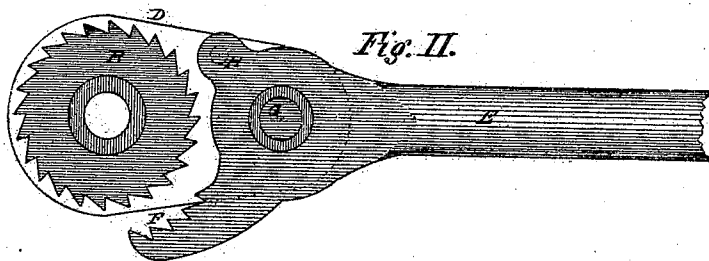
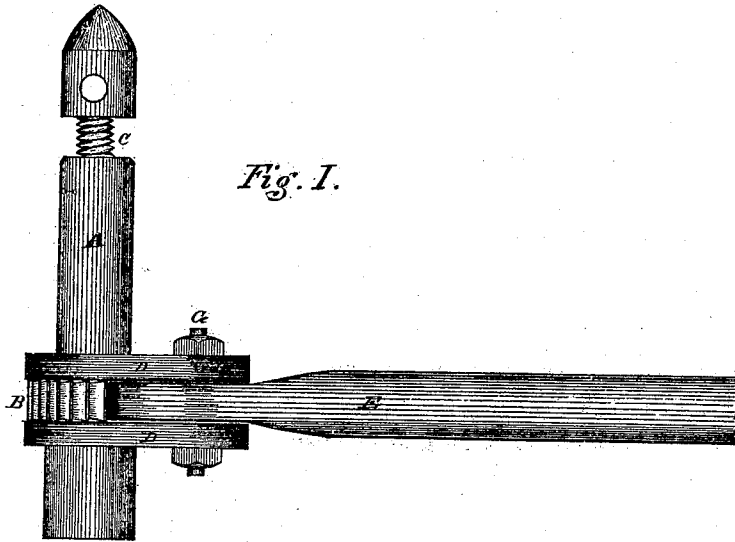


S. Ingersoll,

Ratchet Drill.

No. 104,317.

Patented June 11, 1870.



Witnesses:

*John B. Thomson -
Joseph Hoady*

Inventor:

Simon Ingersoll

UNITED STATES PATENT OFFICE.

SIMON INGERSOLL, OF BROOKLYN, NEW YORK, ASSIGNOR TO SAMUEL C. INGERSOLL, OF STAMFORD, CONNECTICUT.

IMPROVEMENT IN RATCHET-DRILLS.

Specification forming part of Letters Patent No. 104,317, dated June 14, 1870.

To all whom it may concern:

Be it known that I, SIMON INGERSOLL, of the city of Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Ratchet-Drills; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, and to the letters of reference marked thereon.

This invention relates to an improvement in ratchet-drills, and has for its object the providing a strong, durable, and effective ratchet-drill which shall be simple and cheap in its construction, not liable to get out of repair, and occupying but little space while being operated, so that it can be used in a smaller space than is required for any of the drills now in use.

The nature of this invention consists in the use or employment of two straps or stirrups, through which the socket-shaft for the drill passes, and between which is located the ratchet-wheel.

It also consists in the peculiar construction of the lever, which acts as a pawl, and in the combination of the same with the ratchet-wheel and shaft.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure I shows a side elevation of my improved ratchet-drill. Fig. II is a plan view of the same with the upper stirrup removed.

Letters of like name and kind indicate like parts in each of the figures.

A represents the shaft of the drill, on which is cast the ratchet B. Both the ratchet and shaft are cast or made of malleable iron, and the ratchet is case-hardened for the purpose of making it more durable.

C is the feed-screw, to which the pressure is applied in operating the drill.

D D are straps or stirrups, also made of malleable iron or other suitable metal, located upon the shaft A on each side of the ratchet-wheel. The straps D D receive the lever or handle E, the inner end of which is a serrated curve, the serrations being made to correspond and fit in the wheel B, as plainly shown at F in Fig. 2.

G is a screw-bolt that secures the handle of the drill between the straps and serves as a fulcrum for the said handle or lever.

H is a stop-pin, located in the lower strap, that fits in a corresponding hole or socket in the handle. The object of this is to carry the straps with the lever, when it is thrown back, to obtain a fresh hold upon the ratchet, and to prevent the back portion of the handle or lever from engaging with the wheel when working the drill.

I am aware that the several parts of the device herein described, as well as the combination of them, is not new, and I therefore make no claim to either; but

I do claim what I regard as an improvement in the construction of this device, to wit:

Constructing the shaft A and ratchet-wheel B in one piece, and constructing the handle E and the pawl in one piece, and constructing in said pawl a series of teeth, as shown at F, to engage with a corresponding series of the teeth on the ratchet-wheel, all as herein shown and described.

SIMON INGERSOLL.

Witnesses:

JOHN S. THORNTON,
JOSEPH N. COADY.