

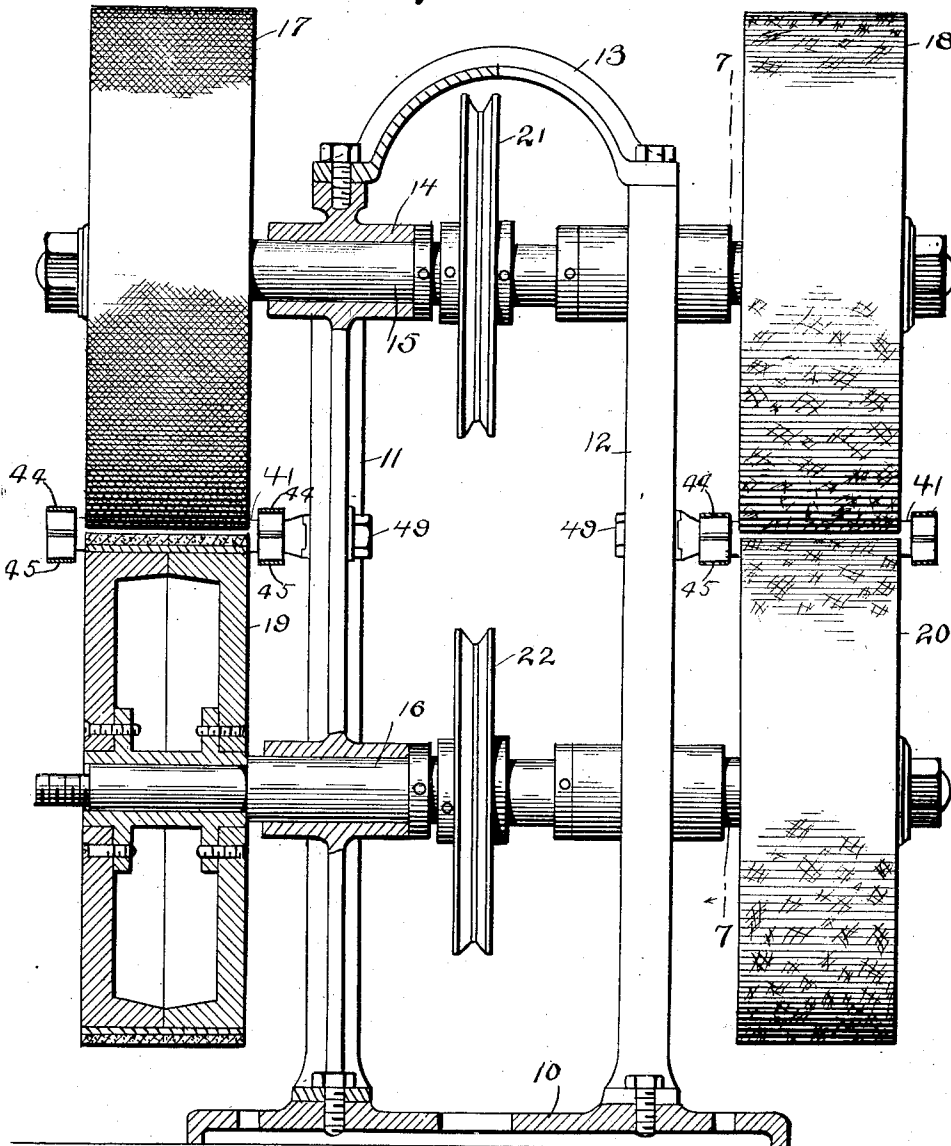
A. E. HILL.
MACHINE FOR SHARPENING BLADES OF SAFETY RAZORS.
APPLICATION FILED APR. 25, 1911.

1,037,763.

Patented Sept. 3, 1912.

4 SHEETS—SHEET 1.

Fig 1.



