No. 722,843. PATENTED MAR. 17, 1903.

W. HÖPFLINGER.

MACHINE FOR CUTTING IRON BARS OR TUBES

APPLICATION FILED FEB. 5, 1902.

NO MODEL.

Fig. 1.

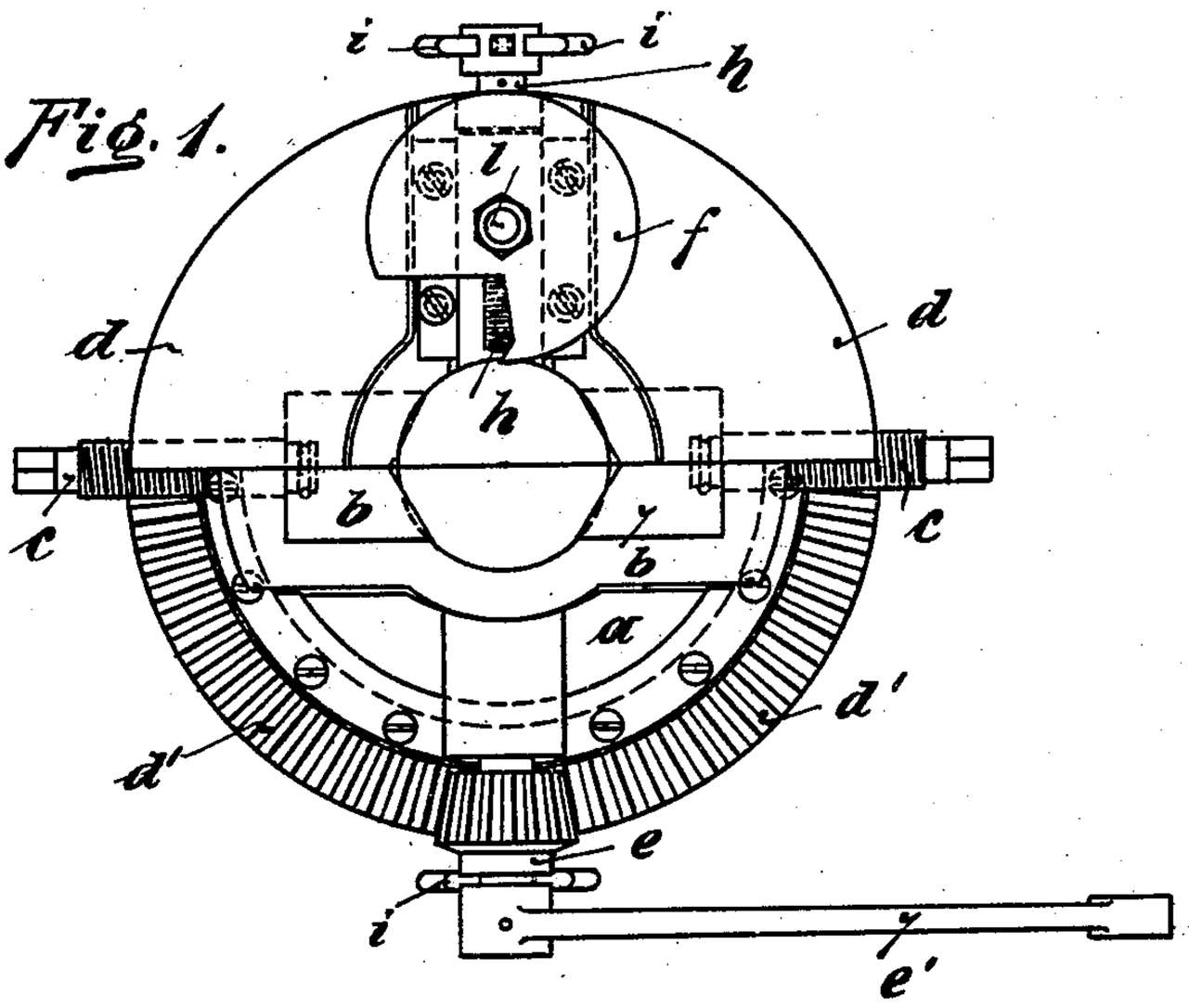


Fig. 2.

