

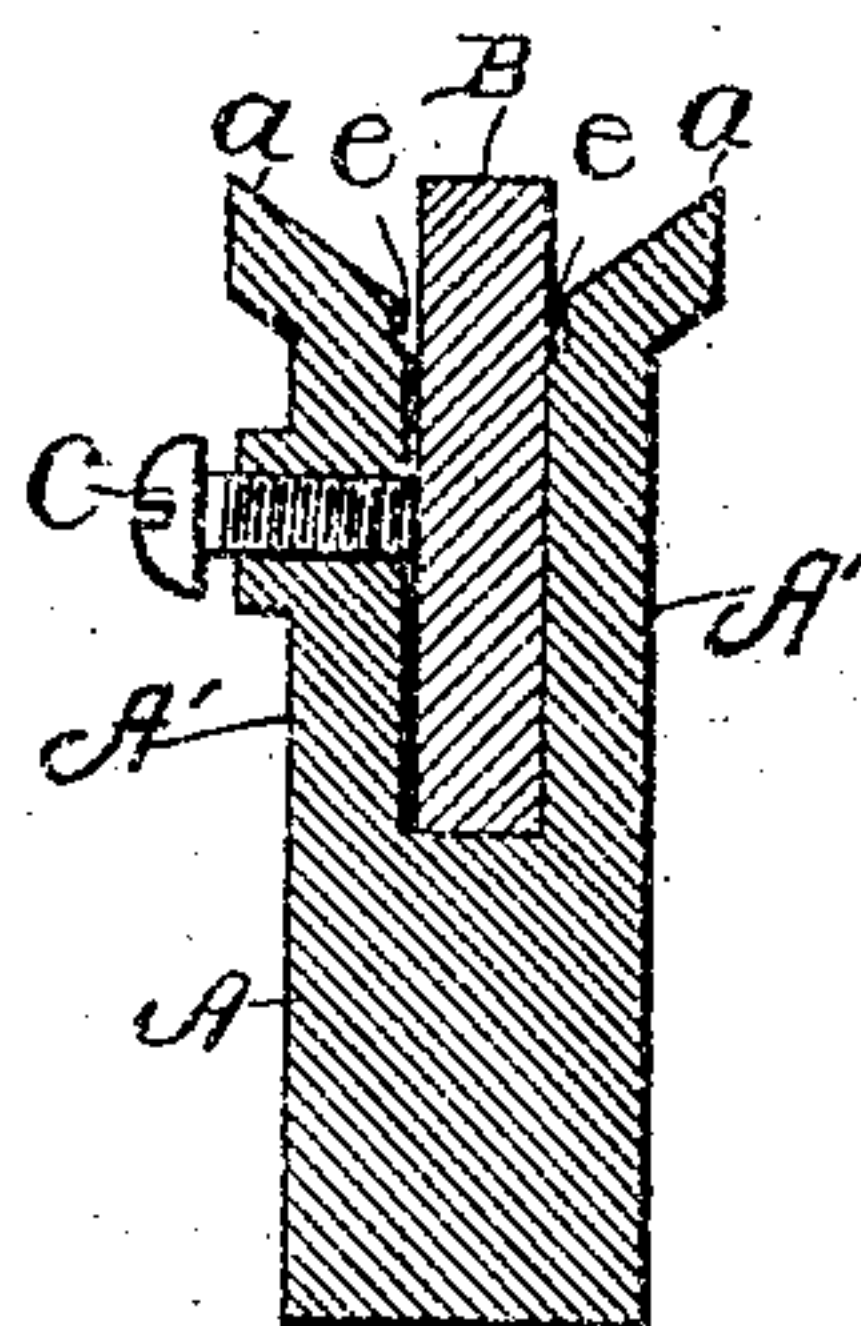