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Fig. 2

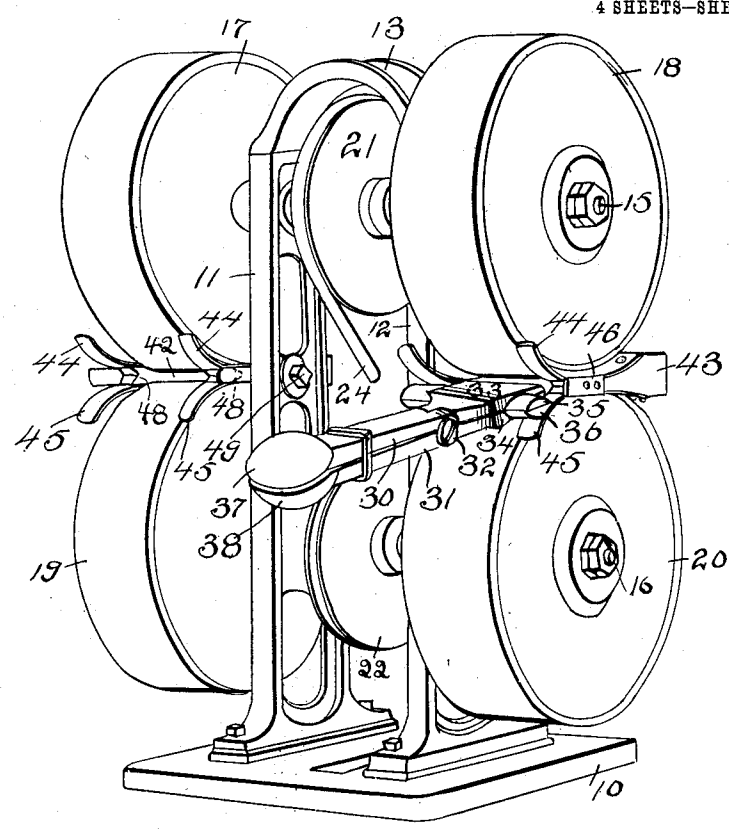
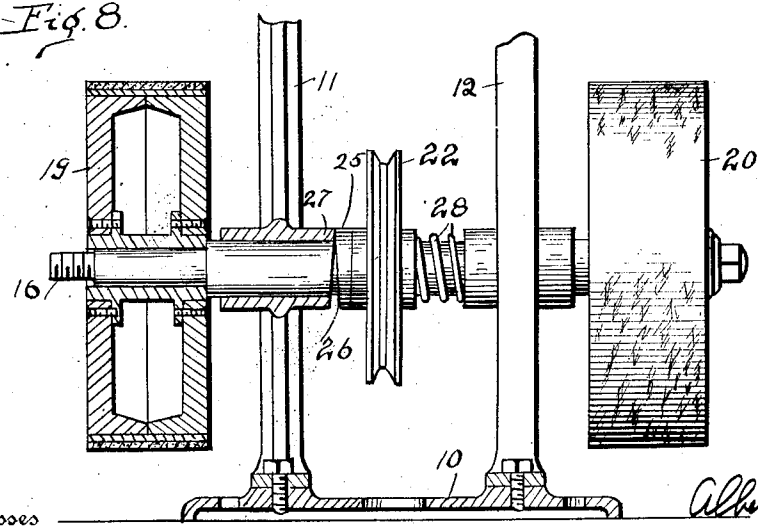


Fig. 8



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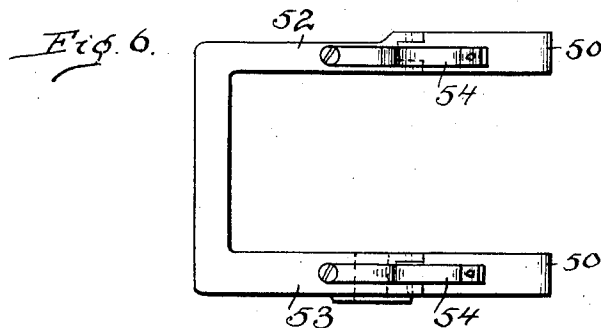
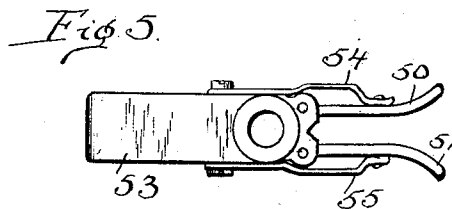
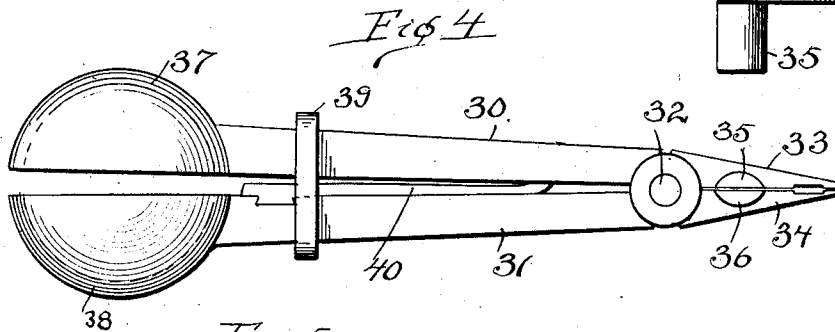
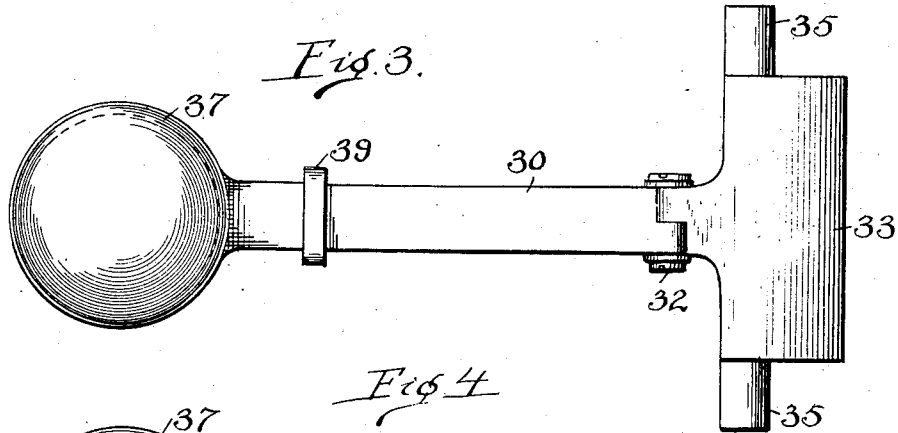
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4 SHEETS—SHEET 3.



