

No. 108,837.

PATENTED NOV. 1, 1870.

W. B. SHEDD.
COUNTERSINK.

Fig. 1.

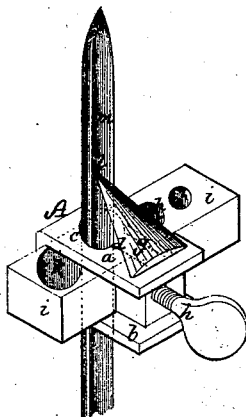


Fig. 2.

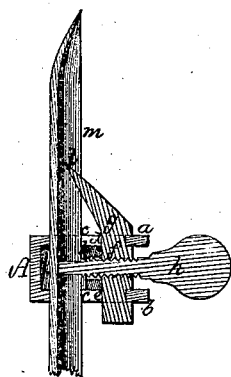
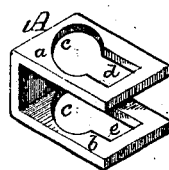


Fig. 3.



Witnesses.

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WILLIAM B. SHEDD, OF EAST BOSTON, MASSACHUSETTS.

Letters Patent No. 108,837, dated November 1, 1870.

IMPROVEMENT IN COUNTERSINKS.

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

To all whom it may concern:

Be it known that I, WILLIAM B. SHEDD, of East Boston, in the county of Suffolk and State of Massachusetts, have made an invention of an Adjustable Countersinking Device for Boring-Tools; and do hereby declare the nature of such invention, and the mode of carrying the same into effect, to be herein fully ascertained, due reference being had to the accompanying drawing making part of this specification, and in which—

Figure 1 is a perspective view, and

Figure 2 a vertical and transverse section of a device containing my improvements;

Figure 3 being a perspective view of its clasp, to be hereinafter referred to.

This invention has reference to the combination, with a "bit" gimlet, or other boring-tool, of an adjustable "countersinking" device, or cutter, by whose agency the hole bored by such tool is at the same time "countersunk" to any desired or given depth; and

The invention consists in the combination and arrangement of the several parts, as hereinafter described.

In the drawing—

A represents a thin flat plate of metal, fashioned into a right-angular yoke or clasp, with its two sides, *a b*, of equal length or thereabout, a hole, *c*, being formed through each side in coincidence, these holes being of like size, and equal in diameter to the largest boring-tool which the device will be applied to.

The outer end of each side *a* or *b* is formed with an elongated orifice or slot, *d* or *e*, to receive the shank *f* of the cutter *g*, which I have adapted to perform the functions of a countersink. This shank *f* is a flat-rectangular bar, and its upper end is prolonged into a sloping pyramidal-shaped or pointed steel plate, the edges of which are sufficiently sharp to cut wood or other material, the shank of such cutter being confined in place within the slots *d e* by a thumb or set-screw, *h*, which screws through it and into a rectangular oblong block of metal which the clasp A receives.

This block of metal is represented at *i* in the accompanying drawing as a rectangular oblong bar, provided with a series of vertical holes, *k k*, bored through it throughout its length, these holes being of varying

diameters and adapted to receive a series of boring-tools of corresponding diameters, while the female screw which receives the set-screw *h* should be situated in alignment with the center of each hole *k*, in order that the countersink or cutter *g* shall maintain the same relative position with each and every hole when used in connection therewith, or the boring-tool inserted in such hole.

This position of the cutter *g* is such that its apex or point *i* shall extend into the channel and closely against the least diameter of the cutting portion of the boring-tool, which, as is well known, is, in all boring-tools or nearly all, quite small, and nearly of uniform extent.

This entrance of the point and a portion of the effective cutting-surface of the cutter *g* within the circumference of the cutting portion of the boring-tool, forms a distinguishing feature in my invention, and has the effect of insuring an easy and smooth countersinking of the hole bored by such tool, which would not be the case did the said point recede, in the least degree, from such circumference, as in such an event it would take into the material and describe a circle or score outside of such hole, and estop all further advance.

A "bit," of the ordinary "gouge pattern," is represented at *m*, in the accompanying drawing, as inserted within the holes *c e* of the clasp A, and one of the holes *k* of the block *i* with which it assimilates in diameter, the screw *h* being advanced against the said tool *m* with sufficient power to retain the clasp, block, cutter, and tool securely in their proper positions, the said cutter, as a consequence, traveling with the said tool when the latter is in revolution.

Claim.

The herein-described combination of the clasp A, the cutter *g*, block *i*, and screw *h*, the whole constituting an adjustable countersink for boring-tools, and operating as set forth.

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Witnesses:

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ED. GRIFFITH.