

C. KRUG.  
ABRADING DISK.  
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1,082,202.

Patented Dec. 23, 1913.

*Fig. 1.*

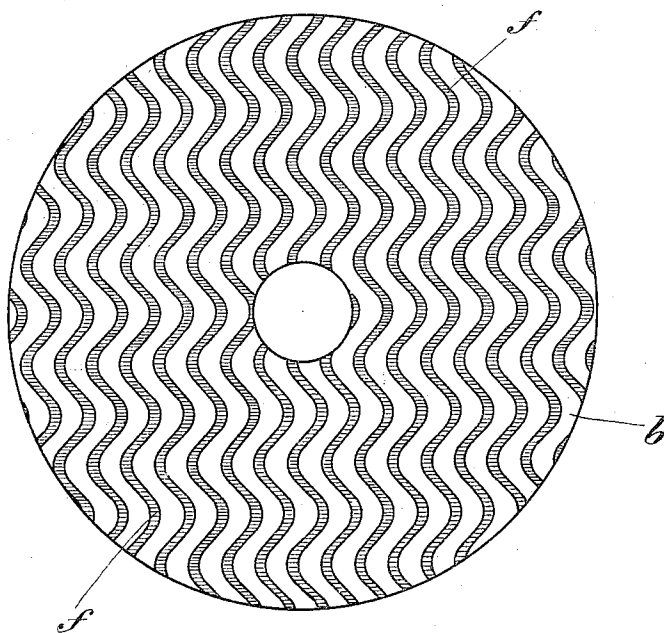
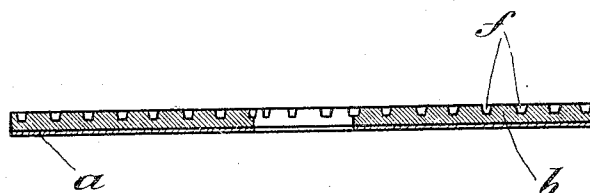


*Fig. 2.*

Witnesses:  
H. C. Hunsbarger  
M. W. Roche

Inventor:  
Carl Krug  
by C. P. Singer  
Atty

# UNITED STATES PATENT OFFICE.

CARL KRUG, OF FRANKFORT-ON-THE-MAIN, GERMANY.

## ABRADING-DISK.

1,082,202.

Specification of Letters Patent.

Patented Dec. 23, 1913.

Application filed March 27, 1913. Serial No. 757,124.

*To all whom it may concern:*

Be it known that I, CARL KRUG, a subject of the German Emperor, and resident of Frankfort-on-the-Main, Mainkur, Germany, have invented a certain new and useful Improvement in Abrading-Disks; of which the following is a specification.

Abrading disks for treating plane surfaces, particularly those of metal articles in which the flat surface of the disk is utilized and in which said surface is provided with grooves for the reception and removal of the resulting dust, chips and the like, are known. These known abrading disks may be divided into three classes. One class is provided with separate abrading elements located adjacent one another and forming between them spaces for the reception of the dust, chips and the like. This class of disk has the disadvantage that the abrading elements are not sufficiently strong to withstand the pressure. The second known class of abrading disk has grooves traversing the abrading surface, said grooves being bounded by rectilinear edges. It has been found with this class that the abrading members between the grooves break off comparatively easily. The third class of abrading disk has an arrangement of concentric or spiral grooves of sinuous or zigzag form. These grooves, however, are very liable to become choked with the dust, chips and the like removed. In contradistinction to these known classes of abrading disks the abrading disk in accordance with the pres-

ent invention is provided with sinuous or zigzag grooves which traverse the abrading surface after the manner of parallel chords. This improved abrading disk is of much higher efficiency than disks of the classes referred to.

One embodiment of the improved disk is illustrated in the accompanying drawing in Figure 1 in plan and in Fig. 2 in section.

In the drawings *a* denotes a support of fabric or fiber for the abrading medium *b* which consists for example of emery, corundum, carborundum or the like formed into a solid body by means of a suitable binding agent. In the abrading medium *b* are formed sinuous or zigzag grooves *f* arranged after the manner of parallel chords.

Having described my invention, I declare that what I claim and desire to secure by Letters Patent of the United States is:—

In an abrading disk of the character described parallel; sinuous ribs of abrading material of uniform width throughout their length, traversing the abrading surface in the manner of chords forming grooves for the removal of the refuse, substantially as described.

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

CARL KRUG.

Witnesses:

JEAN GRUND,  
CARL GRUND.