

(No Model.)

J. MARTIGNONI.  
CUTTER AND CUTTER HOLDER.

No. 495,256.

Patented Apr. 11, 1893.

Fig:1.

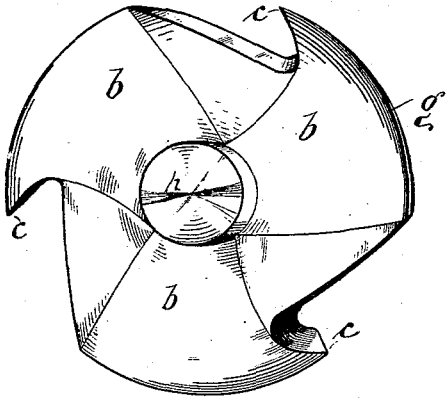


Fig:2.

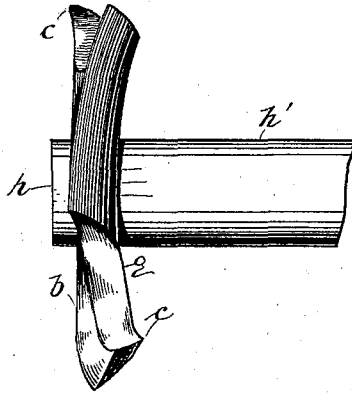
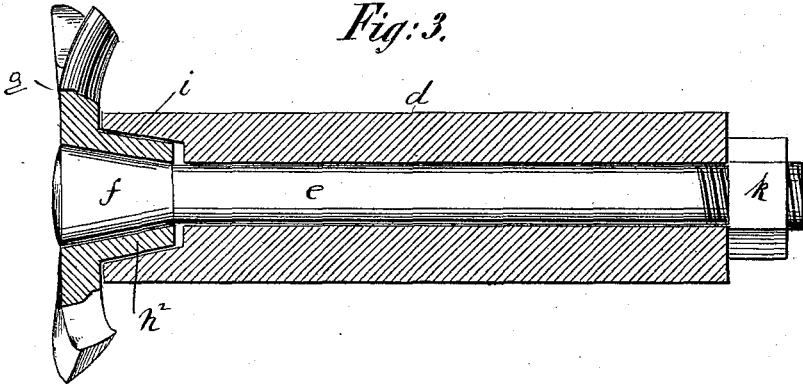


Fig:3.



WITNESSES:

*Charles Schroeder.*  
*William Tichm*

INVENTOR

*J. Martignoni*  
BY *Goepel Paegener*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

JOHANN MARTIGNONI, OF FRANKFORT-ON-THE-MAIN, GERMANY, ASSIGNOR  
TO CARL BERLE, OF SAME PLACE.

## CUTTER AND CUTTER-HOLDER.

SPECIFICATION forming part of Letters Patent No. 495,256, dated April 11, 1893.

Application filed October 29, 1890. Serial No. 369,673. (No model.) Patented in Germany December 9, 1888, No. 48,470; in Belgium December 11, 1888, No. 84,301; in France January 29, 1889, No. 191,017; in Austria-Hungary August 27, 1889, No. 13,374; in Switzerland October 19, 1889, No. 44; in England December 14, 1889, No. 20,152, and in Italy May 3, 1890, No. 27,278.

To all whom it may concern:

Be it known that I, JOHANN MARTIGNONI, a subject of the King of Prussia, residing at the city of Frankfort-on-the-Main, in the Kingdom of Prussia, Germany, have invented certain new and useful Improvements in Cutters and Cutter-Holders, (for which Letters Patent were granted in Germany, with my consent, to Carl Berle, No. 48,470, dated December 9, 1888; in Austria-Hungary, No. 13,374, dated August 27, 1889; in France, amendment to Patent No. 191,017, dated January 29, 1889; in Belgium, amendment to Patent No. 84,301, dated December 11, 1888; in Italy No. 27,278, dated May 3, 1890; in England, No. 20,152, dated December 14, 1889, and in Switzerland, amendment to Patent No. 44, dated October 19, 1889;) and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is to provide a new and improved tool for cutting, boring, milling, &c.

The invention consists in a cutting disk provided with a hub, which disk is divided into a series of sector-shaped sections having different inclinations to the longitudinal axis of the hub, said sector-shaped sections each having a cutting edge formed at the end of the rim parts.

In the accompanying drawings, Figure 1 is a perspective front view of my improved cutting, milling and boring tool. Fig. 2 is a side view of the same. Fig. 3 is a sectional view of the same, showing it provided with a hollow hub held in the holder.

Similar letters of reference indicate corresponding parts.

The implement consists of a disk *g* having a central hub *h*, which disk is divided into a series of approximately sector-shaped sections *b*, at one end of the outer rim of each of which a cutting edge *c* is formed. Said sector-shaped sections are all arranged at slightly different inclinations to the longitudinal axis of the hub *h*, so as to have the face of the disk the appearance of a propeller screw and to adapt the device to make a number of different cuts. The instrument can easily be

adjusted in its holder without requiring the removal of the same from the holder, to make any of the desired cuts. As shown in Figs. 1 and 2, it is provided with a solid stem *h'*. As the different work is to be done the different cutting edges are used; for example, one cutting edge would be used in cutting through thread, another for planing, another for fine planing, another for milling, &c. All that is necessary with this instrument for performing these different operations is merely to turn the cutter until the edge is in the proper position for cutting and then to fasten the cutting disk in this position. A complete interchange of the cutting-teeth as was necessary heretofore is not necessary and thus much time and labor are saved. As shown in Fig. 3, the disk *g* is adapted to be held on the end of a sleeve or tubular holder *d* provided with a tapering recess *i* for receiving the tapering or conical hub *h*<sup>2</sup> of said disk. A screw-bolt *e* is provided at one end with a tapering head *f* fitting in the bore of the hub *h*, and on the opposite end of said bolt the nut *k* is screwed. By drawing up said nut the tapering head *f* draws the hub *h* into the recess *i*, whereby it is held securely on the holder or sleeve *d*. The holder can be fastened in a slide rest of a lathe or boring machine, the cutting disk acting by means of its cutting edges or teeth the same as an ordinary boring tool.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A cutting disk provided on its face with one or more sector-shaped sections, each having an inclination to the axis of the disk, the inclinations being different from each other, thus giving the face of the disk a curvature approximately to that of a propeller screw, and a cutting edge being formed on the rim of the disk for each section, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JOHANN MARTIGNONI.

Witnesses:

FRIEDRICH VON ROESSLER,  
HEINRICH WÜST.