P. J. CALLAHAN.

KNIFE SHARPENER.

APPLICATION FILED JULY 10, 1914.

1,134,587.

Patented Apr. 6, 1915

2 SHEETS—SHEET 1.

Fig. 1.

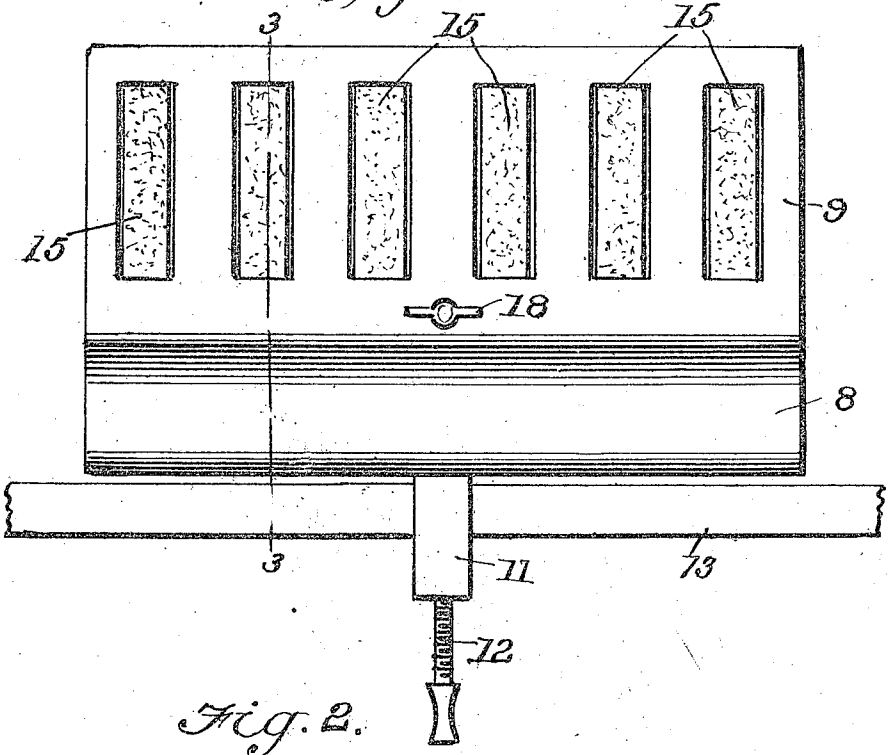
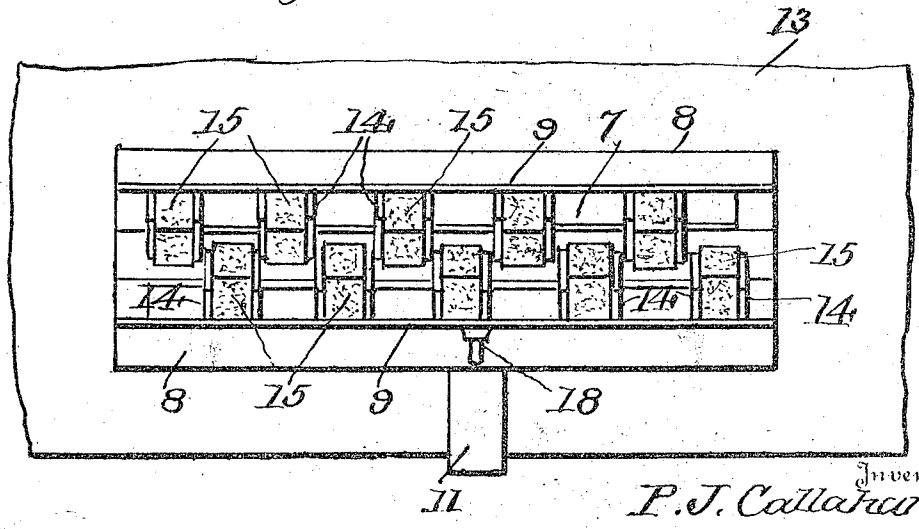


Fig. 2.



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Witnesses

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2 SHEETS—SHEET 2.

Fig. 3.

