Nov. 11, 1924. 1,515,210

F. J. KALTEYER

BLADE HONE OR STROP

Filed June 24, 1920

Fig. 1.

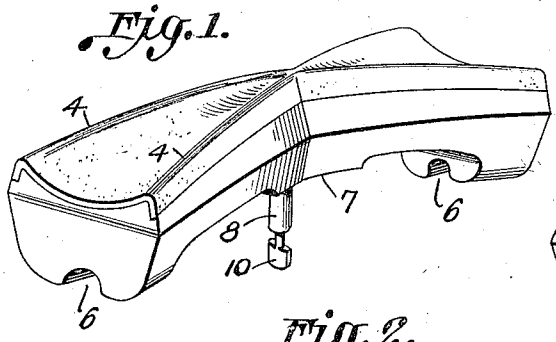



Fig. 6.

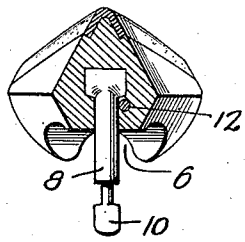



Fig. 2.

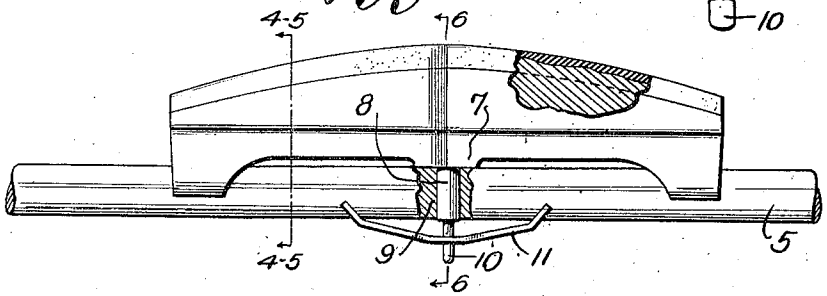



Fig. 3.

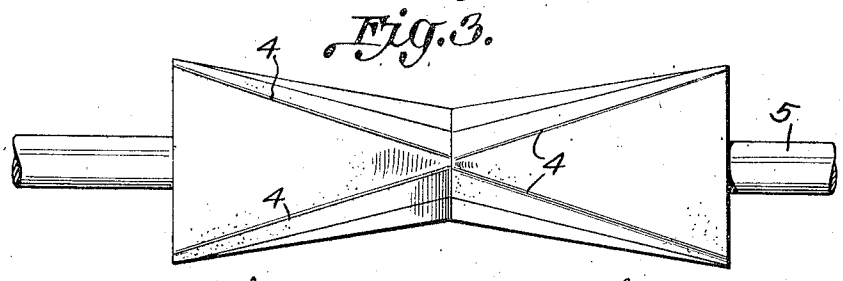



Fig. 4.

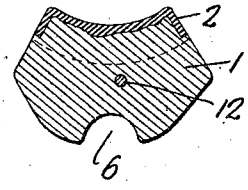
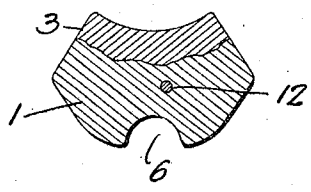



Fig. 5.




INVENTOR.

Frederick J. Kalteyer,

BY

ATTORNEY.

Patented Nov. 11, 1924. 1,515,210

# UNITED STATES PATENT OFFICE.

FREDERICK J. KALTEYER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO ELECTO-STROP MANUFACTURING COMPANY, A CORPORATION OF PENNSYLVANIA.

## BLADE HONE OR STROP.

Application filed June 24, 1920. Serial No. 391,484.

*To all whom it may concern:*

Be it known that I, FREDERICK J. KALTEYER, citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Blade Hones or Strops, of which the following is a specification.

My invention relates to honing or stropping rolls for razor blade sharpening devices. It has for its object to provide a novel construction whereby in the rotation of the roll the blade will be given a honing or stropping stroke by ribs on the roll so disposed that one rib will contact successively with different portions of the blade edge in one direction and another rib will likewise contact with different portions of the edge in an opposite direction on the same side of the blade, thus obtaining better honing or stropping effects and a smoother and better cutting edge to the blade; also to provide a smoother and more even and regular surface to the active honing or stropping face so as to obtain a more regular surface to the face or cutting edge of the blade; and also to effect a stronger union between the honing or stropping material and body of the hone or strop, thus materially adding to the life or durability of the hone or strop and preventing the loosening or separation of the honing or stropping surface from the body of the hone or strop.

