(No Model.)

E. H. SUTTON.

CONICAL COUNTERSINK AND BIT GAGE.

No. 264,791. Patented Sept. 19, 1882.

Fig. 1.

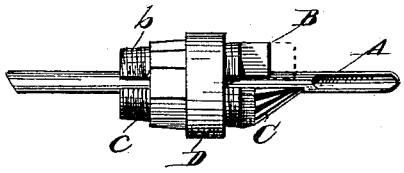


Fig. 2.

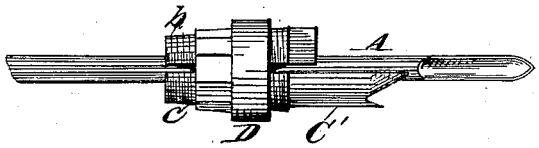


Fig. 4.

Fig. 3.

Fig. 5.

Fig. 6.

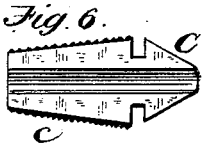


Fig. 8.

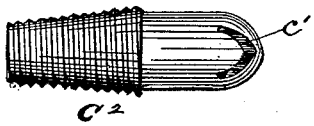
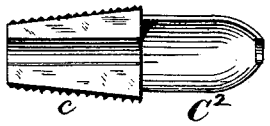


Fig. 7



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CONICAL COUNTERSINK AND BIT-GAGE.

SPECIFICATION forming part of Letters Patent No. 264,791, dated September 19, 1882

Application filed March 4, 1882. (No model.)

To all whom it may concern:

Be it known that I, EBENEZER H. SUTTON, a citizen of the United States, residing at Macy, in the county of Miami and State of Indiana, have invented certain new and useful Improvements in Conical Countersinks and Bit-Gages; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a side view of my improved reamer. Fig. 2 is a similar view, showing it adapted to simultaneously form a countersink and a bore for a plug. Figs. 3 and 6 are views of the adjustable gage and reamer respectively. Figs. 4 and 5 are views of the adjustable collar or nut and bit respectively, and Figs. 7 and 8 are different views of a modified form of reamer for making a countersink and bore for a plug.

The purpose of this invention is to gage the depth of boring or reaming according to the size of the screw or plug to be used, and to permit the simultaneous countersinking and boring the material to sink the countersink below the surface to enable the plugging the countersunk head of the screw; and it consists in the combination and arrangement of parts, substantially as hereinafter more fully set forth and claimed.

To put into practice my invention I employ, as observed by reference to the accompanying drawings, in connection with an ordinary bit, A, of this class of implements, a gage, B, and a reamer or cutter, C, fitted to slide upon the bit A, having each a screw-threaded surface, as at *b c*, and having adjusted thereon a screw-threaded collar or nut, D, with a conveniently formed or raised surface for easy operation or manipulation. As indicated by dotted lines in Fig. 1, the gage is capable of adjustment by unscrewing the nut or collar and moving the gage to the desired point with relation to the point of the reamer, and again screwing up the nut or collar to tighten parts in place to gage the depth of reaming the material according to the size of countersink desired or the head of screw to be accommodated.

In Fig. 2 the reamer C is replaced by a modified form of reamer, C′, which cuts a bore simultaneously with reaming the material to sink the countersink below the surface and receive a plug above the countersink. The bit of course cuts the bore or passage for the body of the screw at the same time. C^2, Figs. 7 and 8, is a modified form of the reamer or cutter C′, having parallel side lips or bits, *c′*. This implement, as before remarked, gages the depth of reaming and boring the material, thus regulating the size of the countersink and permitting the sinking the countersink below the surface while forming the bore for the body of the screw.

I claim and desire to secure by Letters Patent—

1. The combination of the screw-threaded gage, a central bit, a reamer, and the screw-threaded collar or nut which confines the gage and reamer to the bit, substantially as and for the purpose set forth.

2. The combination of the screw-threaded gage, the reamer having a lip or lips, a central bit, and a screw-threaded collar or nut which confines the gage and reamer to the bit, substantially as and for the purpose set forth.

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

EBENEZER H. SUTTON.

Witnesses:

H. C. DAY,

E. B. SUTTON.