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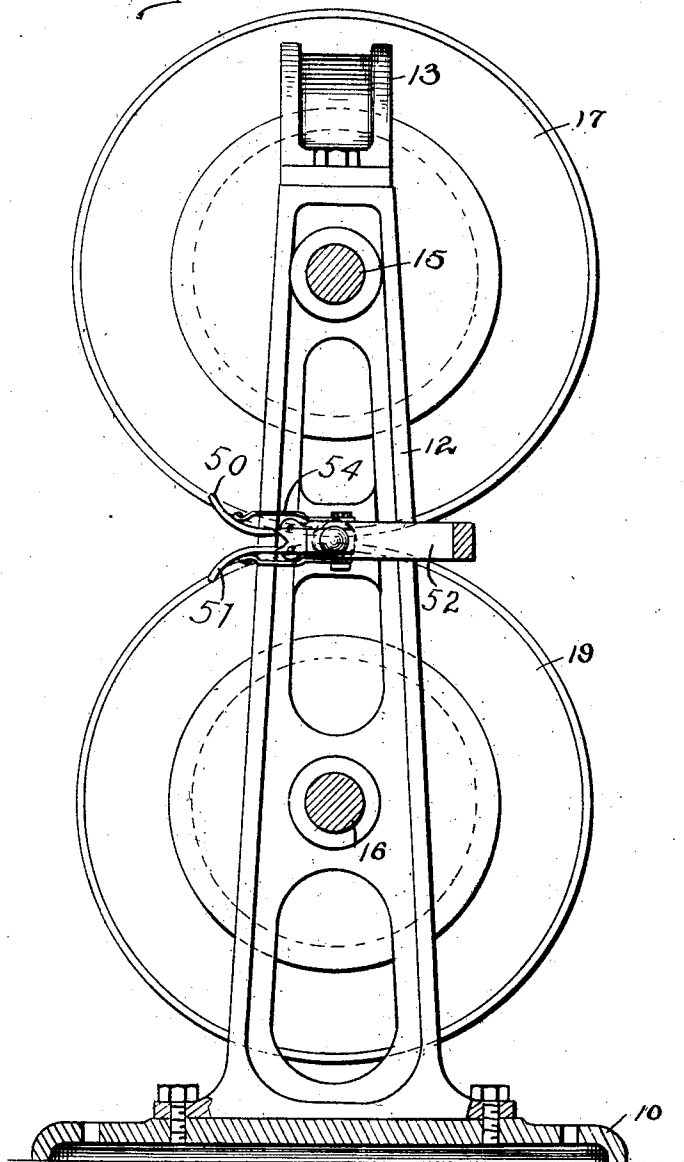
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4 SHEETS—SHEET 4.

Fig. 7



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UNITED STATES PATENT OFFICE.

ALBERT E. HILL, OF ATLANTA, GEORGIA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO A. E. HILL MANUFACTURING COMPANY, A CORPORATION OF GEORGIA.

MACHINE FOR SHARPENING BLADES OF SAFETY-RAZORS.

1,037,763.

Specification of Letters Patent.

Patented Sept. 3, 1912.

Application filed April 25, 1911. Serial No. 623,266.

To all whom it may concern:

Be it known that I, ALBERT E. HILL, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Machines for Sharpening Blades of Safety-Razors; 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.

