

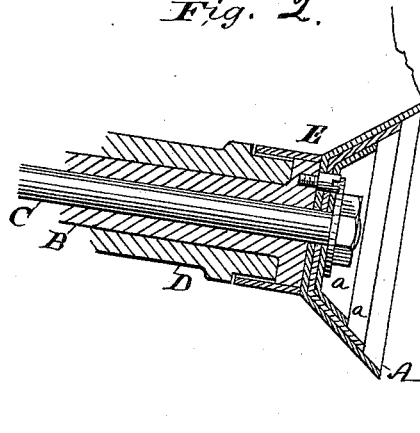
(No Model.)

F. TRIER.  
CUTTER FOR DRESSING STONE.

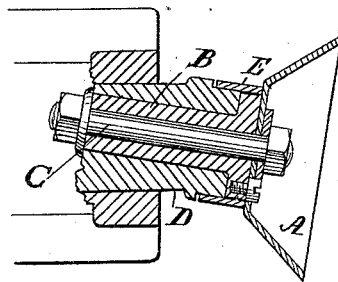
No. 302,801.

Patented July 29, 1884.

*Fig. 2.*



*Fig. 1.*



Witnesses:

J. C. Brecht  
G. S. Rafter

Inventor:

Frank. Trier  
E. W. Ginsabaugh  
Attorney.

# UNITED STATES PATENT OFFICE.

FRANK TRIER, OF WESTMINSTER, COUNTY OF MIDDLESEX, ENGLAND.

## CUTTER FOR DRESSING STONE.

SPECIFICATION forming part of Letters Patent No. 302,801, dated July 29, 1884.

Application filed April 5, 1884. (No model.) Patented in England January 20, 1883, No. 341.

### *To all whom it may concern:*

Be it known that I, FRANK TRIER, a subject of the Queen of Great Britain, residing at Westminster, England, have invented certain new and useful Improvements in Cutters for Dressing Stone, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to the construction of cutters for dressing stone and other material, (for which I have obtained Letters Patent in England, No. 341, dated January 20, 1883,) this application being a division of application No. 103,360, filed October 18, 1883.

The object of my invention is to produce cutters, for dressing stone, of thin cones of steel or similar material, which will be self-sharpening and have at all times a dressing or cutting edge.

My invention consists of a cone-shaped cutter made of thin sheets of steel struck up to the proper shape and strengthened by internal or external pieces, as will more fully appear.

Figure 1 is a sectional view of one of the cone-shaped cutters secured to a cutter-holder, so as to revolve when brought in contact with the revolving or moving surface of the stone. Fig. 2 is a sectional view showing the cutter strengthened by cone-shaped filling-pieces.

Referring to the drawings, A are the conical cutters, stamped out of thin sheets of steel or other suitable metal. These cutters are made as thin as the nature of the work they have to do will allow, and in dressing some kinds of stone they can be made so thin that notwithstanding the wear they constantly remain serviceably sharp. These cutters are secured to the cutter-carrying spindles B by means of the bolt C, said spindles being secured in a holder, D, so that when the cutters are brought in contact with the traveling surface of the stone to be dressed that the cutters or cutters and spindles will be free to rotate by reason of the impingement of the cutter on the traveling or rotating stone. In order to strengthen such thin cutters and prevent them from bending

when brought in contact with the stone, I use a series of smaller metal cones, *a*, fitting within the cutter and within each other, the whole being secured to the spindle B within the holder D by means of the bolt C, which passes through the center of the cutter, and also through the strengthening-cones, as above indicated.

Instead of using the metal cones for strengthening the cutters, as heretofore described, a conical piece of suitable material may be secured within the cutters, so as not to fill up to the cutting-edge of the cutter, and these pieces may be replaced by smaller filling-pieces as the cutter wears away. I may also stiffen the thin cutters by cone-shaped disks or plates *a*, placed on the outside of the cutters instead of on the inside, as shown in Fig. 2.

E is a band of metal or other suitable material, placed around the bushing or spindle to prevent the grit from entering and wearing the parts.

Cutters constructed according to this invention are easily and cheaply manufactured, and are found by actual experiment to give better results and a finer finish to certain kinds of stone than the heavy thick cone-shaped cutters heretofore used.

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

A self-rotating disk cutter for dressing stone, consisting of a hollow cone of sheet metal or other material mounted on a suitable support, and provided with a series of strengthening-cones, the same consisting of hollow cones fitting one within the other and within the cutting-cone, as set forth.

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

FRANK TRIER.

Witnesses:

J. EDW. BEESLEY,

EDMUND S. SNEWIN,

Both of 2 Pope's Head Alley, Cornhill, London, Gentlemen.