

F. Fahr,

Drill-Rod Grab.

N^o 53,802.

Patented Apr. 10, 1866.

Fig. 1.

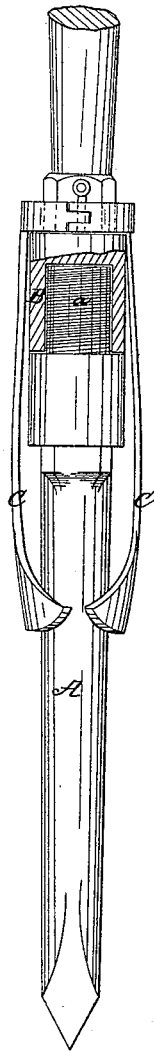


Fig. 2.

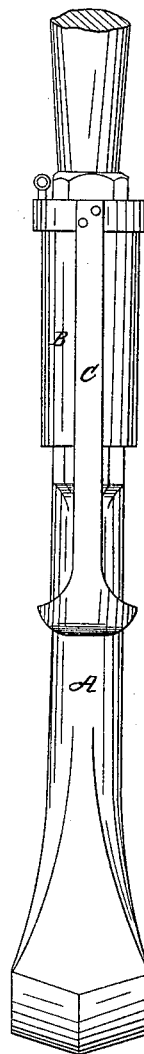
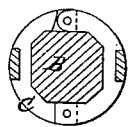


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

F. FOHR, OF ROWLESBURG, WEST VIRGINIA.

IMPROVED WELL-BORER.

Specification forming part of Letters Patent No. 53,802, dated April 10, 1866.

To all whom it may concern:

Be it known that I, F. FOHR, of Rowlesburg, in the county of Preston and State of West Virginia, have invented a new and Improved Well-Borer; 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 represents a front elevation of this invention. Fig. 2 is a side elevation of the same. Fig. 3 is a transverse vertical section of the same.

Similar letters of reference indicate corresponding parts.

This invention consists in the combination of a spring catch or clamp with the sinker and drill of a well-borer in such a manner that a double connection between the drill and sinker is obtained, and if the screw or ordinary connection breaks the drill is raised by the catch and prevented from being wedged into the hole.

A represents a drill of the ordinary kind used in boring wells. This drill is connected with the sinker B by a screw-thread, *a*, or by any other suitable means, in the ordinary manner; and besides this connection, a spring-clamp, C, is applied to the sinker which catches below the head or shoulder of the drill, and is always in position to raise the same in case the connection between the sinker and drill gives way.

With drills of the ordinary construction it happens many times that the connection be-

tween the sinker and drill breaks, and before the operator is aware of the damage several blows are struck on the drill, which is thereby driven into the rock, and sometimes wedged in so tight that it cannot be recovered, or that it takes much time and labor to loosen the same.

By my invention such accidents are avoided. If the connection between the sinker and drill breaks, the drill is raised by the action of the spring-clamp after every blow of the sinker, and it is prevented from being wedged in, even if the operator should not perceive the damage for some time. It is, however, very easy to connect with the drill a wire which is carried up to the surface, and which may be attached to a suitable alarm, so that when the connection between the drill and sinker parts the alarm is sounded and the attention of the operator is awakened.

By the application of my double connection to the sinker all danger of losing a drill is avoided, and the operation of boring can be conducted without interruption.

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

The use of a double connection between the sinker and drill, such, for instance, as the spring-clamp and screw, or any other equivalent connection, for the purposes set forth.

The above specification of my invention signed by me this 28th day of October, 1865.

F. FOHR.

Witnesses:

M. M. LIVINGSTON,
C. L. TOPLIFF.