This invention relates to machines for sharpening blades of safety razors, and the object is to provide improved means for holding the blades in position for being sharpened, and improved means for retaining the blade-holding devices in position.

A further object is the provision of resilient means for supporting the blade-holding devices.

Other objects will appear from the following description.

In the accompanying drawings forming part of this application, Figure 1 is a view of the device in front elevation, with portions shown in section. Fig. 2 is a perspective view. Fig. 3 is a top plan view of the pliers for holding the razor blades. Fig. 4 is a side elevation thereof. Fig. 5 is a view in side elevation of one form of frame for holding the pliers. Fig. 6 is a plan view of the construction shown in Fig. 5. Fig. 7 is a section of the machine on the line 7-7 of Fig. 1 the plier holding frame having, however, the form shown in Figs. 5 and 6. Fig. 8 shows means for imparting a lateral movement to the buffing wheels during rotation.

In carrying out my invention, I provide a framework including a base 10, uprights 11 and 12 and a yoke member 13 connecting the upper portions of the uprights. Mounted in suitable bearings 14 of the uprights are shafts 15 and 16 carrying the pulleys which are provided on their surfaces with a suitable covering and constitute buffing wheels. These wheels are indicated respectively by the numerals 17, 18, 19 and 20. The upper shaft 15 carries a grooved pulley 21, centrally mounted on said shaft, and lower shaft 16 carries a central pulley 22, these pulleys being driven by means of a suitable belt 24 for operating the buffing wheels. The belt is so arranged that the wheel 21 and

the buffing wheels 17 and 18 are driven in a direction opposite to that in which the pulley 22 and the wheels 19 and 20 are driven.

In Fig. 8 there is shown a modified form of mounting the buffing wheels in order that they may be given a lateral movement in addition to the rotary movement. This is effected by providing a collar 25 on shaft 16, such collar having a cam surface 26 arranged to bear against the beveled end 27 of one of the bearing boxes of the frame. A spring 28 encircles shaft 16 on the opposite side of pulley 22 and tends to return the shaft to its original position after having been shifted by the cam acting on beveled end portion 27.

The blade holder consists of a pair of pliers shown in Figs. 3 and 4, and having two members 30 and 31 pivoted at 32 and provided with jaws 33 and 34, these jaws each having fulcrum members, indicated by 35 and 36. The ends of the members 30 and 31 are enlarged as shown at 37 and 38 and form a ball shaped device which may be conveniently grasped by the hand. A band 39 extends around members 30 and 31 and a spring 40 is arranged between them. The jaws of the pliers are grooved and are adapted to grip and securely hold any form of razor blade manufactured.

The device for receiving the blade holders or pliers consists of a U-shaped frame 41 having side members 42 and 43 and spring fingers 44 and 45 between which the fulcrum members or trunnions 35 and 36 are located. The frames 41 may be connected with the uprights 11 and 12 of the framework of the machine by means of bolts 49. The ends of members 42 and 43 are provided with sockets 48, and trunnions 35 and 36 are received in these sockets and between the fingers 44 and 45. Guards 46 are located in the position shown. This construction permits of the mounting of the blade-holding device in such manner that the blades will bear against the periphery of the buffing wheels, but will not be rigidly held, and may be manipulated by the operator for the purpose of securing the best results.

A further form of plier holding device or frame is shown in Figs. 5 and 6, in which fingers 50 and 51 are pivotally connected with each of the side members 52 and 53, and are held in position by separate flat springs 54 and 55.

What I claim is:

1. In a machine of the class described, a frame, a plurality of axles mounted therein, a buffing wheel carried by each of the axles, the wheels being in approximate contact at one place, a second frame carried by the frame first mentioned and between the buffing wheels, the second frame comprising a plurality of arms and a central portion connecting the arms, the connecting portion being on one side of the line of approximate contact of the wheels, and the arms extending across the line, and socket members on the ends of the arms, in position to receive a blade-holding device between the wheels, portions of the latter rotating between the blade-holding device, the arms, and the portion connecting the arms.

2. In a machine of the class described, a frame, a plurality of buffing wheels mounted

thereon, the wheels being in approximate contact at one place, a second frame carried by the frame first mentioned and comprising a plurality of arms and a portion connecting the arms, the connecting portion being on one side of the line of approximate contact of the wheels, and the arms extending across the line, and resilient devices forming, with the ends of the arms, socket members, said resilient devices being secured to opposite sides of the arms and in position to receive a blade-holding device and to support the latter between the adjacent portions of the buffing wheels.

In testimony whereof I affix my signature in presence of two witnesses.

ALBERT E. HILL.

Witnesses:

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