No. 652,879. Patented July 3, 1900.

G. F. BARNETT.

APPARATUS FOR SHARPENING RAZORS, KNIVES, OR CUTTING INSTRUMENTS.

(Application filed Aug. 17, 1899.)

(No Model.)

FIG. 1.

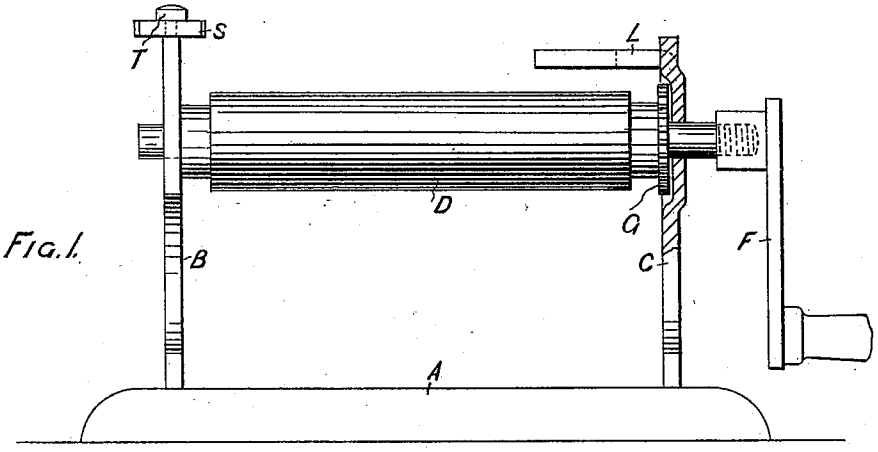


FIG. 2.

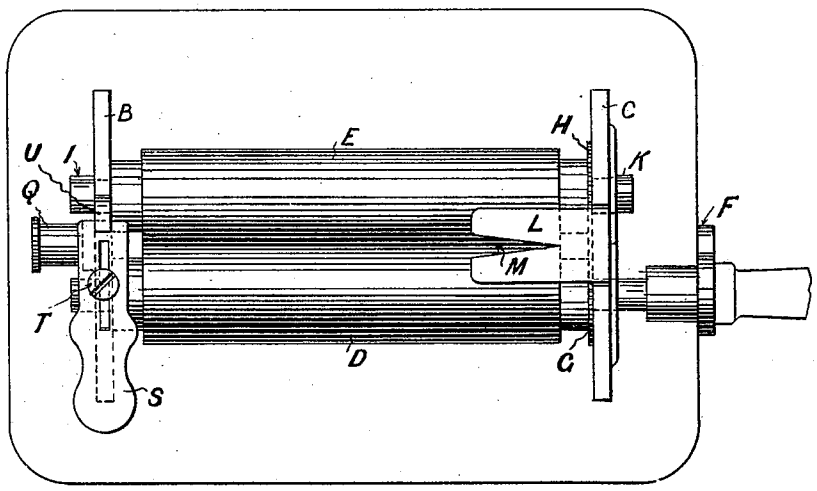


FIG. 3.

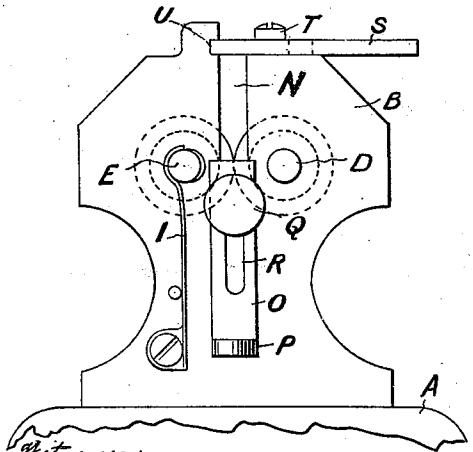
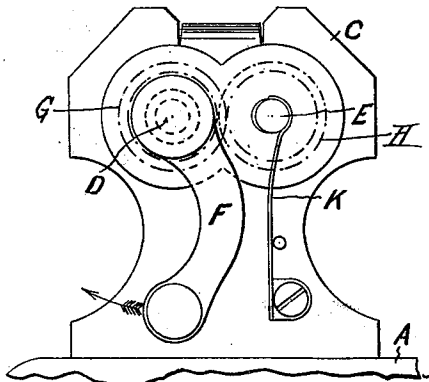


FIG. 4.



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UNITED STATES PATENT OFFICE.

GEORGE FREDERICK BARNETT, OF LONDON, ENGLAND.

APPARATUS FOR SHARPENING RAZORS, KNIVES, OR CUTTING INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 652,879, dated July 3, 1900.

Application filed August 17, 1899. Serial No. 727,553. (No model.)

