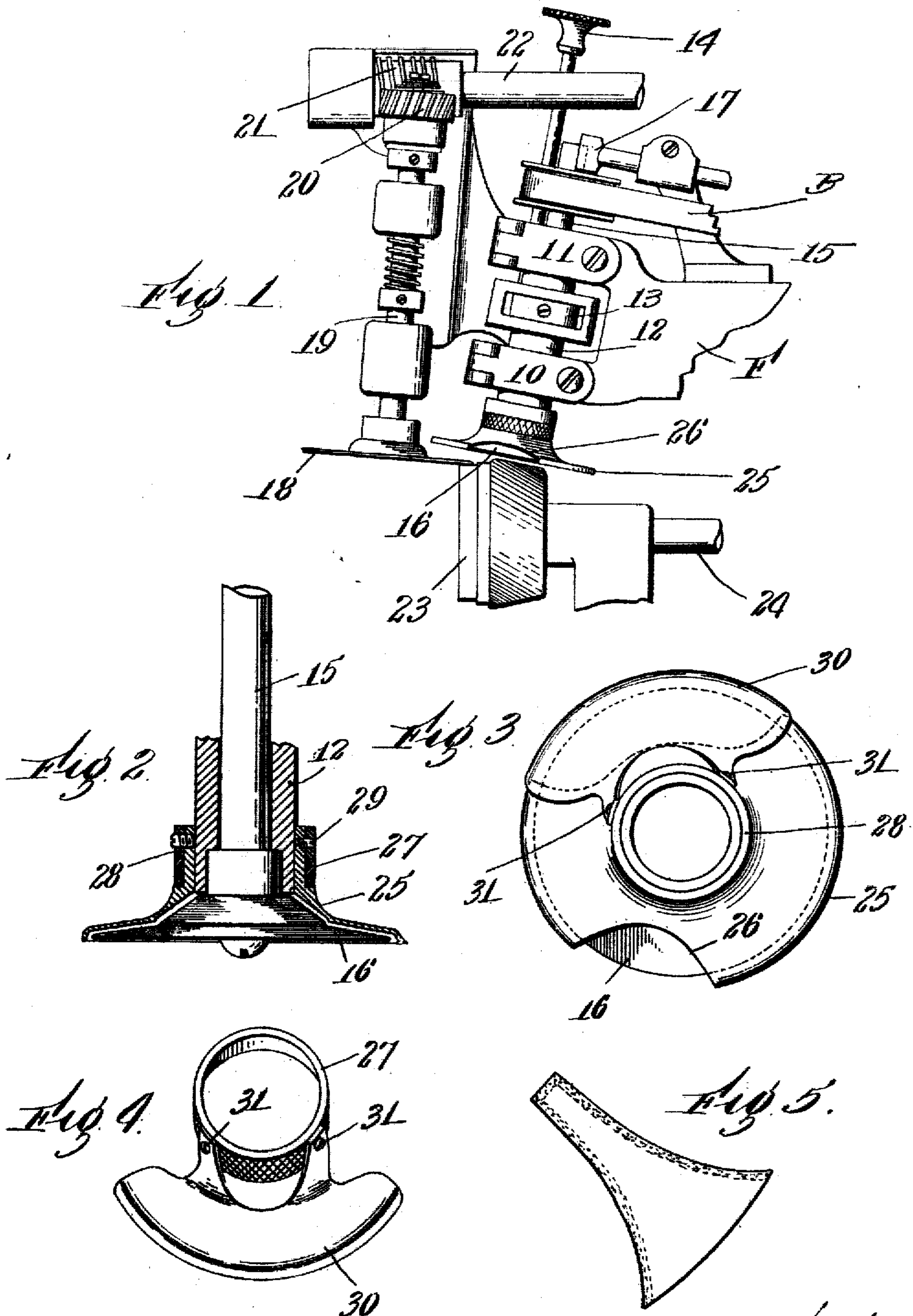


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L. B. LEGGE.
CUTTER GUARD FOR SHOE MACHINERY.
APPLICATION FILED MAR. 24, 1905.



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CUTTER-GUARD FOR SHOE MACHINERY.

No. 822,860.

Specification of Letters Patent.

Patented June 5, 1906.

Application filed March 24, 1905. Serial No. 251,785.

To all whom it may concern:

Be it known that I, LIONEL B. LEGGE, a citizen of the United States, residing at Worcester, in the county of Worcester and State of Massachusetts, have invented a new and useful Cutter-Guard for Shoe Machinery, of which the following is a specification.

This invention relates to that class of trimming-machines which are used for skiving or thinning the edges of pieces of leather or other stock.

The especial object of this invention is to provide a guard inclosing and protecting the disk-shaped cutter of a machine of the class referred to.

A further object of this invention is to provide a guard which can be opened, so that the cutter can be ground and sharpened.

To these ends this invention consists of the cutter-guard and of the combinations of parts therewith, as hereinafter described, and more particularly pointed out in the claims at the end of this specification.

