(No Model.)

J. H. STICKNEY.

BRAD AWL.

No. 270,258. Patented Jan. 9, 1883.

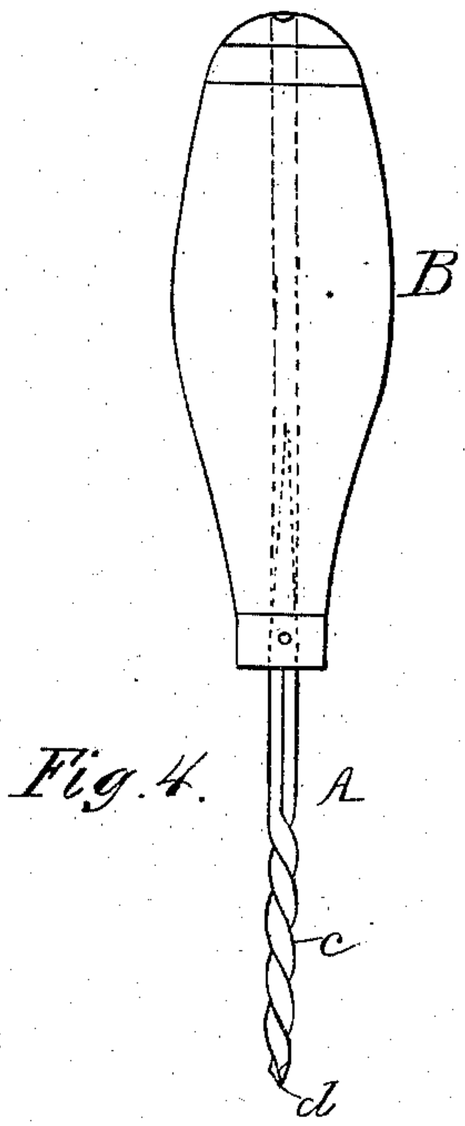

Fig. 4.

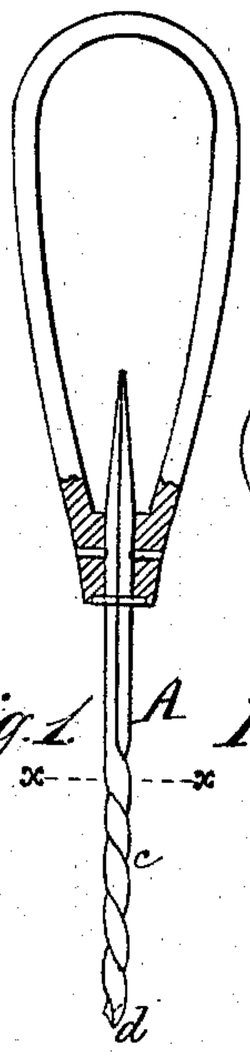

Fig. 1.

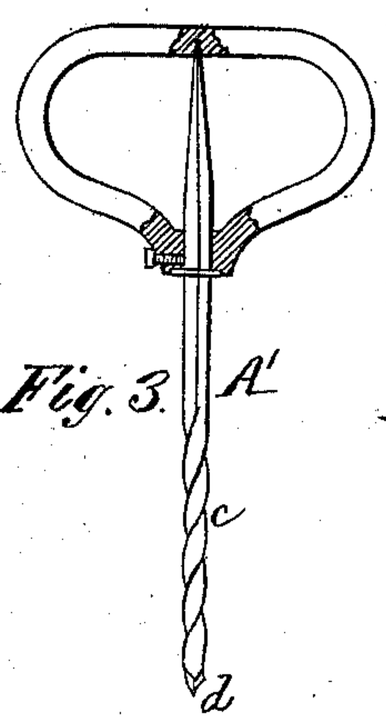

Fig. 3.

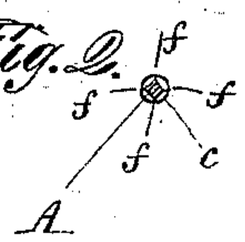

Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

JOHN H. STICKNEY, OF PORTSMOUTH, NEW HAMPSHIRE.

BRAD-AWL.

SPECIFICATION forming part of Letters Patent No. 270,258, dated January 9, 1883.

