

E. H. ADGATE.
ADJUSTABLE REAMER.

No. 111,296.

Patented Jan. 31, 1871.

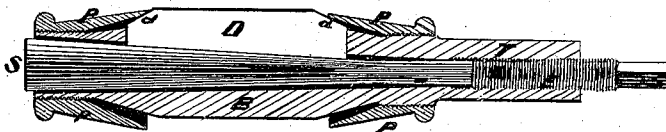


Fig 1

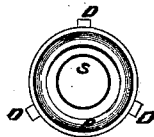


Fig 2

Inventor,

Edwin H. Adgate
by *Jardine & Hyde*

Witnesses

S. Dudley Chapin
L. F. Smith

United States Patent Office.

EDWIN H. ADGATE, OF MITTINEAGUE, MASSACHUSETTS.

Letters Patent No. 111,296, dated January 31, 1871.

IMPROVEMENT IN ADJUSTABLE REAMERS.

The Schedule referred to in these Letters Patent and making part of the same.

I, EDWIN H. ADGATE, of Mittineague, Hampden county, State of Massachusetts, have invented an Improved Adjustable Reamer, of which the following is a specification.

Nature and Objects of the Invention.

My invention relates to forming a reamer of two or more cutters, set in slots in the holder, radiating from its center, and in such a manner that a cone running the length of the reamer, through its center, can elevate the cutters, or permit them to be depressed, screw-caps on the outside of the reamer, projecting over the ends of the cutters, holding them in place and in contact with the cone; and

The object of my invention is to form an adjustable reamer, that can be graduated to the greatest nicety to fit any sized hole.

Description of the Accompanying Drawing.

Figure I is a sectional view of a reamer having three cutters.

Figure II is a view of one end of the reamer, showing the cap.

General Description.

D is a cutter, working in a slot in the holder B or body of the reamer, said slot radiating from the center of the reamer.

The cutters D are so formed that, while their outer or cutting-edges are parallel, the inner ones conform to the cone S and are always in contact with it.

The cone rises from a spindle, L, that is provided with a screw-thread, E, to work in part T of the reamer.

The projecting end of the spindle is formed so that a wrench can be used, if desired.

The cutters D have their corners beveled away at d, and screw-caps P P work on threads on the outside of the reamer, and, coming over and against the beveled corners of the cutters, clamp them securely against the cone S.

In operation, the caps are screwed away from the cutters, releasing them, when it is desired to increase the gauge of the cutting-power of the reamer; and, by means of a wrench or by the fingers, the cone S is screwed against the cutters until they are driven out the required distance, when the caps P P are screwed over their beveled ends.

When it is desired to reduce the gauge it is not necessary to unscrew the caps previously.

Claim.

What I claim as my invention is—

The combination of the cutters D D, cone S, screw-caps P P, and body of the reamer B, having the neck T for the reception of the screw-end E of the cone, the parts being constructed and arranged substantially as shown and described.

EDWIN H. ADGATE.

Witnesses:

R. F. HYDE,
L. V. SMITH.