In the accompanying drawings, Figure 1 is a side view of sufficient parts of a trimming-machine to illustrate the application of this invention thereto. Fig. 2 is an enlarged view of the cutter-disk, the guard being shown in section. Fig. 3 is a plan view of the same. Fig. 4 is a detail view of the movable piece of the guard, and Fig. 5 is a detail view illustrating a sample of the class of work which may be done on machines of the class to which this invention relates.

The trimming-machines which are now extensively employed in cutting pieces for making boots and shoes ordinarily comprise cutting-disks which are combined with work-guiding disks and wheels which will present the work in proper position so that the edges will be cut or trimmed by the cutting-disks. In using machines of this kind naked cutting-disks have heretofore been employed, and it frequently happens that the operators cut themselves seriously upon the sharp cutting-disks.

The especial object of this invention is to provide a guard for a cutter-disk of the kind referred to which will inclose and protect the same, so as to guard against injury to the operator, while at the same time it will not interfere with the work.

A further object of this invention is to pro-

vide a guard which can be opened to permit the grinding or sharpening of the cutter-disk. This object is accomplished by making the guard in two pieces, one part of the guard being fixed and the other part being movable, so that it can be opened to allow access to the back side of the cutter.

Referring to the accompanying drawings and in detail, as shown in Fig. 1, F designates an arm or part of the frame of a trimming-machine. The frame F is provided with clamps 10 and 11. Adjustably fastened in the clamps 10 and 11 is the bushing 12. The bushing 12 is provided with a collar 13, which is mounted in a frame which can be moved up or down by a rod having a cap or knob 14. Journaled in the bushing 12 is the cutter-shaft 15, and fastened on the lower end of the cutter-shaft 15 is the cutting-disk 16. The upper end of the cutter-shaft 15 is supported by a bearing 17, carried by an adjustable arm, and the cutter-shaft is driven by the usual belt B. Coöperating with the cutting-disk 16 is a feed-disk 18, carried by a shaft 19, which is normally forced down by a spring. At its upper end the shaft 19 is provided with a worm-wheel 20, meshing with the worm 21 on the shaft 22. The feed-disk 18 normally rests upon and coöperates with the feed-wheel 23, mounted on a shaft 24. In the use of the machine as thus constructed the stock is fed to the cutting-disk 16 between the feed-disk 18 and the wheel 23. The guard which I have provided for inclosing the cutting-disk 16 is designated by the numeral 25 and is of substantially conical or trumpet shape. This guard is fastened on the lower end of the bushing 12 and is provided with a notch or recess 26 to allow sufficient clearance so that the stock can be fed to the cutting-disk without interference. Mounted on the shaft of the trumpet-guard 25 is a ring 27, which is held in place by a retaining-collar 28, fastened by screws 29. Carried by the collar 27 is a cover-piece 30, which is secured thereto by screws 31.

It will be seen that the complete guard consists, essentially, of two parts or pieces, the movable section of which can be opened or swung to permit access to the cutter for sharpening.

Trimming-machines as thus equipped may be used with greater safety than is now the

case, and pieces of work may be trimmed thereon which can now be trimmed only with considerable danger on unprotected machines. For example, as shown in Fig. 5, 5 small triangular pieces of stock—such, for example, as the heel-piece for the upper of a shoe—can be readily trimmed while guided by the fingers of the operator and can be handled with confidence and without fear of injury. 10

I am aware that changes may be made in applying my guard to different styles of trimming-machines. I do not wish, therefore, to be limited to the construction I have herein 15 shown and described; but

What I do claim, and desire to secure by Letters Patent of the United States, is—

1. In a machine of the class described, the combination of a rotary cutting-disk, a 20 guard therefor having a circular flange covering the edge of said disk, said flange having two notches exposing the edge of the disk, and a removable cover-piece located above and normally covering one of said notches.

25 2. In a machine of the class described, the combination of a rotary cutting-disk, a shaft on which said disk is mounted, a bell-shaped guard for said cutter, the guard being provided with two notches for exposing the edge 30 of the cutter, a retaining-collar fastened to a neck projecting from said guard, a collar mounted on the neck of said guard and rotatable thereon, and a cover-piece for one of

the notches of said guard mounted on the last-named collar and rotatable therewith. 35

3. In a machine of the class described, the combination of a cutting-disk, a two-part bell-shaped guard inclosing the cutting-disk, one part of said guard having a notch in its periphery to permit work to be presented to 40 the cutting-disk, and the other part of the guard being movable, whereby the guard can be opened to permit the disk to be sharpened.

4. In a machine of the class described, the combination of the frame, a bushing adjust- 45 ably clamped in the frame, a cutter-shaft journaled in the bushing, a cutting-disk on the cutter-shaft, guiding devices for presenting work to the cutting-disk, comprising a feed-disk and wheel, and a two-part bell- 50 shaped guard inclosing the cutting-disk, one part of said bell-shaped guard being fastened to the bushing, and having a notch permitting work to be presented to the cutting-disk, and the other part of said guard being ro- 55 tatably mounted to permit the guard being opened so that the cutting-disk may be sharpened.

In testimony whereof I have hereunto set my hand in the presence of two subscribing 60 witnesses.

LIONEL B. LEGGE.

Witnesses:

PHILIP W. SOUTHGATE,
MARY E. REGAN.