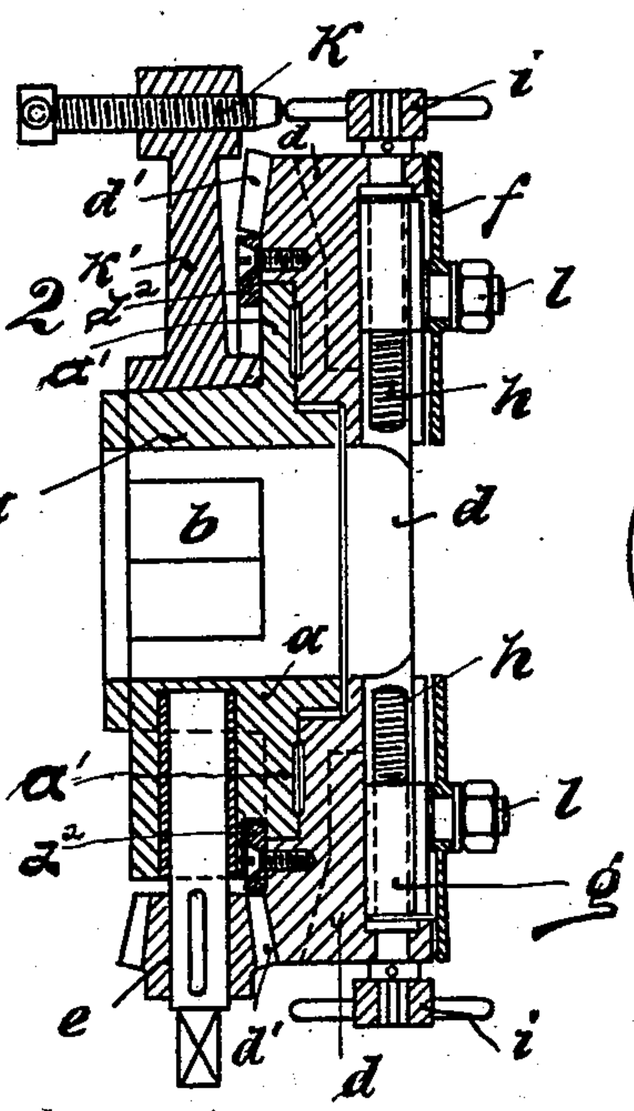
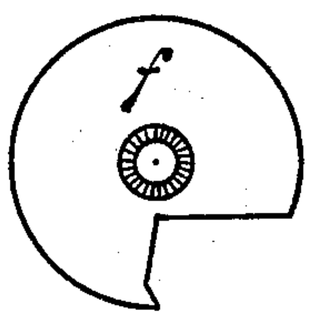


Fig. 3.



Witnesses:
K. E. Pritchett.
P. A. Lewis

Inventor:
Wilhelm Höpflinger
By
J. B. Singer.

UNITED STATES PATENT OFFICE.

WILHELM HÖPFLINGER, OF SCHWEINFURT, GERMANY.

MACHINE FOR CUTTING IRON BARS OR TUBES.

SPECIFICATION forming part of Letters Patent No. 722,843, dated March 17, 1903.

Application filed February 5, 1902. Serial No. 92,676. (No model.)

To all whom it may concern:

Be it known that I, WILHELM HÖPFLINGER, director of the Deutsche Gusstahlkugel & Maschinenfabrik A. G., Schweinfurt-on-the-Main, a subject of the German Emperor, and a resident of No. 6 Cramerstrasse, Schweinfurt, Bavaria, Germany, have invented certain new and useful Improvements in Engines for Cutting Iron Bars or Tubes; 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 an improved engine for cutting metallic bars, rods, tubes, and the like, preferably such as iron, the object of my invention being to construct an engine having an immovable case and a rotating disk thereon, the latter furnished with disk-shaped cutters diametrically arranged thereon and automatically approached to the bar or tube which is to be cut.

Such being the object and nature of my invention, the following is a full description of the same with reference to the drawings, in which—

Figure 1 shows elevation of, and Fig. 2 a cross-sectional view of my improved engine. Fig. 3 is a detail of one of the cutters.

a is an immovable case having cheeks *b*, moved by spindles *c* and being to seize and fix between them the bar to be cut. Supported by the said case and rotating thereon is a second disk *d*, having on its back a toothed wheel *d'*, driven by means of a conical pinion *e*, by a hand-lever *e'*, or by machine-power. This disk is prevented from lateral displacement by means of the annular ring d^2, which is detachably secured thereto and bears against the inner face of the annular shoulder *a'*, formed integral with the said immovable case. On the front of the disk *d* are two disk-shaped cutters *f*, fixed to supports *g*, which are movable on spindles *h* in order continually to approach the cutters toward the centric bore of the case receiving the cut bar. The spindles *h* are furnished on their outer ends with a star-wheel *i*, the arms of which touch the end of a screwed bolt *k* in a support *k'* of the immovable case *a*.

The cutters *f*, having disk shapes, may be displaced by screws *l* in order easily to be drawn, and are of a less forte near the center than at its peripheries with respect to a good cutting.

The action of my improved engine is as follows: The bar or tube to be cut is set into the centric bore of the immovable case *a* and fixed in the cheeks *b* by means of the spindles *c*. Then the disk *d* is rotated by the lever *e'*, pinion *e*, and toothed wheel *d'*. The wheel *i* rotates with the disk *d* and will strike in its way against the ends of the bolts *k*, respectively put therebefore. This contact turns the wheel *i* for a little part, whereby the spindles *h* move the supports inward, thus approaching the cutters to the bar in the bore of *a*. The next contact touching another of the arms of *i* also turns the spindles *h* for a part and moves the supports *g*, and in this manner the cutters continually are approached to the bar.

Having now described my invention, what I claim is—

In a device of the character described, the combination with the stationary hollow case formed with an annular shoulder, of a toothed disk rotatably mounted on the end of the said case, an annular ring secured to the said disk and extending in front of the said annular shoulder of the case, a pinion engaging said disk, a pair of diametrically arranged rotatable spindles carried by the said disk, star-wheels secured to the outer ends of the said spindles, adjustable projection carried by the said case, said projection being adapted to be engaged by the star-wheels during the rotation of the said disk, supports carrying cutters mounted on the said spindles, and laterally-adjustable gripping devices mounted in the said case, and adapted to project into the interior thereof, substantially as described.

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

WILHELM HÖPFLINGER.

Witnesses:
ALEX. WIELE,
KASPAR GEISS.