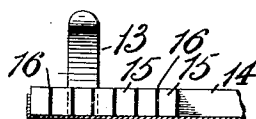
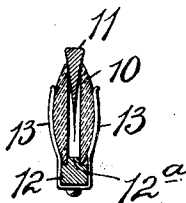
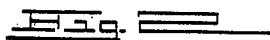
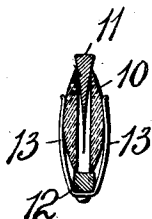
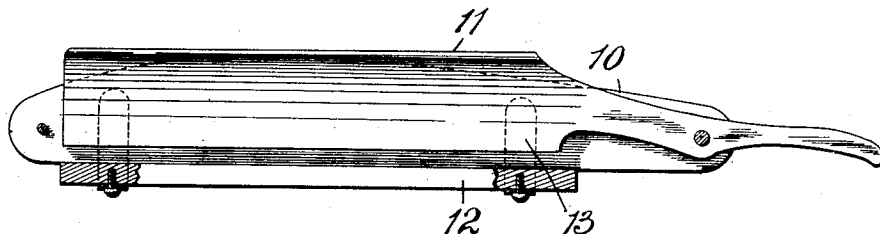


No. 744,726.

PATENTED NOV. 24, 1903.

T. DAVIS.
SHARPENER FOR EDGED TOOLS.
APPLICATION FILED SEPT. 24, 1902.

NO MODEL.



WITNESSES:

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THERON DAVIS, OF NEW YORK, N. Y.

SHARPENER FOR EDGED TOOLS.

SPECIFICATION forming part of Letters Patent No. 744,726, dated November 24, 1903.

Application filed September 24, 1902. Serial No. 124,619. (No model.)

To all whom it may concern:

Be it known that I, THERON DAVIS, of the city, county, and State of New York, have invented certain new and useful Improvements in Sharpeners for Edged Tools, of which the following is a full, clear, and exact description.

My invention relates to improvements in cutlery and other edged-tool sharpeners, and more particularly in a device for maintaining a sharp edge after it has once been produced.

In the accompanying drawings I have shown my device as applied to a razor, as it is particularly adapted to keeping razor edges in good working order; but obviously it can be applied to any edged tool. It is a well-known fact that when examined under a microscope the finest edge will appear as a succession of somewhat-ragged teeth. Now when these teeth are in proper alinement the edge is in condition to do good work, and if the infinitesimal teeth are laterally or otherwise displaced the result is what we call "dullness."

The object of my invention is to produce a simple device which can be applied to any razor or other edged tool and which when in position will by magnetic attraction cause the particles constituting the edge of the tool to turn into the proper alinement for the best cutting.

I have found that because of the tendency of magnets to draw to the poles that where a magnet is applied to a cutting edge that is held opposite the poles the tendency is to improve only parts of the edge; but by magnetizing an edged tool and then holding a bar of soft iron or other attractive matter opposite the edge the magnetic attraction is exerted all along the edge, and so a uniform sharpening is obtained.

With these ends in view my invention consists of certain features of construction and combinations of parts, which will be herein-after described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar figures of reference refer to similar parts throughout the several views.

Figure 1 is a sectional elevation of a razor provided with my improved sharpening means. Fig. 2 is a cross-section thereof. Fig. 3 is a cross-section similar to Fig. 2, but with

the bar in a slightly-modified form; and Fig. 4 is a detail sectional elevation of another modification of the device.

One of the principal uses of the invention is to maintain a razor edge in working order, and therefore I have illustrated the invention as applied to a razor, which shows the customary handle 10 and the usual blade 11. The blade is magnetized so as to make a permanent magnet of it, and I maintain on the handle opposite and in close proximity to the edge a bar 12, which will be attracted by the magnetic blade and which is preferably of soft iron. This bar can be held in position in many ways. Perhaps the simplest and best method is to provide it with ordinary spring-clips 13, which are fastened to the bar 12 and which are adapted to be pushed on the handle 10 and clamp the bar thereon. Thus it will be seen the device can be readily pushed on or off the razor-handle. By making the bar 12 as shown in Fig. 3—that is, with a rib or shoulder 12^a projecting up into the handle—the metal may be brought near the blade and a stronger magnetic effect maintained.

Still another modification is shown in Fig. 4, in which a trough or case is provided with clips 13 to clamp it to the razor-handle, and this trough carries a series of small blocks 15 of magnetic metal, which blocks are separated by strips 16. These blocks will have the effect of an iron bar on the magnetic blade 11 and will eventually become magnetized; but they will be of opposite polarity to that of the blade, and so will have the desired attractive effect. This is especially so because the magnets will be broken up in such a way as to have the lines of force exerted all along the edge of the tool. In this connection it may be stated that while it is more advisable to have the edged tool a magnet, still a beneficial result can be obtained if the tool is not magnetized at the start, but the magnet is opposite its edge.

The modifications make it clear that many forms of holding devices can be used to bring the magnetic metal opposite the magnetized blade, and therefore I do not limit myself to either form shown nor to any precise form of holding means.

In practice it will be found that the result

desired is not suddenly obtained, and therefore it is necessary to apply the device to the blade by holding it in close proximity thereto, but out of contact therewith, and leave
5 the parts in this position for quite a period of time, at least several days, and preferably a week or two. In this way it will be found that the gradual magnetic strain will cause the particles of the edge to assume their prop-
10 erly-aligned position for the best cutting.

From the foregoing description it will be seen that the metal held opposite the edge may either be detachably connected to the tool or made a part thereof; but I preferably
15 have it detachable, as shown, so that when the tool is used it will be entirely unhampered.

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

20 1. The combination with a magnetized tool having a cutting edge, of magnetic material held opposite the edge whereby the magnetic attraction of the parts is exerted along the cutting edge of the tool.

25 2. The combination with a magnetized blade having a cutting edge, of magnetic metal held opposite the cutting edge and in fixed relation thereto whereby the magnetic

attraction between the parts is exerted along the said cutting edge.

3. The combination with a tool having a cutting edge, said edge being magnetized, of a strip of magnetic metal held opposite the
30 said cutting edge.

4. The combination with a tool having a magnetized cutting edge, of a strip of mag-
35 netic metal adjustably secured to the tool and held opposite the cutting edge thereof.

5. The combination with a tool having a magnetized cutting edge, of a bar of mag-
40 netic material adapted to lie opposite the said cutting edge, and clips secured to the bar and adapted to clamp the bar to the tool.

6. The combination with the magnetized blade having a cutting edge, and the handle,
45 of a soft-iron bar to fit the handle and lie opposite the cutting edge, and clips secured to the bar and adapted to fit the handle and clamp the bar thereto.

In testimony whereof I have hereunto set
50 my hand in the presence of two subscribing witnesses.

THERON DAVIS.

Witnesses:

WARREN B. HUTCHINSON,
J. G. DUNBAR.