Application filed August 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. STICKNEY, a citizen of the United States, residing at Portsmouth, in the county of Rockingham and State of New Hampshire, have invented a new and Improved Brad-Awl with Spiral Twist, of which the following is a specification.

The nature of my invention consists in a brad-awl provided with either a right or left hand spiral twist between its shoulder and its entering point or end.

Brad-awls which are made of round or nearly round bars are found to press the fiber of wood or other substances pierced to one side, and consequently the article is very often split, and if not split the fact that the fiber of the wood has been very greatly compacted by being pressed to one side renders great care necessary when a pin or nail has to be driven; for should a pin or nail which is a little too large be used, such pin or nail by further displacing the fiber would cause the article to split in many instances.

My improved construction of brad-awl avoids the objections above mentioned, and possesses, I think, greater strength, and is superior in many respects to brad-awls heretofore devised.

In the accompanying drawings, Figure 1 is a side elevation of my improved brad-awl constructed with a right-hand twist and with a handle. Fig. 2 is a transverse section in the line *x x* of Fig. 1. Fig. 3 is a view similar to Fig. 1, the spiral twist being left-handed and the handle shaped differently; and Fig. 4 is a side elevation of the awl provided with a handle of different form from either of the others.

A in the accompanying drawings represents a flat-sided bar of steel provided with a tapering shank, *a*, shoulder *b*, spiral twist *c*, and a double-beveled entering end *d*. This bar of steel, after being well tempered and sharpened at the corners *f* and end *d*, constitutes one form of my improved awl with spiral twist. A′ is a similar bar of steel to that designated by A, with the spiral twist *c* made left-handed.

In constructing my awl any other suitable metal than steel may be used.

The handles B shown in the drawings may be of any suitable or known construction.

The advantages of my improved brad-awl may be stated as follows: First, the sharp corners *f* of the twist *c* remove the fiber of wood or other substance pierced; second, a larger pin or nail than the aperture formed by the awl can with greater safety be driven into the article pierced; third, a hole or aperture can be made nearer the edge or end of the article being pierced than with other awls without danger of splitting the wood; fourth, smoother holes can be made with it than with other awls; fifth, holes can be made in hard substances which an ordinary awl will not penetrate without danger of splitting the article or breaking the awl; and, sixth, as it often occurs that a hole is required to be a little larger than a round awl will make it, this necessity will be supplied by my invention, for after a hole is made with my awl it can be cut or filed either larger, round, or any desired shape—a result which cannot be attained with the round awl.

In the drawings the awl is shown with a tapered shank, so as to fit any common handle; but it is my intention to have the shank made of a form suited for the different kinds of handles in use, also for lathe-chucks and bit-stocks; but in any case the awl will have a shank, a spiral twist forming sharp corners, as *f*, and a proper-shaped entering end, as *d*; and the shank will be best if formed with either a shoulder, *b*, or equivalent enlargement or swell, which will answer the purpose of said shoulder; but it might be made without such shoulder and be fastened in a socket in any suitable manner.

I am aware that boring-tools which are not designed to enter wood or other material by any other than a rotary motion have been provided with either spiral grooves or straight grooves, and with edges which cut away the material, and points which are adapted to enter by a rotary motion of the tools. Such tools are shown in Letters Patent Nos. 103,461 and 151,450; but I am not aware that a tool similar to my brad-awl, formed of a prismatic bar with a beveled driving-point, a spiral twisted portion forming sharp cutting-edges, and a shank for receiving a handle or entering a forcing holder, has ever before been devised. My brad-awl is driven or forced into the wood by a straight movement, and its spirally-twisted

sharp corners cut away the wood, which is usually impacted solidly by awls of ordinary construction, and which are driven or forced instead of being turned into the wood.

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

The improved brad-awl herein described, as a new article of manufacture, consisting of a prismatic bar of metal provided with a bevel driving-point, a twisted portion above said point, and a shank above the twisted portion, which adapts it to be fitted to a forcing handle or holder, substantially as and for the purpose set forth.

JOHN HENRY STICKNEY.

Witnesses:

CALVIN PAGE,

MERCER GOODRICH.