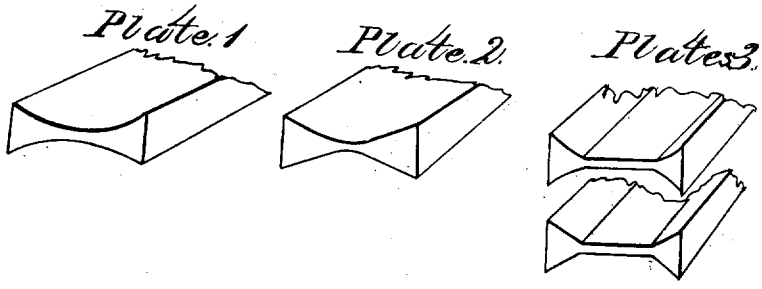
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No Printed Specification Available

R. French,

Making Augers,

Patented Nov. 11, 1834.



N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

Raymond French.
Letters Patent dated November 11. 1854

The schedule referred to in these Letters Patent and making part of the same, containing a description in the words of the said Raymond French, himself of his improvement in Screw, Spur and prompt Augurs, Screw & Spur bits.

To all to whom these presents shall come.

Be it known that I Raymond French, of Derby in the County of New Haven and State of Connecticut, have invented a new and useful improvement in the form and construction of screw, Spur & prompt Augurs, Gauge & Spur bits; & that the following is a full and exact description of the construction and operation of the said instruments, as invented or improved by me.

The plates from which the prods are formed, are constructed of a longitudinal concave surface, or in any other manner, so that the plate as well as the prod when finished shall be thinner in the centre and middle than upon its edges. This may be effected by a regular concavity from one edge to the other, upon each of its sides (see plate No 1) or by an obtuse angle from the longitudinal centre to the edges (see plate No 2) or by an even plate in the middle ranging in width according to the dimensions of the plate, and elevated or thickened upon the edges (see plate No 3). In general about one inch of the lower extremity of the plate is of the usual construction, that is to say of even thickness, for the purpose of raising and strengthening the lips of the screw.

The middle of the plate is to be made as thin as possible and retain its position in the process of manufacturing the same as well as sharpening it by which applied

to use, being generally about one sixteenth part of an inch thick on a plate of one inch in breadth, and varying with the size of the plate as well as the quality of metal. The edges of a plate of one inch breadth, are to be made generally about three eighths of an inch thick, varying still with the breadth of the plate (see illustrations) and the instrument are twisted and finished, in other respects, in the usual manner.

The object attained by this method of constructing the plate is that it gives the spiral cylinder of the pod when twisted, a greater capacity towards the outer surface of the same, and more perfectly envelops the core or chip, so that a metallic surface, on three sides, passages from the bottom to the top of the hole while boring, by which the chips are permitted to rise and flow off more freely and rapidly being prevented in a great degree from friction upon the surface of the hole, and from clogging within the pod. A coarse screw may be given to the tool constructed in this manner, than in the usual form, and the strength and durability of the instrument are increased by extending the principle part of the metal more remotely from the axis or longitudinal centre of the instrument.

In short all I claim, as my invention in the foregoing improvement, is the principle and its application to use, of constructing the plate and pod of boring augers, with the thickest part of the plate from the edge, as described, and for the purposes and in the manner specified, and in the manner above specified, and that the same principle and form may be applied to all tools used for boring holes in wood or timber, having a rotated pod, and two opposite cutters.

Witnesses

Edmund Clark Wheeler

Wm Thomas Carpenter

Raymond Franck

Recommended and dated July 13, 1845.