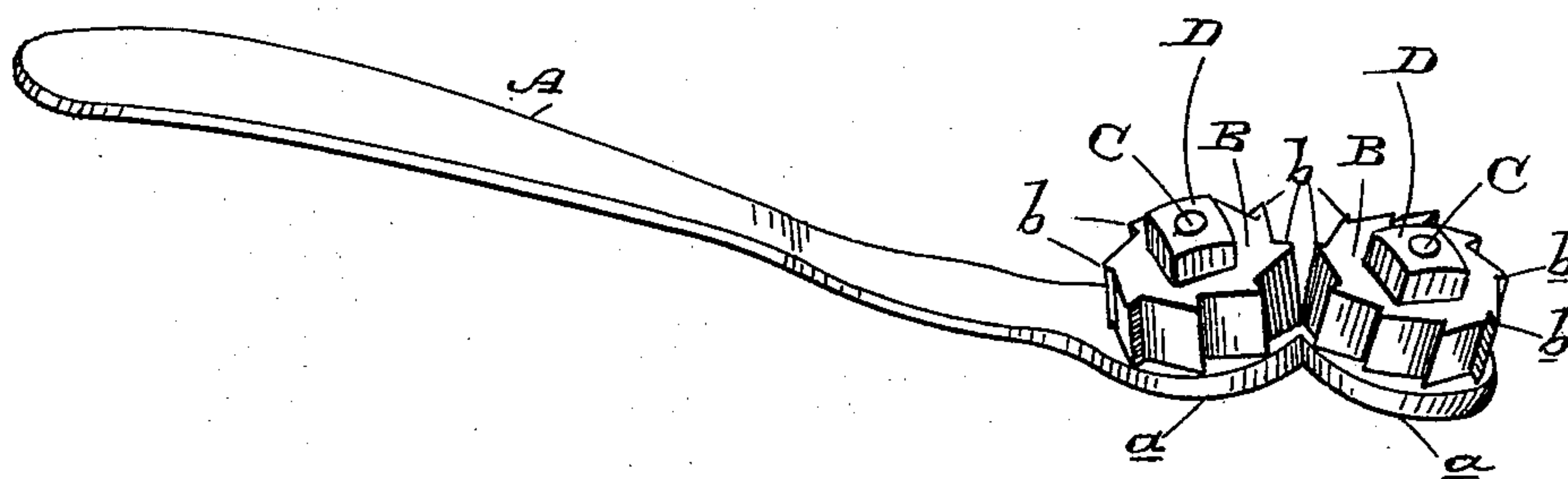


(No Model.)

J. S. BLOOD.  
KNIFE SHARPENER.

No. 435,553.

Patented Sept. 2, 1890.



Witnesses,  
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# UNITED STATES PATENT OFFICE.

JOEL SEVERANCE BLOOD, OF NAPA CITY, CALIFORNIA, ASSIGNOR OF ONE-HALF TO EMANUEL MANASSE, OF SAME PLACE.

## KNIFE-SHARPENER.

SPECIFICATION forming part of Letters Patent No. 435,553, dated September 2, 1890.

Application filed June 11, 1890. Serial No. 355,084. (No model.)

*To all whom it may concern:*

Be it known that I, JOEL SEVERANCE BLOOD, a citizen of the United States, residing at Napa City, Napa county, State of California, have  
5 invented an Improvement in Knife-Sharpeners; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of devices for sharpening knives in which opposing converging steel edges are used, between which the knife-blade is drawn, and especially to that sub-class in which the edges are those of steel disks or plates mounted axially upon a stock and adapted to be adjusted to present fresh edges when required and fixed in the positions to which they are adjusted.

My invention consists in the novel improved knife-sharpener of this class herein-after fully described, and specifically pointed out in the claims.

The object of my invention is to provide a simple and effective knife-sharpener, the  
25 disks or plates of which are formed with improved sharpening-edges projecting from their peripheries and adapted to be successively brought into use as required.

Referring to the accompanying drawing for a more complete explanation of my invention, the figure is a perspective view of my improved knife-sharpener.

A is the stock, one end being formed into a handle and the other end being made with  
35 seats *a* for the cutting-disks, said seats joining each other at an angle, as shown.

B are the disks or plates set upon seats *a*, and on account of the relative angular position of said seats the two disks have their  
40 adjacent peripheries converging from the top, where they are separated the widest, to the bottom, where they come close together.

Through the seats and through the centers of the disks pass pins or rivets C, which receive nuts D, whereby the disks are held to  
45 place and tightened, and may be relieved and turned axially and tightened again in a fresh place.

The peripheries of the disks are made with  
50 projecting edges *b* in any suitable number, and a pair of these when brought around to oppose each other form the cutting-edges con-

verging downwardly, and between which the knife-blade is drawn.

This device is capable of two forms of adjustment. The first is an axial one obtained by loosening the nuts D and turning the disks upon the pins C, and its effect is to bring into use a fresh pair of opposing edges when the preceding pair becomes dull. The  
60 second is a reversible one obtained by removing the nuts, taking off the disks, and setting them back upon the pins upside down. The effect of this is to bring into use an entire new set of edges by utilizing what was  
65 before their top portions, which, in their former positions, were not in use, but which by now becoming the bottom portions are ready for action, and can be brought severally into use by the axial adjustment. Thus the  
70 instrument is adapted for long and effectual use.

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

1. In a knife-sharpener, opposing rotary adjustable disks or plates having projecting from their peripheries a series of edges between opposing ones of which the knife-blade is drawn, substantially as herein described. 80

2. In a knife-sharpener, opposing disks set at an angle with each other and having a series of edges on their peripheries between which the knife is drawn, said disks being removably secured, whereby they may be reversed  
85 to utilize the edges throughout their lengths, substantially as herein described.

3. A knife-sharpener consisting of the stock having the seats set at an angle to each other, the adjustable opposing disks or plates resting on said seats and having projecting from their peripheries a series of edges between opposing ones of which the knife-blade is drawn, the pins or rivets upon which the disks or plates are set and adjusted, and the  
95 nuts on said pins or rivets for holding the disks or plates, substantially as herein described.

In witness whereof I have hereunto set my hand.

JOEL SEVERANCE BLOOD.

Witnesses:

WM. GWYNN, Jr.,

H. W. WALTER.