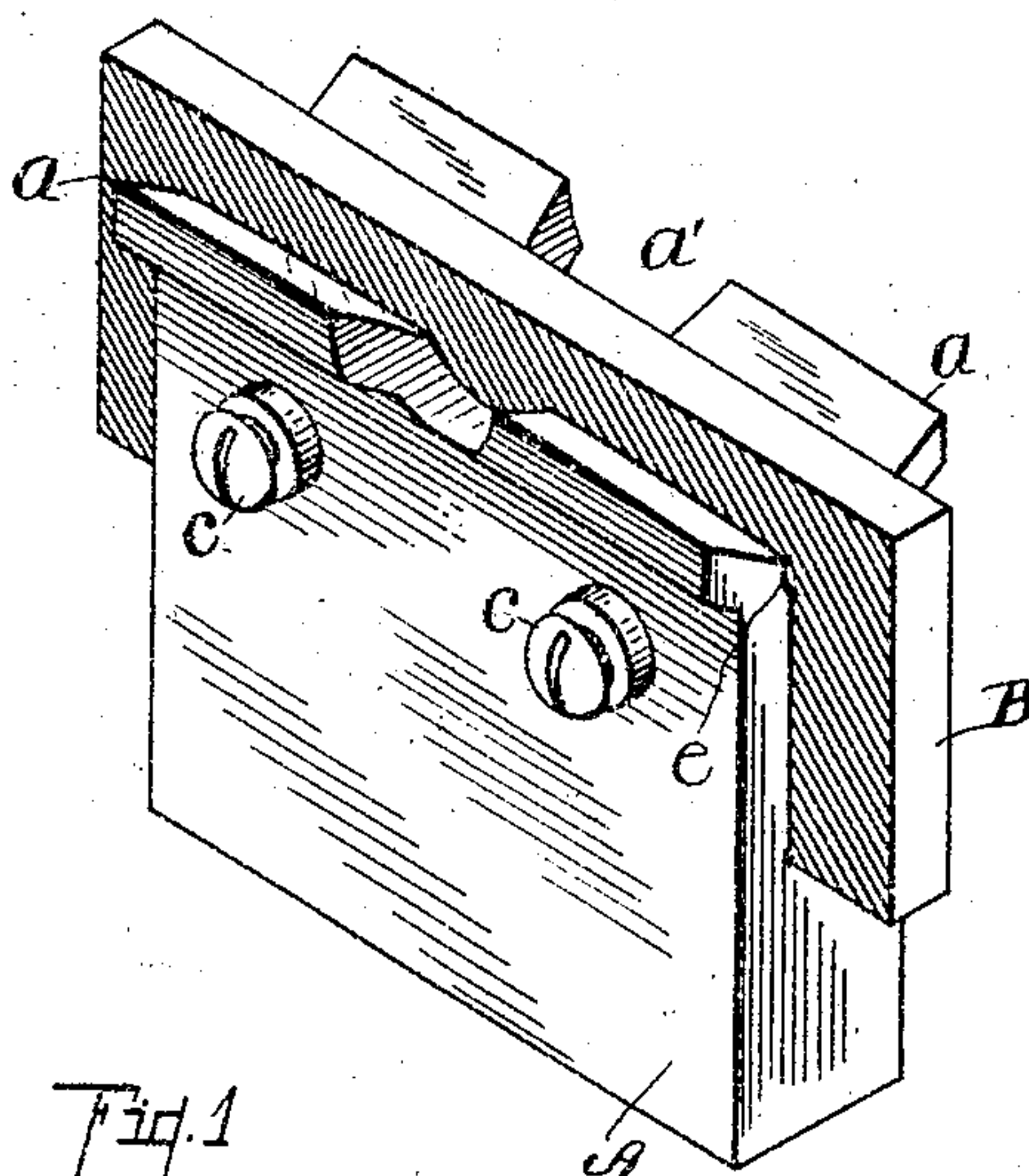
No. 771,066.

