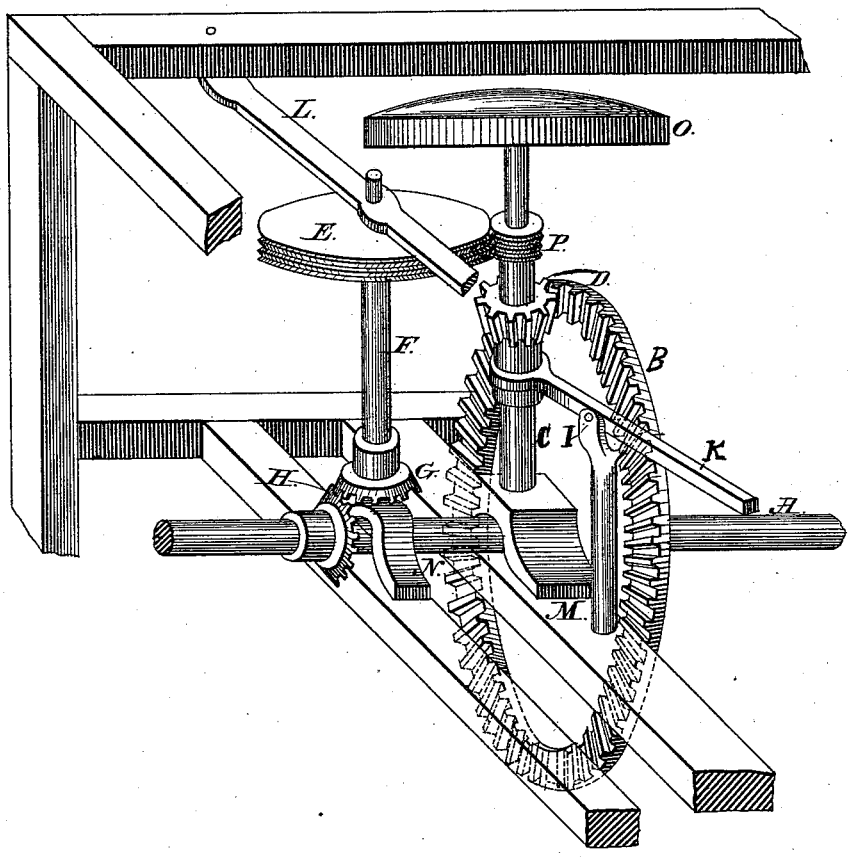
J. B. CROMWELL.

Millstone Displacing Apparatus.

No. 208,297. Patented Sept. 24, 1878.



Witnesses:

J B Smith

Chas Lavenny

Inventor:

John B Cromwell

UNITED STATES PATENT OFFICE.

JOHN B. CROMWELL, OF MILWAUKEE, WISCONSIN.

IMPROVEMENT IN MILLSTONE-DISPLACING APPARATUS.

. Specification forming part of Letters Patent No. **208,297**, dated September 24, 1878; application filed June 26, 1878.

To all whom it may concern:

Be it known that I, JOHN B. CROMWELL, of Milwaukee, in the county of Milwaukee, in the State of Wisconsin, have invented certain Improvements in Millstone-Displacing Apparatus, of which the following is a specification:

The object of my invention is to stop and dress a millstone, when a series of stones are run by gearing, by a single line-shaft, without stopping the line-shaft.

The machinery for accomplishing the object is an independent shaft with a pinion on the end of it meshing into another pinion on the line-shaft, and a friction-pulley on the upper end of the independent shaft, or on any part of it, which, when it is necessary to take off the stone, is pressed up against the shaft on which the stone runs by a lever, and the independent shaft and the shaft on which the stone runs will run with the same velocity, and then the pinion on the shaft on which the millstone runs is lifted with a lever out of gear, and after the pinion is lifted out of gear the friction-pulley is pressed back so as to be free from the millstone-shaft. The millstone-shaft, being free from any driving machinery, soon stops. When it is necessary to connect the stone again, put it on the top of the shaft and press the friction-pulley against the shaft, and the friction will revolve the shaft as fast as the line-shaft will revolve it, when the pinion on the millstone-shaft can be dropped into gear, and the friction-pulley can be pressed back and the stone go on grinding.

The figure is a perspective view of my invention.

In the drawing, A is the line-shaft; B, the cog-wheel on the line-shaft; C, the millstone-spindle; D, a pinion on the millstone-shaft meshing into wheel B on the line-shaft; E, a friction-wheel, with grooves in it, which mesh into grooves P on the millstone-shaft.

I do not confine myself to grooved friction-pulleys, but sometimes use smooth friction-pulleys covered with paper or other covering.

F is an independent shaft; G, a pinion on the foot of shaft F; H, a pinion on the line-shaft, meshing into pinion G; I, a fulcrum for lever K, with which to lift pinion D out of gear; L, a lever with which to throw friction-pulley E against the grooves in shaft C; M, a step for shaft C to run in; N, step for shaft F to run in; O, a millstone.

The operation of this device is as follows: When it is necessary to take off a stone, take hold of lever L and shove the shaft F and pulley E against spindle C, and the grooves P will take hold of pulley E and the pinion H on the line-shaft, revolving the shaft F and pulley E just as fast as the millstone-shaft revolves, so that pinion D is released from the strain of running the stone. Then take hold of lever K and lift pinion D out of gear. Then shove friction-pulley E back, and the shaft and stone will stop.

To put the stone to running again, push pulley E against the grooves on the shaft, and as soon as the spindle C is revolved as fast as wheel B moves, then pinion D can be dropped into gear, and the friction-pulley can be thrown out of contact with the millstone-spindle.

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

1. Shaft A, cog-wheel B, spindle C, and pinion D, in combination with shaft F and friction-pulley E, substantially as and for the purpose specified.

2. The mode of running a millstone by the shaft F and friction-pulley E, in combination with spindle C and shaft A, substantially as described.

JOHN B. CROMWELL.

Witnesses:
J. B. SMITH,
CHAS. LAVERREUZ.