Nov. 24, 1925. 1,563,294

A. SATTEL

FACING APPARATUS

Original Filed Feb. 27, 1922

Fig. 1.

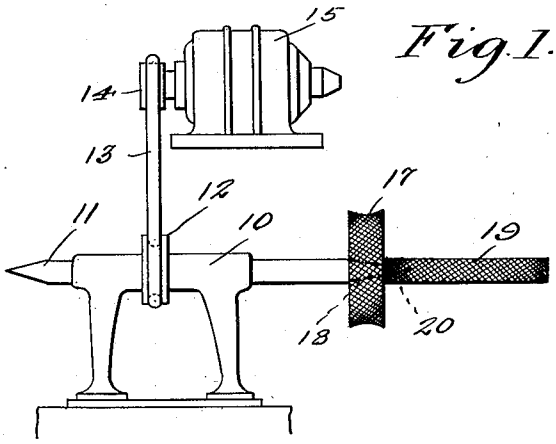


Fig. 2.

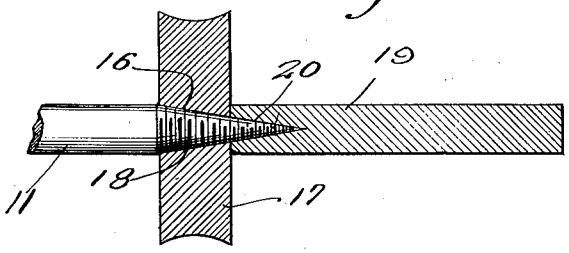


Fig. 3.

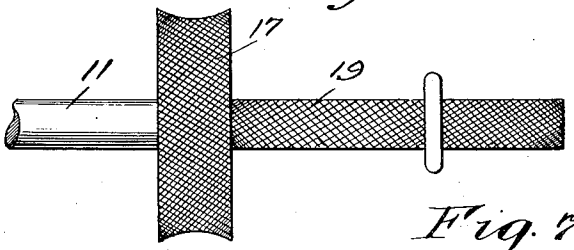


Fig. 4.

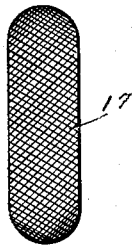


Fig. 5.

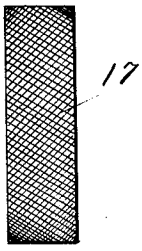


Fig. 6.

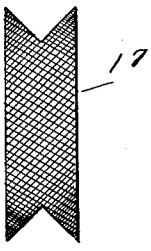
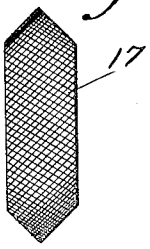


Fig. 7.



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WITNESS

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ATTORNEY

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UNITED STATES PATENT OFFICE.

ALVIN SATTEL, OF JOHNSTOWN, PENNSYLVANIA.

FACING APPARATUS.

Application filed February 27, 1922, Serial No. 539,601. Renewed September 4, 1925.

To all whom it may concern:

Be it known that I, ALVIN SATTEL, a citizen of the United States, residing at Johnstown, in the county of Cambria and State of Pennsylvania, have invented new and useful Improvements in Facing Apparatus, of which the following is a specification.

This invention relates to devices designed for use by jewelers and others, particularly to facing apparatus, and has for its object the provision of a novel facing mechanism designed for use in dressing and shaping finger rings during their process of manufacture whereby to avoid the laborious manual labor involved in filing the rings by hand which is the ordinary method.

An important object is the provision of a mechanism which includes a lathe or rotary spindle with which is associated a rotary facing element capable of grinding the external surface of a finger ring to any desired cross sectional shape and also for facing the interior of the ring whereby to give it proper shape.

Still another object is the provision of a facing mechanism of this character which includes the provision of a plurality of interchangeable facing disks having their peripheries of various shape so that a ring may be dressed to any shape desired.

