

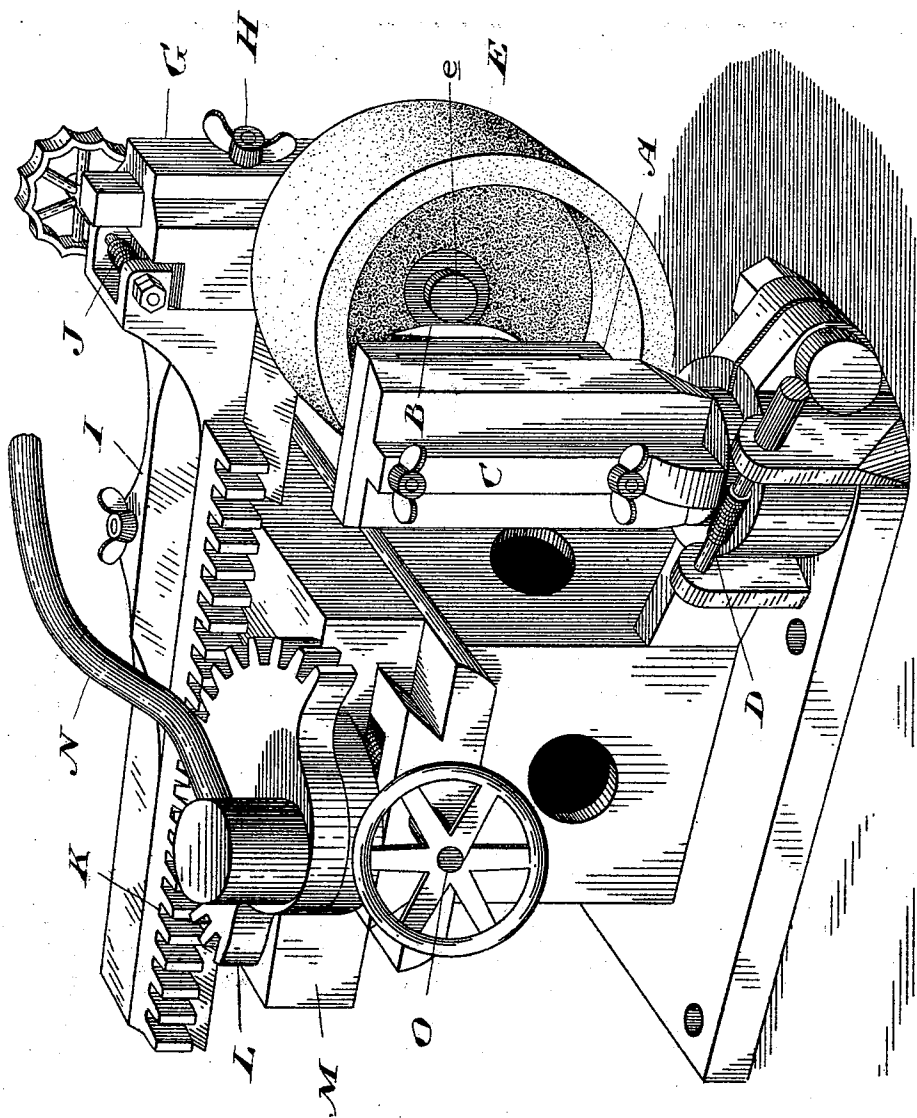
(No Model.)

2 Sheets—Sheet 1.

D. S. HENDERSON.
MACHINE FOR SHARPENING CLIPPERS.

No. 505,899.

Patented Oct. 3, 1893.



Witnesses

J. Edw. Maybee
W & G. M. M. Co.

Inventor

David S. Henderson
by Donald C. Ridout Esq
Atty

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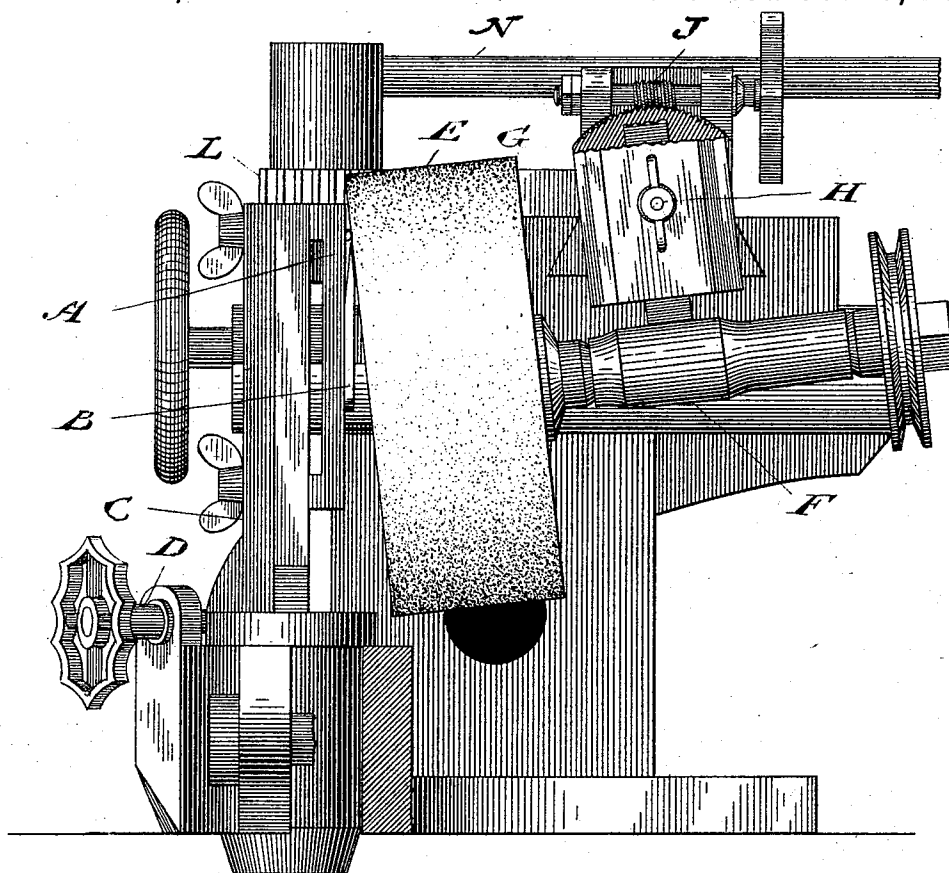


Fig. 2

Fig. 3.