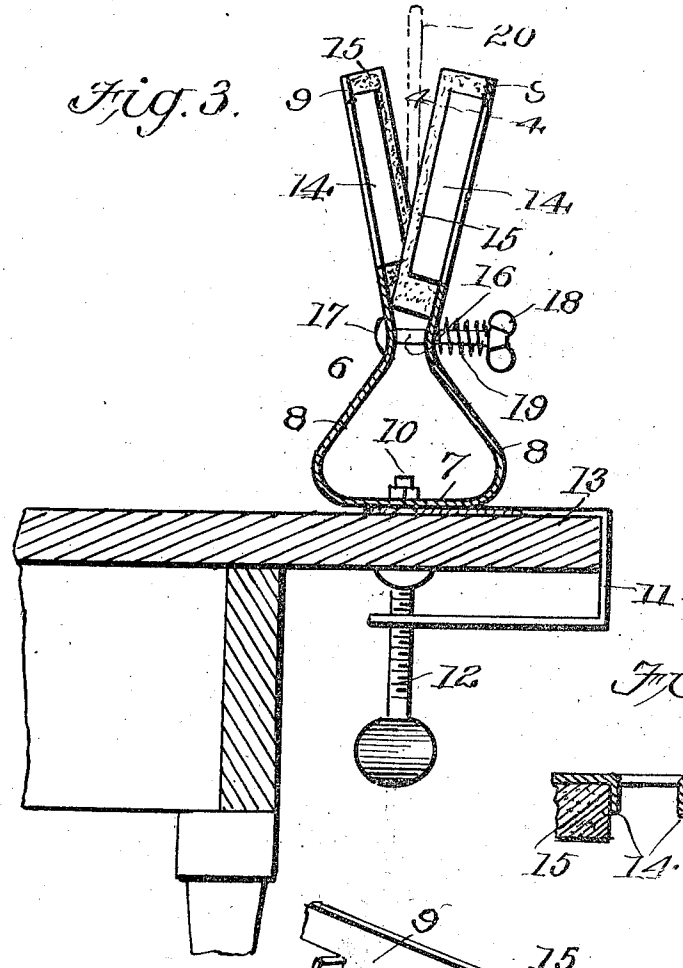


Fig. 4.

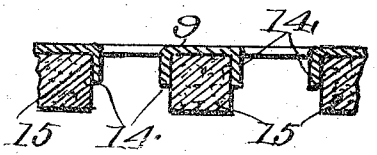
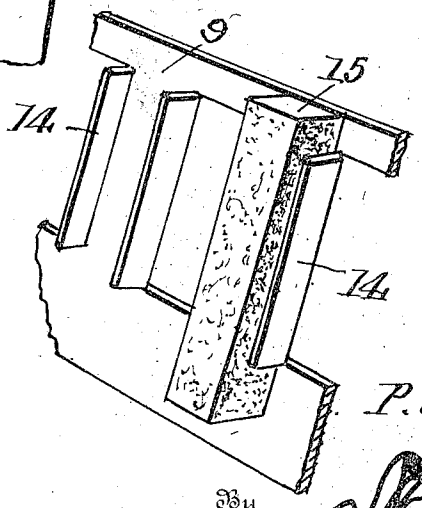


Fig. 5



Witnesses

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UNITED STATES PATENT OFFICE.

PATRICK JAMES CALLAHAN, OF SPOKANE, WASHINGTON.

KNIFE-SHARPENER.

1,134,587. Specification of Letters Patent. Patented Apr. 6, 1915.

Application filed July 10, 1914. Serial No. 850,207.

To all whom it may concern:

Be it known that I, PATRICK JAMES CALLAHAN, a citizen of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented certain new and useful Improvements in Knife-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.

An object of this invention is the provision of a knife sharpener of light, durable and inexpensive construction embodying a frame formed of resilient material and carrying the abrading blocks.

Another object is the provision of a frame of resilient material carrying a series of abrading blocks normally retained in engagement with the object to be sharpened by the tension of the spring frame.

With these and other objects in view, the invention consists in the novel construction, arrangement and formation of parts as will be hereinafter specifically described, claimed, and illustrated in the accompanying drawings, in which:

Figure 1 represents a side elevation of the sharpener. Fig. 2 represents a top view thereof. Fig. 3 represents a vertical sectional view taken on the line 3—3 of Fig. 1. Fig. 4 represents an enlarged detail sectional view of the sharpener, partly broken away. Fig. 5 represents a perspective view of the abrading block holders, partly broken away.

Referring to the drawings in detail, wherein similar reference numerals indicate corresponding parts throughout the several views, the numeral 6 designates generally the frame of the sharpener including a base portion 7, upwardly converging spring arms 8 and upwardly diverging holders 9. The frame 6 is preferably formed of resilient sheet material and the base portion 7 thereof is provided centrally with an aperture receiving a bolt or the like 10 removably securing the frame to a U shaped supporting bracket 11 provided with a suitable clamping screw 12, whereby the device may be conveniently attached to a table or the like 13. The upwardly diverging holders 9 are struck out at intervals to provide pairs of clamping tongues 14 removably and reliably securing the abrading blocks 15 on the holder. The arrangement of the tongues 14 on the two holders 9 is such that the blocks 15 carried by the respective holders are disposed in the staggered relation illustrated in Fig. 2.

The upper portions of the arms 8 are apertured to receive a bolt 16 carrying a head 17 at one end engaged against the outer face of one arm and carrying a winged nut 18 at the opposite end. A spring 19 is disposed between the winged nut and the adjacent arm 8 for increasing or decreasing, as desired, the tension of the holders 9.

In use, the blade 20 of the knife to be sharpened is positioned longitudinally between the series of blocks 15, as illustrated in Fig. 3. By bearing downwardly on the blade 20 the blocks of the several series are separated and brought more nearly into parallel relation, thus insuring, when the blade is reciprocated longitudinally, a sharp point having the faces at acute angles. By decreasing the pressure of the blade on the blocks the side faces of the blade are ground at a less acute angle, and thus practically any character of edge may be secured by proper pressure on the blade being sharpened.

What I claim is:

1. A sharpener including a spring frame, holders in the upper portion of said frame, upwardly diverging abrading blocks secured in said holders, and adjustable tensioning means for said holders.

2. A sharpener comprising a frame formed of resilient sheet metal including a base, upwardly converging arms and upwardly diverging holders, upwardly diverging rows of abrading blocks secured in said holders, a bolt positioned through said frame intermediate said holders and said upwardly converging arms, a nut on said bolt, and a spring interposed between said frame and said nut normally tending to move said holders together.

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

PATRICK JAMES CALLAHAN.

Witnesses:

FRANK J. GUSE,

M. G. WILSON.