An additional object is the provision of a device of this character which will be extremely simple and inexpensive in manufacture, highly efficient in use, a great time and labor saver, durable in surface, and a general improvement in the art.

With the above and other objects and advantages in view, the invention consists in the details of construction to be hereinafter more fully described and claimed, and illustrated in the accompanying drawings, in which:—

Figure 1 is a side elevation of a lathe showing a drive motor associated therewith and illustrating my facing tool applied.

Figure 2 is a longitudinal sectional view through my facing device and showing it associated with the spindle of the lathe.

Figure 3 is a somewhat diagrammatic view illustrating the dressing of a ring,

Figure 4 is a side elevation of a modified disk having a convex active surface,

Figure 5 is an edge view of a disk having a flat active face,

Figure 6 is a similar view of a disk having a grooved active face, and

Figure 7 is an edge view of still another wheel having a V-shaped active face.

Referring more particularly to the drawings, the numeral 10 designates a lathe including the usual rotary spindle 11 upon which is mounted a pulley 12 driven by a belt 13 which is trained about the pulley 14 of a suitable motor 15. The lathe here illustrated is of the type commonly used by jewelers and is naturally of a very light construction. One end of the spindle is threaded as shown at 16.

Adapted for engagement upon the threaded end of the spindle are disks 17 which are all similar in construction except that they have peripheries of different shapes depending upon the shape of the surface desired to be ground. Each disk is formed with a central threaded hole 18 for engagement upon the threaded end of the lathe spindle and furthermore each disk has its periphery, regardless of the shape thereof, formed in exactly the same manner as a file. These disks, regardless of which is used are for the purpose of working upon the outside surface of a finger ring or other suitable or similar device to be dressed.

In order to work upon the inside surface of the ring or other article, I make use of an elongated facing element 19 which is designed to be screwed upon the threaded end of the spindle subsequent to the engagement of the disk thereon. This elongated member 19 is likewise formed in exactly the same manner as a file and has one end formed with a threaded socket 20 receiving the threaded end of the spindle.

In Figure 3 I have illustrated somewhat diagrammatically the use of the device. In the operation it will be apparent that when the spindle 11 will be rotated by means of the motor and the belt and pulley connection, the disk and elongated tool will both be rapidly rotated. In order to face the outside surface of a ring it is merely necessary that the operator or workman hold the ring and bring its periphery into engagement with the periphery of the disk which is used. Of course the surface left by the tool will depend entirely upon which disk is used and it is apparent that I have provided a plurality of disks having peripheries of different shapes whereby to effect different dress-

ings. In dressing out the inside of a ring it will be apparent that the ring is slid over the elongated member 19 so that the latter will work upon and face the inside surface of the ring or other article to be treated.

From the foregoing description and a study of the drawings it will be apparent that I have thus provided a very simply constructed and consequently inexpensive facing device which will be a great time and labor saver as it provides power driven means for actually filing rings and other articles to the desired shape instead of this work being done by hand which is very laborious and tedious. It will be apparent that my device is a distinct improvement over any attempt to use an emery wheel or the like as the emery wheels and stones do not leave the proper surface upon the jewelry whereas the file structure which I employ leaves the work with a perfectly finished surface.

While I have shown and described the preferred embodiment of the invention, it is of course to be understood that I reserve the right to make such changes in the form, construction and arrangement of parts as will not depart from the spirit of the invention or the scope of the subjoined claim.

Having thus described my invention what I claim is:—

A facing apparatus of the character described comprising a lathe including a power driven spindle having one end threaded, in combination with a disk having a central threaded hole adapted to be screwed upon said threaded end of the spindle with the spindle projecting beyond the disk, the disk having a periphery formed as a file, and an elongated facing member likewise having a file formation and provided in one end with a threaded socket adapted to be engaged upon said threaded end of the spindle subsequent to the engagement of the disk thereon.

In testimony whereof I affix my signature.

DR. ALVIN SATTEL.