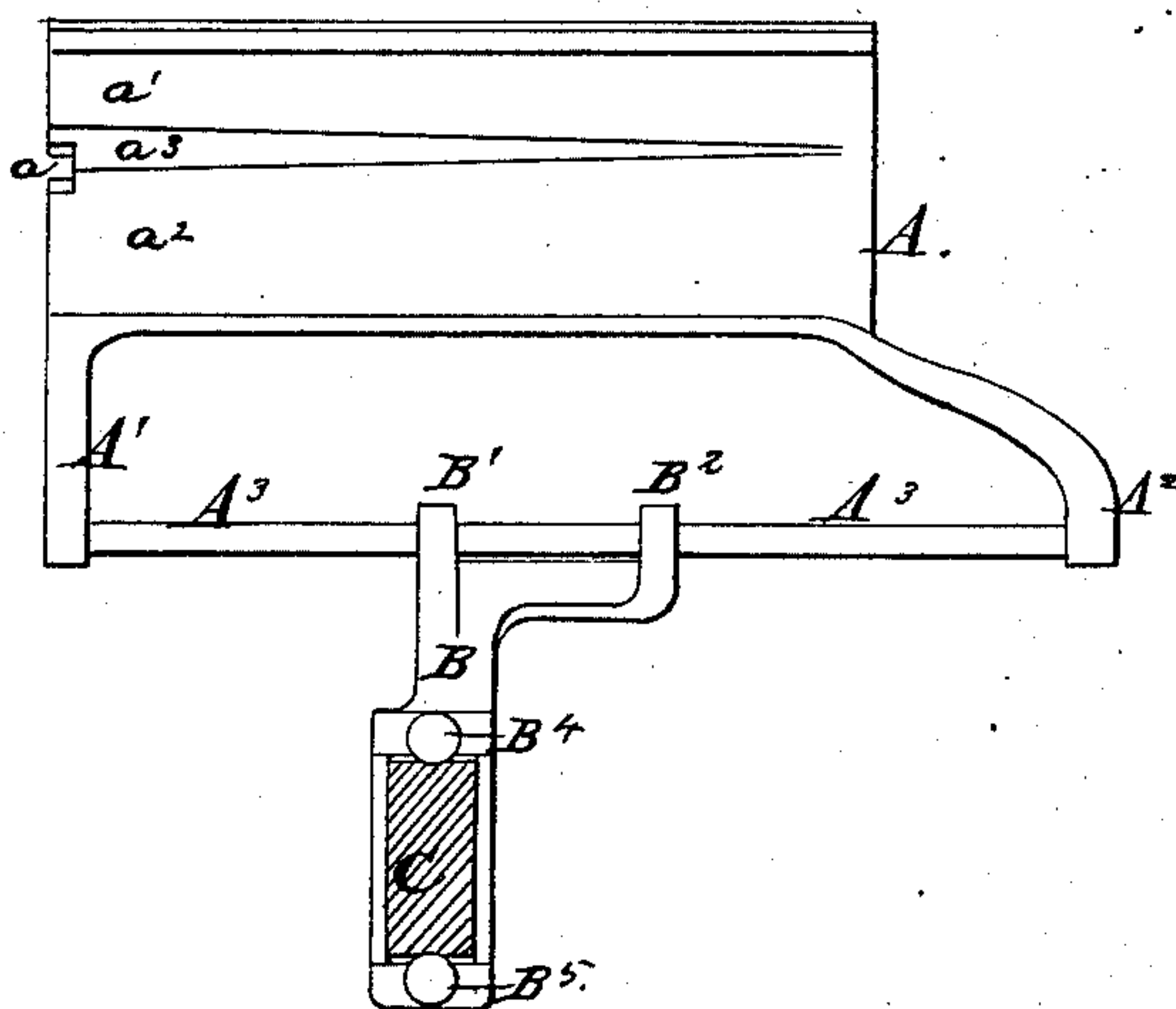


Fig. 2.



Witnesses:

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C. C. Livings

Inventor:

C. H. Reynolds.

United States Patent Office.

CHARLES H. REYNOLDS, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND ALBERT BRIDGES,
OF JERSEY CITY, NEW JERSEY, AND SAID REYNOLDS ASSIGNOR TO EDWIN RAY.

Letters Patent No. 78,010, dated May 19, 1868; antedated May 7, 1868.

IMPROVEMENT IN KNIFE-SHARPENER.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, CHARLES H. REYNOLDS, of the city and county of New York, and State of New York, have invented certain new and useful Improvements in Knife-Grinding Machines; and I do hereby declare that the following is a full and exact description thereof.

My machine operates by drawing a file or analogous surface longitudinally along the edge of the knife, on either side, as required, in the mode of operating technically known as "draw-filing," which is often applied to other work, and is exceedingly well adapted to produce a fine and smooth edge. My machine possesses marked advantages in convenience and efficiency over any before known to me.

I will first describe what I consider the best means of carrying out my invention, and will afterwards designate the points which I believe to be new therein. The accompanying drawings form a part of this specification.

Figure 1 is a plan view of the machine, when closed.

Figure 2 is a corresponding view, when open.

Figure 3 is an end view, when closed.

Figure 4 is a cross-section of the machine, when closed, with a knife-blade in position.

Similar letters of reference indicate like parts in all the figures.

Tints are employed merely to aid in distinguishing parts, and do not necessarily imply differences in material. The material of the whole may be iron and steel. I prefer malleable cast iron for the main parts.

A is the bed or principal portion, and $a^1 a^2 a^3$ are recesses provided therein. The recess a^1 receives the knife, with its edge presented towards the right. The recess a^2 receives the knife in a reversed position, and allows it to be presented with its edge to the left. This condition is fulfilled in fig. 4. The recess a^3 receives the blade of a pair of scissors. All these recesses are adapted to hold the article firmly in a fixed position, so as to allow the file to act uniformly at the proper angle.

The recess a , at the end of the bed, is so arranged relatively to the recess a^3 , that it holds the other blade of the scissors when either blade is being sharpened in the groove a^3 .

A^1 and A^2 are arms cast on the bed A, and supporting a smooth wire or cylindrical bar, A^3 . On this the top piece B is mounted, by means of the perforated lugs $B^1 B^2$, and is free both to turn and to slide endwise. This piece B has a handle, B^3 , and slight projections B^4 and B^5 , which are adapted to be riveted down on a short piece of well-made file, C, as represented.

The operation of my machine will be readily understood. The bed being laid on a table or bench, or being held on the knee of the operator, the knives or other articles to be sharpened are laid successively in the proper grooves in the bed, and the part B being folded over to close the machine in the condition shown in fig. 4, the handle B^3 is grasped, and the slide B is reciprocated briskly backward and forward, as far as is desired, on the guiding-bar A^3 . At each change, the piece B is lifted. The operation is very rapid and simple.

I use the term "file" in this specification to mean either a piece of an ordinary flat file, with cut teeth on both sides, or a corresponding piece of file or rasp cut only on one or both sides, or a corresponding piece of gritty stone or other abrading surface, which shall act in the manner of a file in removing a small portion of the metal presented to it.

Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows:

1. I claim a knife-grinding machine, having a guide, A^3 , and file-carrying piece B, arranged to serve relatively to each other, and to a bed for holding the blade in position, substantially in the manner and for the purposes specified.

2. I claim the within-described compound bed $a a^1 a^2 a^3$, adapted to hold the blades both of knives and scissors, and to allow them to be acted upon by the file C, or its equivalent, substantially in the manner and for the purpose herein set forth.

C. H. REYNOLDS.

Witnesses:

W. C. DEY,

C. C. LIVINGS.