

No. 638,750.

Patented Dec. 12, 1899.

H. A. PALMER.
KNIFE OR SHEARS SHARPENER.

(Application filed May 1, 1899.)

(No Model.)

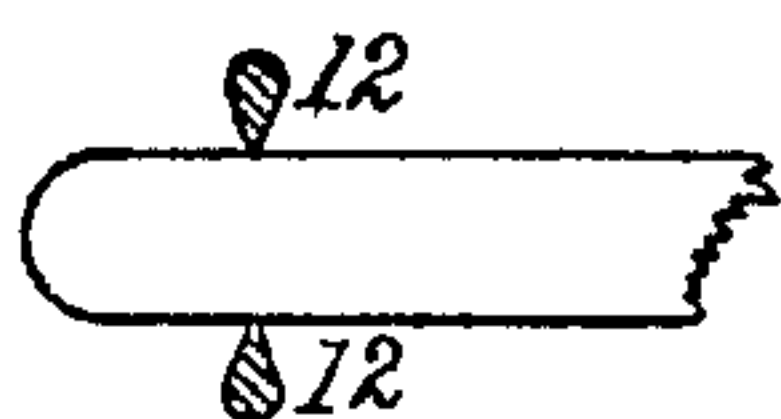


Fig. 3.

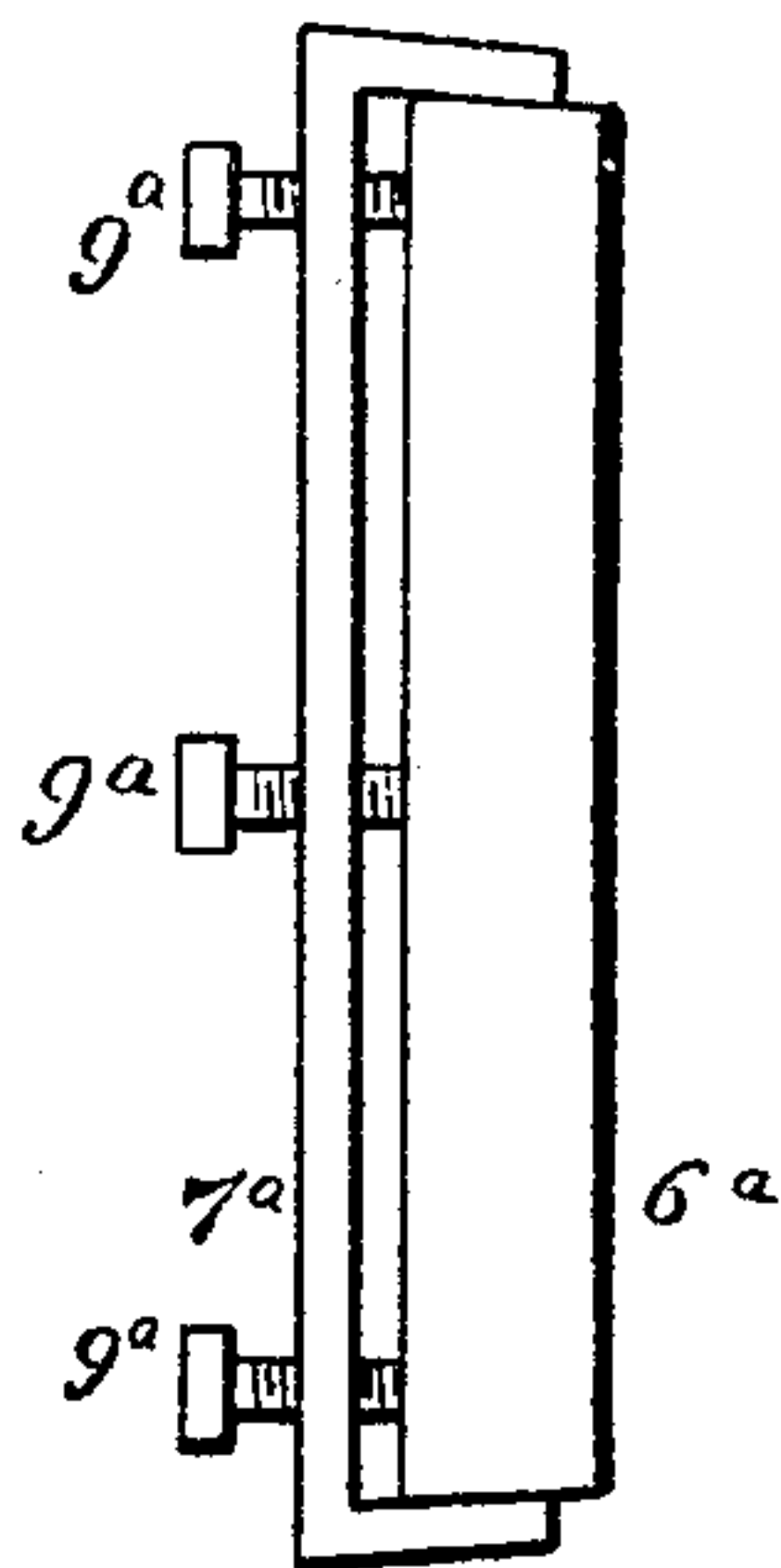


Fig. 4.

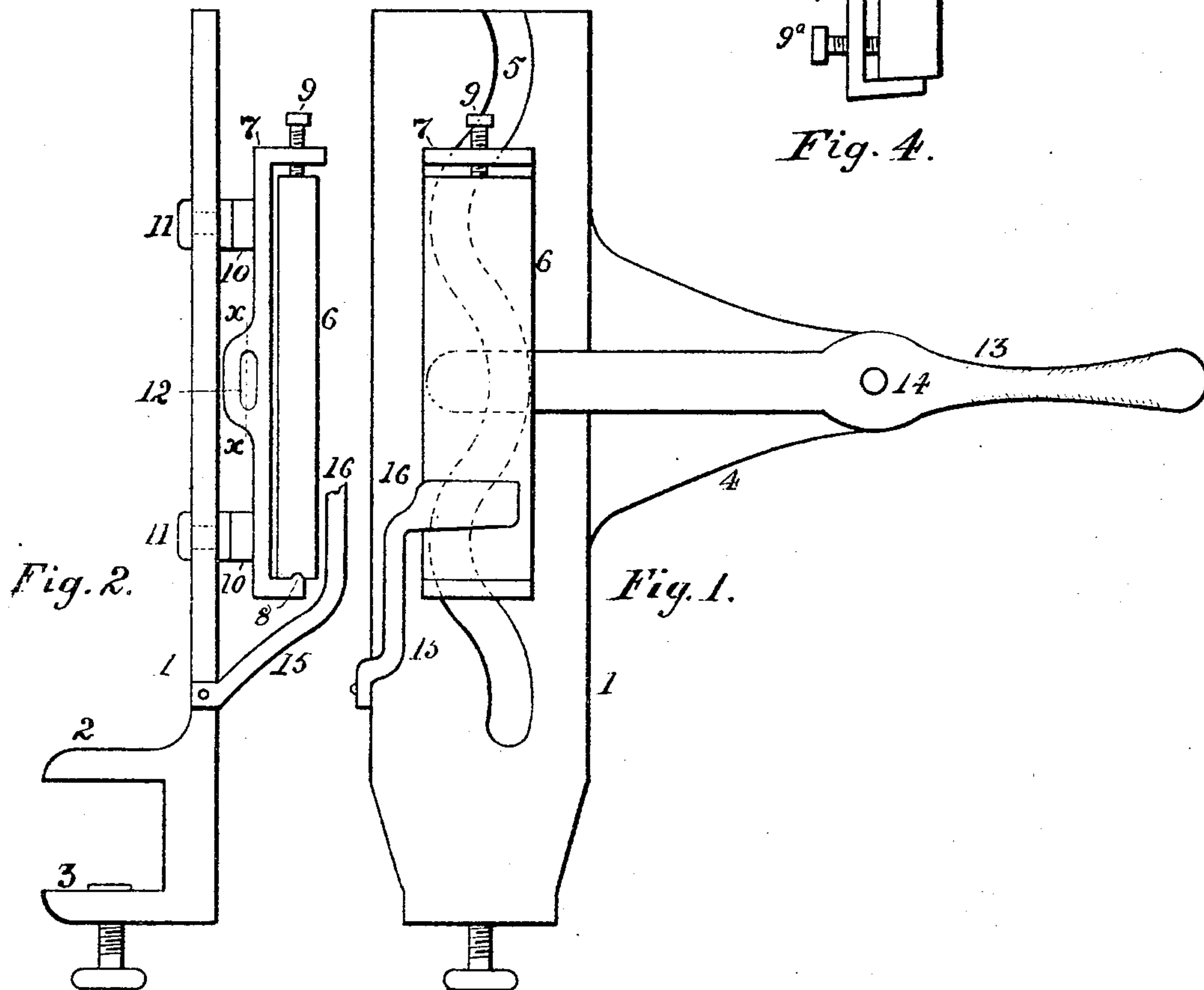


Fig. 2.

