A. GODDARD.

REAMER.

No. 190,307. Patented May 1, 1877.

FIG. 1.

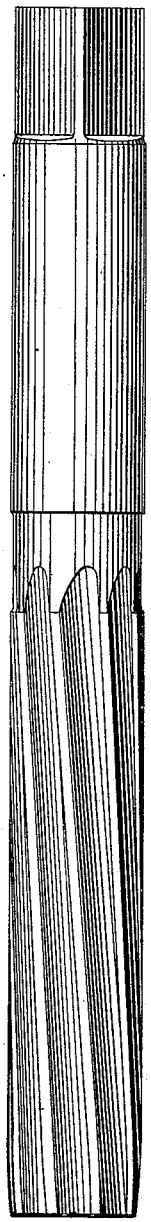
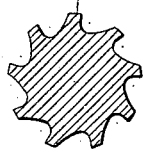


FIG. 2.



WITNESSES:

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INVENTOR.

UNITED STATES PATENT OFFICE.

ALFRED GODDARD, OF ESSEX, CONNECTICUT, ASSIGNOR OF ONE-HALF HIS RIGHT TO E. A. GODDARD, OF NEW YORK CITY.

IMPROVEMENT IN REAMERS.

Specification forming part of Letters Patent No. **190,307**, dated May 1, 1877; application filed February 5, 1877.

To all whom it may concern:

Be it known that I, ALFRED GODDARD, of Essex, in the county of Middlesex and State of Connecticut, have invented a new and useful Improvement in Reamers, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

This invention pertains to the class of articles used in shops for reaming or smoothing holes in metals after they have been formed by a drill; and the invention consists in a reaming-tool having the bit portion constructed of a series of longitudinal projections or ribs starting from the body of the stock, and extending, with a spiral inclination from the right toward the left, to the end of the same, the right salient angles of said ribs, severally, being the cutting angles, as will more fully hereinafter appear.

Figure 1 represents an exterior view of the tool as completed, and Fig. 2 a transverse section.

It is well known to mechanics that in the use of reamers it is exceedingly difficult to prevent them from "drawing," as it is termed, or cutting more in some places than others, and that one of the most difficult operations is to produce a perfectly smooth and true hole in a piece of metal.

My reamer has its bit portion constructed with a series of longitudinal projections or ribs, starting from the body of the stock, and extending, with a spiral inclination from the right to the left, to the end of the same, the right salient angles of said ribs, severally, being the cutting angles.

Now, it has been found in practice that a tool made, as here represented, with the cutting-edges slightly spiral and reversed, as shown, with the axis of the tool, will obviate all such difficulties, and that after the hole has been formed by the drill, very little care is required with such a tool, as represented in Figs. 1 and 2, to make the holes perfectly true and smooth.

I therefore claim—

As a new article of manufacture, a reaming-tool of which the bit portion is constituted of a series of longitudinal projections or ribs, starting from the body of the stock, and extending, with a spiral inclination from the right toward the left, to the end of the same, the right salient angles of said ribs severally being the cutting angles, as described and shown.

ALFRED GODDARD.

Attest:

A. E. GODDARD,

J. E. REDFIELD.