H. M. CHURCH.

METHOD OF HANGING GRINDSTONES.

No. 107,002. Patented Sept. 6, 1870.

Fig. 1.

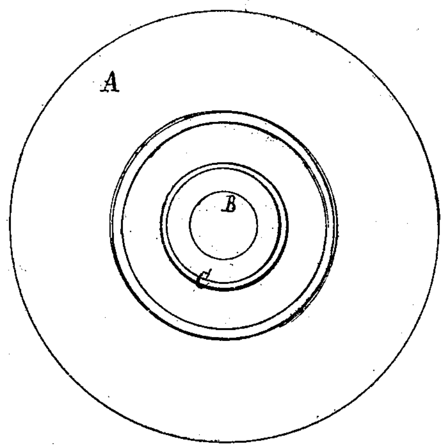


Fig. 2.

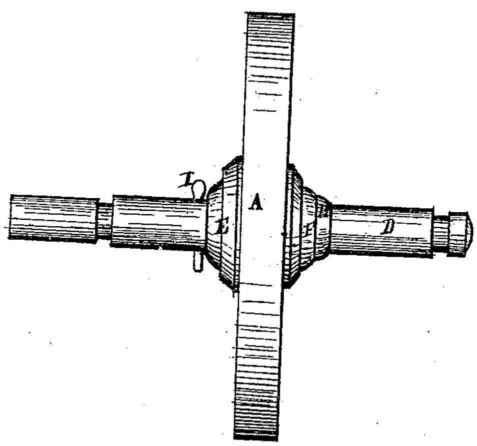


Fig. 3.

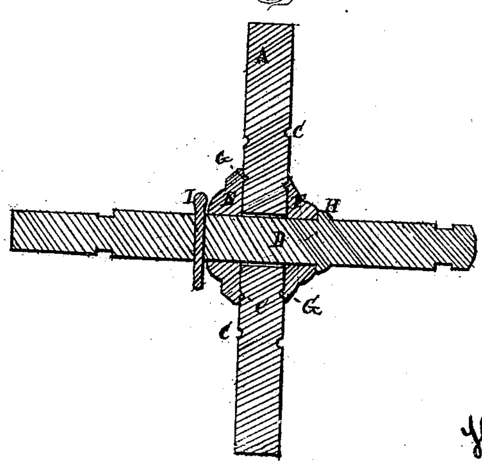
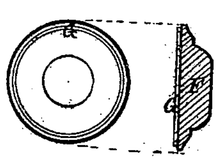


Fig. 4.



Witnesses.
J. H. Burridge
W. D. Humphrey

Inventor.
H. M. Church

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

United States Patent Office.

HENRY M. CHURCH, OF BRUNSWICK, OHIO.

Letters Patent No. 107,002, *dated September* 6, 1870.

IMPROVEMENT IN METHOD OF HANGING GRINDSTONES.

The Schedule referred to in these Letters Patent and making part of the same.

Be it known that I, HENRY M. CHURCH, of Brunswick, in the county of Medina and State of Ohio, have invented certain new and useful Improvements in the Method of Hanging Grindstones, of which the following is a description.

Figure 1 is a side view of the grindstone.

Figure 2, an edge view of the stone when hung.

Figure 3, a transverse section.

Figure 4, a detached section.

Like letters of reference refer to like parts in the different views.

This invention relates to a method of hanging grindstones to the shaft by the use of a pair of collars, having on their face a circular rib, which is made to fit into a corresponding groove in the stone, as hereinafter more fully described.

In fig. 1—

A represents a grindstone, which is, or may be, of the ordinary shape and size.

On each side of said stone, concentric with the eye, B, thereof, is cut a continuous groove, C, the diameter of which being more or less, according to the size of the stone.

D is the shaft on which the stone is hung, and to which is fitted a pair of collars, E F, one of which, F, may be secured in a rigid manner to the shaft, whereas the other, E, is fitted loosely thereon, so that it can be moved upon the shaft for a purpose presently shown.

In the face of each collar, concentric with the hole therein, is formed a continuous rib, G, the size and diameter of which being such as to exactly fit into the groove C, cut in the sides of the stone, and into which they are received, as shown in the transverse section, fig. 3, in which—

D is the shaft;

A, the stone; and

C G, the grooves and ribs.

The collar F is fixed to the shaft, or it may not be retained thereon by the collar H, against which it abuts, as represented in the drawing.

The stone, as will be observed, is placed next to the collar, and so adjusted that the groove in the stone and the rib will fit together. The collar E is now slipped on the shaft, and adjusted to the stone. The rib and groove are, in like manner, approximated.

The collar is secured in place by a key, I, or by means of a nut fitted to the shaft.

It will be obvious that, by this device, the stone is hung upon the shaft as truly as when upon the mandrel on which it was turned, and at which time the grooves were cut around the eye; hence it can make no difference whether the shaft D fills the eye of the stone or not, as it is supported by the continuous ribs of the collars fitting in the corresponding grooves in the sides of the stone; therefore, no keys or wedges are required to secure it to the shaft, and true it thereon, as is necessary when hung in the ordinary way.

By this device the stone can be hung in much less time, truer, and in a more permanent manner than it can be by keying it to the shaft, as is usually practiced. It is also safer, as there is exerted no strain upon the eye of the stone in consequence of driving in keys in order to secure it to the shaft.

Claim.

What I claim as my improvement, and desire to secure by Letters Patent, is—

The collars E F, when provided with continuous concentric ribs, G, in combination with the stone A, provided with concentric grooves C and shaft D, substantially as described, and for the purpose set forth.

HENRY M. CHURCH.

Witnesses:

J. W. THOMPSON,

JAMES A. ROOT.