

M. Joy,
Rock Drill Jar.
No 49,277. Patented Aug. 8, 1865.

Fig. 1

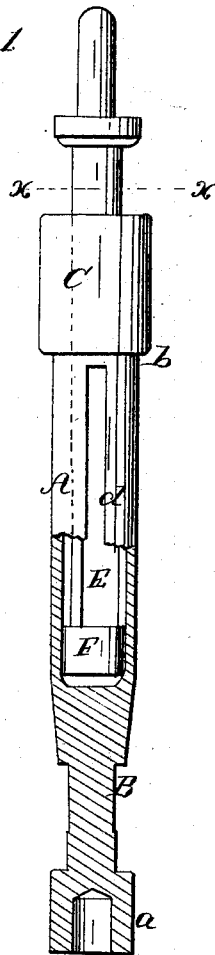
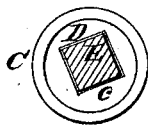


Fig. 2.



Witnesses;
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UNITED STATES PATENT OFFICE.

MILES JOY, OF WEST GREENVILLE, PENNSYLVANIA.

IMPROVEMENT IN BORING-TOOLS.

Specification forming part of Letters Patent No. **49,277**, dated August 8, 1865.

To all whom it may concern:

Be it known that I, MILES JOY, of West Greenville, in the county of Mercer and State of Pennsylvania, have invented a new and Improved Jar for Well-Boring Tools; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an elevation of my invention, partly in section; Fig. 2, a horizontal section of the same, taken in the line *xx*, Fig. 1.

Similar letters of reference indicate corresponding parts.

In boring deep wells—such, for instance, as oil-wells—a device is connected with the drill or drill-rod to admit of the drill, in case of the latter becoming fast, being subjected to a series of blows or concussions, in order to loosen it. This device, commonly termed a “jar,” is indispensable in boring deep wells, owing to the great difficulty which would be otherwise experienced in withdrawing or loosening the auger.

The ordinary jar in use is attended with some disadvantages. It is liable to get fast itself, and is subjected to considerable wear in consequence of being in contact with the grit in the wall of the well. It is also liable to break or give way when worn, and the withdrawing of it from the well is attended with considerable difficulty. These disadvantages, it is believed, are fully obviated by my invention.

My invention consists of a pipe, A, which may be a piece of gas-pipe of any suitable dimensions—say three inches in diameter and two feet in length—with a screw-plug, B, having a socket, *a*, attached, welded into its lower end. The upper end of the pipe A has a thimble, C, screwed upon and welded fast to it, the lower end of the thimble forming a shoulder,

b, for an instrument to grasp in case of a break or giving way of the parts above the pipe.

The thimble C has a steel plug, D, fitted in it, having a square hole, *c*, through it for the center rod, E, to work through, the rod E having a steel head, F, on its lower end.

By this arrangement it will be seen that the pipe A and auger or drill below it will be turned in case the rope which is attached to rod E is turned for that purpose.

The pipe A has a slot, *d*, made in it, extending nearly its whole length, to admit of the ready escape of water from the pipe, so that the former cannot interfere with the concussions produced by the falling of the rod E.

From the above description it will be seen that in the event of the auger getting fast the latter may be subjected to a series of jars or concussions by operating the rod E, said rod being raised until its head F comes in contact with the plug C, and then allowed to drop, so that the head will strike the upper end of the plug B in the lower end of pipe A.

By this arrangement all the parts are perfectly protected, and the device is consequently durable, not liable to be affected by wear or become deranged by use.

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

A jar for a well-boring apparatus, composed of a pipe, A, having a slot, *d*, in it extending nearly its whole length, a plug, B, secured in its lower end, and a thimble, C, on its upper end, containing a plug, D, having a square hole made in it for a rod, E, to work through which rod E is provided with a head, F, at its lower end, said pipe A inclosing the rod E, with its head F, and protecting it from injury, substantially as herein described.

MILES JOY.

Witnesses:

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