PATENTED SEPT. 27, 1904.

D. W. HATTEL.
TOOL SHARPENER.

APPLICATION FILED AUG. 26, 1903.

NO MODEL.



Witnesses:

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By *Frederick L. Chappell*
Att'y.

UNITED STATES PATENT OFFICE.

DAVID W. HATTEL, OF KALAMAZOO, MICHIGAN, ASSIGNOR TO THE
HATTEL COMPANY, OF KALAMAZOO, MICHIGAN, A CORPORATION.

TOOL-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 771,066, dated September 27, 1904.

Application filed August 26, 1903. Serial No. 170,830. (No model.)

To all whom it may concern:

Be it known that I, DAVID W. HATTEL, a citizen of the United States, residing at the city of Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented certain new and useful Improvements in Tool-Sharpeners, of which the following is a specification.

This invention relates to improvements in tool-sharpeners.

The objects of the invention are, first, to provide an improved tool-sharpener adapted for use in sharpening a variety of tools, which is simple in structure and easy and convenient to operate, and one which may be effectively used by an unskilled operator; second, to provide an improved tool-sharpening machine which is economical to produce and one which is durable and economical to use.

Further objects and objects relating to details of construction will definitely appear from the detailed description to follow.

I accomplish the objects of my invention by the devices and means described in the following specification.

The invention is clearly defined and pointed out in the claims.

A structure embodying the features of my invention is fully illustrated in the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of my improved tool-sharpener. Fig. 2 is a detail cross-sectional view taken on line 2 2 of Fig. 1.

In the drawings similar letters of reference refer to similar parts throughout both views.

Referring to the lettered parts of the drawings, the body portion is provided with a pair of projecting arms A', which terminate in angularly-arranged tool-rests or guiding-flanges a. The flanges a are curved longitudinally. At the base of the tool-rests or guiding-flanges are grooves e. Notches a' are formed through the flanges and the grooves e. Arranged between the arms A' is a file B or other suitable abrasive material, such as a whetstone or oilstone. The file or piece of abrasive material is adjustably secured in position by a set-screw c through one of the arms A'. Thus secured the piece of abrasive ma-

terial may be adjusted so that practically its entire surface may be used. Different kinds of abrasive material can be readily used, and in sharpening tools which require considerable grinding a file may be used in the first instance, and the file can then be readily removed and a piece of whetstone or other suitable material inserted.

I have illustrated the set-screws adapted to be manipulated by a screw-driver. It is evident that thumb-screws might be used, if desired.

The faces a are curved longitudinally, so that a slight rocking motion may be given to the sharpener, if desired. The curving of the tool-rest faces also reduces friction, and the device readily passes over any roughness of the tool. The sharpener is, however, satisfactory without the flanges being curved. The grooves e are arranged so that the sharpener may be conveniently used on tools requiring a knife-edge, such as knives. The notches a' serve as an escape for the filings and also reduce the operating friction.

It is evident that my improved sharpener is adapted for use on a great variety of tools. The body or block A serving as a handle, the same may be manipulated upon the tool, or it may be used as a support and the tool manipulated thereon.

My tool-sharpening device is satisfactory for use in sharpening tools requiring beveled edges, such as shears or lawn-movers and the like, and it is also adapted for use on knives or tools requiring a knife-edge. A great variety of other uses are apparent.

I have illustrated and described my improved tool-sharpening machine in detail in the form preferred by me on account of its simplicity. It is evident that it may be considerably varied without departing from my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a sharpening device, the combination of a body portion divided into opposing sides terminating in angularly-arranged rests or guiding-flanges, the said flanges having lon-

gitudinally-curved faces; grooves in said sides at the base of said flanges; notches through said flanges; a piece of file arranged between the sides of the said holder, and extending
5 longitudinally between the same; set-screws through the sides for clamping the file adjustably in position, coacting for the purpose specified.

2. In a sharpening device, the combination
10 of a body portion divided into opposing sides terminating in angularly-arranged rests or guiding-flanges, the said flanges having longitudinally-curved faces; notches through said flanges; a piece of file arranged between the
15 sides of the said holder, and extending longitudinally between the same; set - screws through the sides for clamping the file adjustably in position, coacting for the purpose specified.

20 3. In a sharpening device, the combination of a body portion divided into opposing sides terminating in angularly-arranged rests or guiding-flanges, the said flanges having longitudinally-curved faces; grooves in said sides
25 at the base of said flanges; a piece of file arranged between the sides of the said holder, and extending longitudinally between the same; set-screws through the sides for clamping the

file adjustably in position, coacting for the purpose specified. 30

4. In a sharpening device, the combination of a body portion divided into opposing sides terminating in angularly-arranged rests or guiding-flanges; grooves in said sides at the base of said flanges; notches through said
35 flanges; a piece of file arranged between the sides of the said holder, and extending longitudinally between the same; set - screws through the sides for clamping the file adjustably in position, coacting for the purpose
40 specified.

5. In a sharpening device, the combination of a body portion divided into opposing sides terminating in angularly-arranged rests or guiding-flanges; notches through said flanges;
45 a piece of file arranged between the sides of the said holder, and extending longitudinally between the same; means of adjusting said file, coacting for the purpose specified.

In witness whereof I have hereunto set my
50 hand and seal in the presence of two witnesses.

DAVID W. HATTEL. [L. s.]

Witnesses:

A. IRENE ADAMS,
OTIS A. EARL.