To the accomplishment of the foregoing and such other objects as may hereinafter appear the invention consists in the features hereinafter particularly described and then sought to be clearly defined by the claims, reference being had to the accompanying drawing forming a part hereof and in which—

Figure 1 is a perspective of the improved hone or strop;

Figure 2 is a side view of the same showing it attached to a rotatable shaft and showing parts broken away and sectioned;

Figure 3 is a plan view of the hone or strop;

Figure 4 is a cross section on the line 4—4 of Figure 2 showing a stropping surface applied to the strop;

Figure 5 is a cross section on the line 5—5 of Figure 2 showing a honing surface applied;

Figure 6 is a cross scetion on the line 6—6 of Figure 2.

In the drawing the numeral 1 designates the body of the hone or strop; 2 a stropping surface or covering, preferably of leather, and 3 a honing surface or coating of any appropriate abrasive or honing material. The body of the hone or strop is made of any suitable plastic material capable of being molded and preferably possessing when set or hardened characteristics of relative hardness and non-fragibility. While the body in a plastic or moldable state a coating 3 of honing material, or covering 2 of stropping material, such for instance as leather, is applied to what will be the active surface of the hone or strop and conforming substantially to the outline of the active surface of the body, and suitable pressure then applied to the mold so as to cause the honing or stropping material to become imbedded in the plastic body of the hone or strop, a suitable adhesive substance having been previously applied between the surfaces of the plastic body and coating or covering if thought best or advisable so to do. The application of pressure to the mold presses out any irregularities that might exist in the outer or active surface of the honing or stropping material and causes the same to be taken-up or become imbedded in the plastic body as indicated by the irregular lines shown in Figures 2 and 4 so that the honing or stropping material is thus firmly keyed to the plastic body and the active surface is caused to be regular and even so that an even honing or stropping surface is provided for contact with the blade being honed or stropped.

The active or working face of the hone or strop is shaped so that in the rotation of the hone or strop in the operation of sharpening a blade the hone or strop will rub or wipe the same side of the blade by one rib coming successively into contact with different portions of the blade-edge while another rib will likewise contact with different portions of the edge in an opposite direction with the object of giving to the blade a smoother and better cutting edge; and by employing a pair of the hones or strops, one for each side of a blade both sides of the blade will be honed or stropped in the same manner. The preferred embodiment of this feature of the invention is attained

by giving to the active or working surface of the hone or strop the outline, longitudinally of its axis, of two V-shaped members or ribs 4 with their apices together or meeting, so that in rotation of the hone or strop one side of the hone or strop will rub or wipe the razor blade in the direction or towards the apices of the ribs and the other ribs when brought into contact with the blade will rub or wipe the blade in the opposite direction or away from the apices, thus giving to the same side of the blade two wipings or rubs in opposite directions in each revolution of the hone or strop and giving to the blade a smoother and otherwise better cutting edge.

For the purpose of securing the hone or strop to the spindle or shaft 5 by which it is rotated and affording a stable bearing thereon, the hone or strop is formed at opposite ends with sockets or depressions 6 which receive the spindle or shaft and tend to prevent lateral movement of the hone or strop and is also formed with a centrally disposed boss 7 which will rest upon the shaft and which is provided with a pin 8 designed to pass through an opening 9 in the shaft and provided with a screw or swiveled thumb-nut 10 which secures a plate 11, preferably of spring metal, with its ends bearing against the spindle or shaft 5 as illustrated in Figure 2 so as to prevent the hone or strop being lifted off the shaft when in operation, although other means of attachment of the hone or strop may be employed as found convenient or desirable.

If desired a reinforcing rod 12 may be embedded in the body 1 extending longitudinally of its axis.

The plastic material of which the body of the hone is made consists of calcium carbonate and silicate of soda in appropriate proportions to form a mixture of a putty-like or semi-solid, plastic or dough-like consistency. The consistency of the mass may be more or less varied by adding more or less of the silicate of soda to the calcium carbonate, to suit the existing conditions.

I have illustrated and described with particularity the preferred details of the several features but it is to be understood that changes may be made therein and some features may be omitted without departing from other essential features of the invention.

The designation "hone" as used in the claims is to be considered as indicating or embracing the device whether designed or used for either stropping or honing purposes.

Having described my invention and set forth its merits what I claim is:

1. A blade hone comprising a rotatable body provided with a plurality of substantially V-shaped oppositely disposed wiping ribs, the apex of one set of ribs being adjacent to the apex of the other set.

2. A blade hone comprising a body provided with wiping ribs and formed at its ends with aligned cavities to receive a rotatable shaft and between the ends with a boss to rest on the shaft, and means for attaching the body to the shaft to rotate therewith.

3. A blade hone comprising a body provided with wiping ribs and formed at its ends with aligned cavities to receive a rotatable shaft and between its ends provided with a pin to enter the shaft and means cooperating with the pin for attaching the body to the shaft to rotate therewith.

In testimony whereof I affix my signature.

FREDERICK J. KALTEYER.

Witnesses:

FRANCES A. COMBER,

CHAS. H. WOLFF.