(No Model.)

J. N. ISABEL.

BIT ATTACHMENT.

No. 417,486. Patented Dec. 17, 1889.

Fig. 1

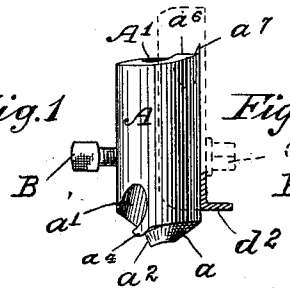


Fig. 2

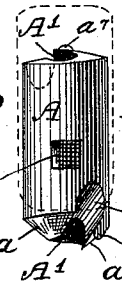


Fig. 3

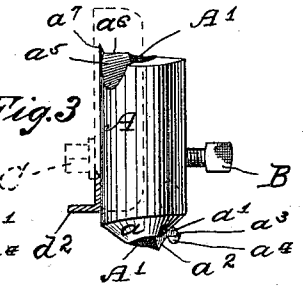


Fig. 4

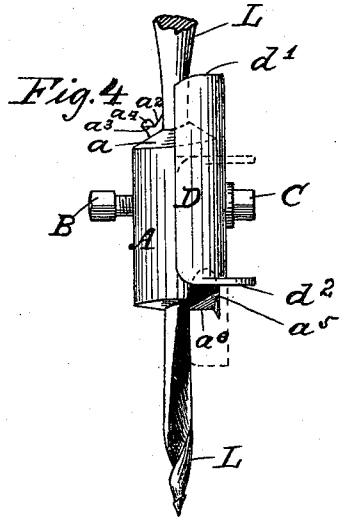
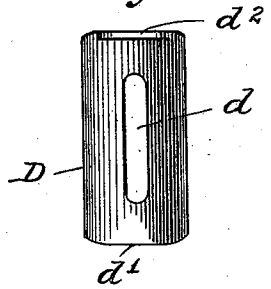


Fig. 5



Witnesses

Theo! Prince

M B Howe

Inventor

Joseph N. Isabel.

By his Attorney J. B. Thurston

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH NAZAIRE ISABEL, OF CONCORD, NEW HAMPSHIRE.

BIT ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 417,486, dated December 17, 1889.

Application filed March 11, 1889. Serial No. 302,825. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH NAZAIRE ISABEL, a citizen of the United States, residing at Concord, in the county of Merrimac and State of New Hampshire, have invented certain new and useful Improvements in Bit Attachments, of which the following is a specification.

The object of this invention is to provide in a bit attachment suitable cutters for sinking the heads of screws, cutting holes for wooden plugs for concealing said screw-heads or the heads of flat-headed bolts, and for cutting the wooden plugs themselves, all of which will be clearly described in the following specification and claim and fully illustrated in the accompanying drawings, forming an inseparable part thereof, of which—

Figure 1 represents an elevation of the countersinking and plug-sinking portion of my attachment, showing a portion of the plug-cutter in section and the balance in dotted lines. Fig. 2 is a similar representation of the same as viewed from the left side of Fig. 1. Fig. 3 is a view of the same, exposing the reverse of that which is shown in Fig. 1. Fig. 4 represents my improved attachment properly mounted on a bit in a position for cutting holes for plugs, and Fig. 5 is an elevation of the plug-cutting portion of my improved attachment.

Similar letters indicate corresponding parts.

A designates the cylindrical body of my improved attachment, which is provided at either end with integral cutters, to be hereinafter explained, and at opposite sides with the screws B C. The former is threaded to an opening connecting with the passage A′, for receiving a bit L, and may be "set" hard onto said bit and hold said attachment A at any given point required for enabling the bit to bore a hole of given depth, while the cap-screw C passes through a slot *d*, formed in the plug-cutter D, and secures the same to the part A at any required position, two of which positions are indicated by full and dotted lines in Fig. 4 of the drawings.

d′ represents the sharp end of the part D, and d^2 a right-angle projection formed at the opposite end, serving as a stop or gage for gaging the depth of cut to be made by either end of the part A, which may be reversed on the bit. One end of the part A is shaped into the common form of countersink, consisting of a conic portion formed a trifle spirally, as at *a*, and an oblique slot *a′* dividing the longest and shortest portion of the cone, thus forming the cutting-edge a^2.

In order to form a narrow circular flat surface outside of the countersunk head of a screw, upon which to seat a plug to cover a screw-head, I make the portion A of my bit attachment slightly larger in diameter than is the screw-head to be covered and form the horizontal radial cutter a^3 at the top of the cutting-edge a^2 of said countersink, provided at its extreme outside edge with the marker or circle-cutter a^4. The opposite end of the part A is provided with an oblique slot a^5 and a radial flat cutting-edge a^6, having at its outer end the marker or circle-cutter a^7 for countersinking flat-headed bolts and the like.

The plug-cutter D, when in use, may project from either end of the part A; but the latter must be secured or set by aid of the screw B at the lower end of the bit L, in order that a plug shall not be punctured by it.

Having described my improvement, what I claim as my invention is—

In a bit attachment, the hollow barrel A, having at one end cutters for countersinking the heads of screws and their concealing-plugs, at the opposite end a flat countersinking-cutter, and adjustable gage for determining the depth to be cut, having at one end a plug-cutter, and suitable screws for securing said gage to the part A and the latter to a bit.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH NAZAIRE ISABEL.

Witnesses:

J. B. THURSTON,

DANIEL B. DONOVAN.