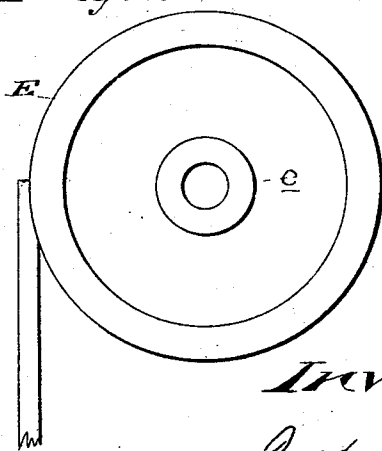


Fig. 4.



Witnesses

J. Edw. Maybee
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Inventor

David S. Henderson
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UNITED STATES PATENT OFFICE.

DAVID S. HENDERSON, OF BRANTFORD, CANADA.

MACHINE FOR SHARPENING CLIPPERS.

SPECIFICATION forming part of Letters Patent No. 505,899, dated October 3, 1893.

Application filed November 7, 1892. Serial No. 451,195. (No model.)

To all whom it may concern:

Be it known that I, DAVID S. HENDERSON, of the city of Brantford, in the county of Brant, in the Province of Ontario, Canada, have invented a certain new and Improved Machine for Sharpening Clippers, of which the following is a specification.

The object of the invention is to design a machine by which hair clippers may be concaved and sharpened with rapidity and accuracy, and it consists, essentially, of an adjustable plate to which the clipper is cemented, an emery wheel set so that the edge of its periphery shall act upon the surface of the clipper, all parts of the machine being adjustable as hereinafter more particularly explained.

Figure 1 is a perspective side view of my improved clipper grinder. Fig. 2 is a front elevation of the same. Fig. 3 is a skeleton view illustrating the concaving of the clipper. Fig. 4 is an enlarged view showing the concaved and sharpened edge of the clipper.

In the drawings, A represents a plate on the surface of which I cement the clipper B, which I may wish to sharpen. The plate A is bolted to the post C as indicated, so that it may be readily removed for the purpose of fixing on or taking off the clipper B. The post C is vertically adjustable and may also be revolved by the worm-spindle D, in order that a proper portion of its surface may be brought into proper line with the emery wheel E mounted on a shaft *e*. This emery wheel is caused to revolve and is carried in a suitable bearing box F, which is carried in the head G, and is vertically adjustable therein, being held at any desired position by means of the thumb-screw H, as indicated in the drawings. This head is pivoted on the end of the slide I, and may be turned in a vertical plane by means of the worm-spindle J. On the side of the slide I, (see Fig. 1) is formed a rack K, which rack engages with the teeth in the quadrant L which is pivoted on the cross-slide M, and provided with the hand lever N, as indicated.

The slide M is adjusted by the screw O,

and in operating the machine, the said slide M is moved by the said screw nearer to the plate A, to bring the emery wheel in contact with the clipper, the hand-lever N being employed for the purpose of imparting a reciprocating movement to the slide I, on which the emery wheel E is carried as shown, so that the whole length of the edge of the clipper may be subjected to the action of the emery wheel.

On reference to Fig. 2, it will be seen that the bearing box F is turned in a horizontal plane so that instead of lying at right angles to the line of direction in which it moves when the slide I is operated, it shall cross the said line obliquely. If the bearing box is set at right angles to the direction in which it moves, the emery wheel will grind perfectly flat and if it be turned through an angle of ninety degrees, it will be seen on reference to Fig. 3, that the emery wheel will grind a very deep concave and a proportionate concave will be cut at intervening angles. Thus by setting the bearing box F at a suitable angle, the clipper is ground to the concave desired. It is also necessary that the edge of the clipper should be ground to a bevel. This is accomplished by turning the head G by means of the worm J, so as to swing the bearing box F from the horizontal and thus cause the emery wheel E, to act at an angle on the clipper and bevel the edge as desired. By thus adjusting the bearing box F in the two directions described, the emery wheel will be set to grind the edge of the clipper as shown in Fig. 4, and it will be seen that my machine is also adjustable in every other direction required to make it do the desired work.

What I claim as new is—

1. The combination in a sharpening machine, of a support for the article to be ground, an emery wheel mounted on a revolving shaft *e*, a bearing box for said revolving shaft, an adjustable head carrying said bearing, a slide on which said head is mounted, a rack on said slide, a toothed quadrant meshing with said rack, and a lever for op-

erating said quadrant, substantially as described.

2. A plate fixed to a post which is vertically and revolubly adjustable, an emery-wheel fixed to a revolving spindle carried in
5 a bearing box carried by an adjustable head on a slide, in combination with a quadrant geared to a rack on a slide, and operated by

a hand-lever; substantially as and for the purpose specified.

Brantford, October 19, 1892.

DAVID S. HENDERSON.

In presence of—

WALTER A. WILKES,
W. B. DUNN.