Fig. 1.

Witnesses:

Ray Lumer.
Fred. H. Buehler

Inventor:

Harry A. Palmer,
by Humphrey & Humphrey
Attys.

UNITED STATES PATENT OFFICE.

HARRY A. PALMER, OF AKRON, OHIO.

KNIFE OR SHEARS SHARPENER.

SPECIFICATION forming part of Letters Patent No. 638,750, dated December 12, 1899.

Application filed May 1, 1899. Serial No. 715,208. (No model.)

To all whom it may concern:

Be it known that I, HARRY A. PALMER, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented a certain new and useful Improvement in Knife and Shears Sharpeners, of which the following is a specification.

My invention has relation to improvements in devices, usually for domestic purposes, for grinding and sharpening table-knives, shears, and kindred articles; and it has for its object the production of a simple and compact utensil, readily secured to the edge of a table-top or a shelf and provided with a stone or other grinding-surface having a compound longitudinal and lateral movement and a support for the blade to be ground.

To the aforesaid object my invention consists in the peculiar and novel construction, arrangement, and combination of parts hereinafter described, and then specifically pointed out in the claims, reference being had to the accompanying drawings, forming a part of the specification.

In the accompanying drawings, in which similar reference-numerals indicate like parts in the different views, Figure 1 is a side elevation of my improved grinding-machine; Fig. 2, an end elevation looking to the left of Fig. 1; Fig. 3, a section of a part of the stone-holding clamp at the line X X of Fig. 2 and hereinafter described, and Fig. 4 a modification of the clamp for holding the stone.

Referring to the figures, 1 is a metallic plate having at one side, at the lower end, two flanges 2 3, through the lower of which runs a thumb-screw, thus forming a clamp to attach it to a table or shelf and from one edge an arm 4, to form a fulcrum for the actuating-lever. Extending from the top of the plate to the flange 2 is a sinuous channel 5.

The stone 6 is held in a metal clamp 7 by a stud 8, that enters a recess in the lower end of the stone, and a binding-screw 9, that passes against its upper end. On the back of the clamp near each end are studs 10, in which are pivotally mounted wrists 11, having reduced centers adapted to run in the

channel 5, as indicated by solid and dotted lines in Fig. 2, and between these studs is a loop 12, the upper and lower edges of which are sharp, as indicated in Fig. 3, which shows this part in vertical section on the line *x x*.

A lever 13 is pivoted to the arm 4 by a rivet 14, the outer end being rounded to form a handle and the inner end adapted to enter the loop 12, and by rocking the lever vertically it will be apparent that the stone 6 will not only have a reciprocating motion vertically, but also laterally, in conformity with the sinuous channel 5.

In the modification shown in Fig. 4 the clamp 7^a has its ends inclined inward, the end of the stone 6^a similarly inclined making a dovetail joint, and the stone is retained by a screw 9^a or, if thin, by two screws 9^a, near the ends, in which case the center screw will be omitted.

To retain the knife or other blade to be ground, an arm 15 is attached to the plate 1 and bent to bring its upper end in front of the stone, where it bears a head 16, which has a longitudinal groove along its upper face to rest the back edge of the blade in and is beveled to hold the shear-blade at a proper angle.

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

1. In a grinding-machine of the class named, the combination with a plate having a clamp to attach it to a table-top, and an arm extending from one edge, and a sinuous channel lengthwise of it, of a clamp having studs arranged to run in said channel, and means for retaining a lever, a stone mounted in said clamp and a lever pivoted on said arm and connected with the retaining device of said clamp, substantially as shown and described.

2. The combination in a grinding-machine with a plate having a sinuous channel; a clamp to secure said plate to a table-top, a clamp having studs to run in said channel, a stone mounted in said clamp, and a lever pivoted to an arm of said plate and connected with the stone-holding clamp, of an arm attached to said plate and extended in front of

said stone and having a beveled and channeled head, substantially as shown and described.

3. In a grinding-machine, the combination
5 of a plate having a sinuous channel, a stone-holding clamp having studs, adapted to run in said channel, devices for mounting a stone therein and means for communicating a recip-

rocating motion to said clamp along said channel, substantially as shown and described. 10

In testimony that I claim the above I hereunto set my hand.

HARRY A. PALMER.

In presence of—

IDA OSER,

C. P. HUMPHREY.