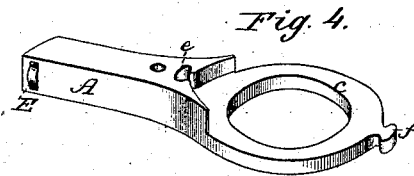
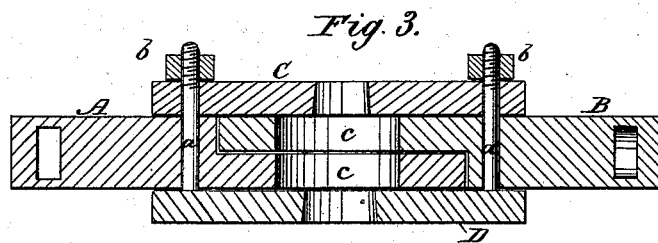
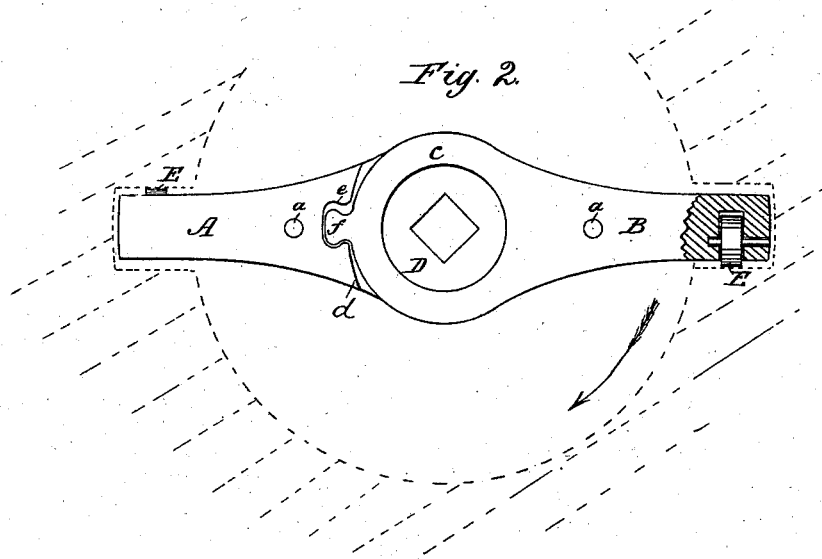
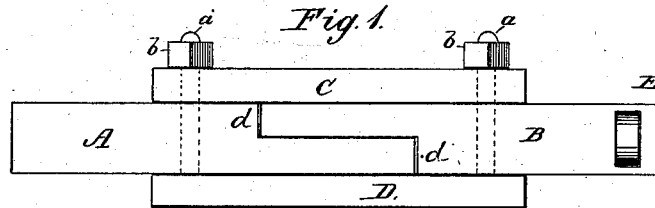


W. J. BLACKWELL.
Millstone-Driver.

No. 216,824.

Patented June 24, 1879.



WITNESSES:

W. W. Hollingsworth
E. W. Byrne

INVENTOR:

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UNITED STATES PATENT OFFICE.

WILLIAM J. BLACKWELL, OF WAYNESBOROUGH, VIRGINIA, ASSIGNOR TO
WILLIAM BLACKWELL, OF SAME PLACE.

IMPROVEMENT IN MILLSTONE-DRIVERS.

Specification forming part of Letters Patent No. **216,824**, dated June 24, 1879; application filed
March 24, 1879.

To all whom it may concern:

Be it known that I, WILLIAM J. BLACKWELL, of Waynesborough, in the county of Augusta and State of Virginia, have invented a new and Improved Millstone-Driver; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view. Fig. 2 is a plan, showing in dotted lines the relation of the driver to the eye of the stone. Fig. 3 is a vertical longitudinal section. Fig. 4 is a perspective of one of the sections of the driver.

My invention is an improvement in that class of millstone-drivers which are made in pivoted sections with a jointed connection between the inner ends of the same to cause both ends of the driver to bear equally against the stone. It sometimes happens with the old form of rigid driver that from wear or other causes the said driver will have a bearing contact only at one end, and this throws the stone out of a true-running position. The sectional driver compensates for this difficulty by making the bearing contact at one end of the driver throw the other end of the jointed section up to bearing contact with the stone on the other side, and drive the stone from both sides of the spindle.

My improvement consists in forming the inner ends of both sections of the driver with an eye that encircles the spindle, and in connecting the lapped ends of such sections by lugs and recesses, which cause the two sections to act in unison.

In the drawings, A B represent the two sections of a millstone-driver constructed in accordance with my invention, and contained between an upper removable plate, C, and a lower plate, D, having upwardly-projecting stems *a*. These stems *a* pass through holes in the sections of the driver, so as to form pivots or fulera for the said sections, and at their upper ends are screw-threads to receive nuts *b*, that secure the top plate, C.

Now, in constructing the two sections of the driver, they are formed exactly alike, with an eye, *c*, at their inner ends, which eyes are made of one-half the thickness of the outer

portion of the driver, and are lapped, as shown, so that both shall be concentric with the spindle and with each other.

In the curved shoulder *d* of each section of the driver, against which the eye of the other section fits, I form a recess, *e*, and upon the corresponding part of the eye of the other section resting thereagainst is formed a lug, *f*, that fits loosely in the recess *e*, and couples the two sections of the driver together. This, it will be seen, permits a reverse movement for the opposite ends of the pivoted driver-sections, for if the stone is running in the direction of the arrow, and the outer end of one of the sections only bears against the stone instead of both, a deflection or swinging movement of the sections takes place on their pivotal stems, and the opposite end of the driver is advanced to bearing contact with the stone, so that the latter is driven from both sides of the spindle.

In defining this feature of my invention with greater distinctness, I would state that I am aware that the inner sections of the driver have been made forked, and that between the said forks of such sections a ring has been placed to better connect the sections; and I therefore do not claim such arrangement.

By making the inner ends of the sections of the driver in the form of an eye encircling the spindle, it will be perceived that I dispense with this ring and obtain a greater amount of space for the spindle, which adapts the driver to a greater range of variation in the size of spindles without running the risk of abrasion between the spindle and the driver-sections.

Another advantage is that I am enabled to locate the lugs and recesses in the central longitudinal line of the driver, which reduces the width of the driver at the point where it encircles the spindle.

E are friction-rollers located in the ends of the driver-sections, and arranged to form the bearing-surfaces of the driver against the stone. These rollers reduce and distribute the wear and also allow the stone to more readily regain its balance while in motion.

The construction and arrangement of the driver and its bearing-rollers, as thus described, permit it to be applied to stones run-

ning in either direction, it only being necessary to turn the sections of the driver over to change the direction of the stone.

Having thus described my invention, what I claim as new is—

The millstone-driver consisting of the pivoted sections A B, having their inner ends formed into independent eyes encircling the spindle, and loosely coupled by recesses *e* and

lugs *f*, located in the central longitudinal line of the driver, all combined and arranged substantially as and for the purpose described.

The above specification of my invention signed by me this 14th day of March, 1879.

WILLIAM J. BLACKWELL.

Witnesses:

EDW. W. BYRN,

CHAS. A. PETTIT.