To all whom it may concern:

Be it known that I, GEORGE FREDERICK BARNETT, commercial traveler, a subject of the Queen of Great Britain, residing at London, England, have invented certain new and useful Improvements in Apparatus for Sharpening Razors, Knives, or other Cutting Instruments or Tools; 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in apparatus for sharpening razors, knives, and other similar cutting instruments or tools.

Figure 1 of the accompanying sheet of drawings represents in front elevation a sharpening or stropping apparatus constructed according to my invention. Fig. 2 is a plan thereof. Fig. 3 is a left-hand elevation, and Fig. 4 is a right-hand elevation.

According to my invention I construct a suitable base or stand A, provided with supports B and C, in which I mount a pair of rollers D and E, covered with leather, india-rubber, or other suitable material. These rollers may or may not have razor-paste, emery, or other sharpening or polishing material rubbed on or fed to their surfaces, all as found desirable or necessary. The rollers are parallel to each other, in contact, adapted to revolve in opposite directions, and one of them—say D—is suitably provided with a crank and handle F, if to be turned by hand, and with speed-multiplying gear in addition to the handle, if desired, or with a pulley or the like if to be revolved by power. The roller D is further provided with a spur-wheel G, gearing with another spur-wheel H, mounted on the roller E, which insures an equal and uniform rotation to each roller. The bearings of the rollers may be fixed or adjustable either permanently or elastically, but in practice I prefer that the roller E shall be automatically adjustable, and for this reason it is conveniently made to run in an elongated hole in each of the supports B and C, and it is kept constantly in contact with the roller D by means of springs I and K or some other equivalent device. The roller D might be provided with elastic bearings and the roller E with rigid bearings, but it is on the whole preferable that the roller, which is or may be subjected to uneven strains, (such as would be communicated by the handle in turning the same,) should not be capable of any displacement or distortion except that caused by the razor or other instrument which is being sharpened.

The frame is provided with a dovetailed or otherwise-constructed holder to hold or clamp the razor-blade or other tool or instrument, and means in some cases provided for varying the distance between the holder and the point of contact of the rollers to suit the width of the different-sized razors or the like. The holder may be made to hinge or swivel or to slide in and out of the frame, or it may be fixed, all as found most convenient.

In the construction shown the support C is provided with a lug or projecting part L, having a dovetail-shaped slot M, (best seen in Fig. 2,) and the support B is provided with a slot N, (see Figs. 2 and 3,) in which is mounted a rest O, having a lug or handle P, and the support is provided with a screwed hole, into which goes a milled-headed screw Q. The rest O is also provided with a slot R, through which the shank of the screw Q passes, and when the rest O has been raised sufficiently the screw Q is screwed up and clamps the said rest in position. In order that it may not be necessary to undo the screw when removing the razor or the like, the support B is provided with a gate S, having a slot therein, through which passes a screw T and locking when moved forward under the catch U. The blade of the razor, being wedge-shaped or thereabout in section is pushed into the swallow-tailed slot M as far as it will go when the edge of the razor is in its proper position between the two rollers, and the rest O is then fixed at the proper height to support the shank of the razor. The gate S is then closed, the handle F is revolved in the direction of the arrow, Fig. 4, and in due course the razor is sharpened. I wish it, however, to be understood that I do not limit myself to the par-

ticular construction of holder shown, as other constructions may be used without departing from my invention.

The frame is either held firmly by hand during the sharpening operation or it is screwed or clamped to a table or elsewhere to hold it steady.

I claim—

1. In an edge-tool sharpener, the combination with a pair of sharpening-rolls and means for revolving the same in opposite directions; of a tool-holder at one end and a tool-rest at the opposite end of and in line with the meeting edges of said rolls, and means for locking the tool against endwise motion to said tool-rest, for the purposes set forth.

2. In an edge-tool sharpener, the combination with a pair of sharpening-rolls and means for revolving the same in opposite directions; of a tool-holder at one end of and in line with the meeting edges of said rolls, a tool-rest at the opposite end of and also in line with said meeting edges of the rolls, means for adjusting said tool-rest vertically and means for locking the tool against endwise motion to its rest, for the purpose set forth.

3. In an edge-tool sharpener, the combination with a support, a pair of sharpening-rolls of equal diameter mounted thereon and geared together, one of said rolls provided with a crank; of a horizontal lug projecting over one end of the rolls and provided with an angular slot M in line with the meeting edges of said rolls, a vertical slot N in said support at the opposite end of the rolls also in line with their meeting edges, a tool-rest O adjustable along said slot and the sliding gate S, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my invention I have signed my name in the presence of two subscribing witnesses.

GEORGE FREDERICK BARNETT.

Witnesses:

V. JENSEN,

W. M. HARRIS.