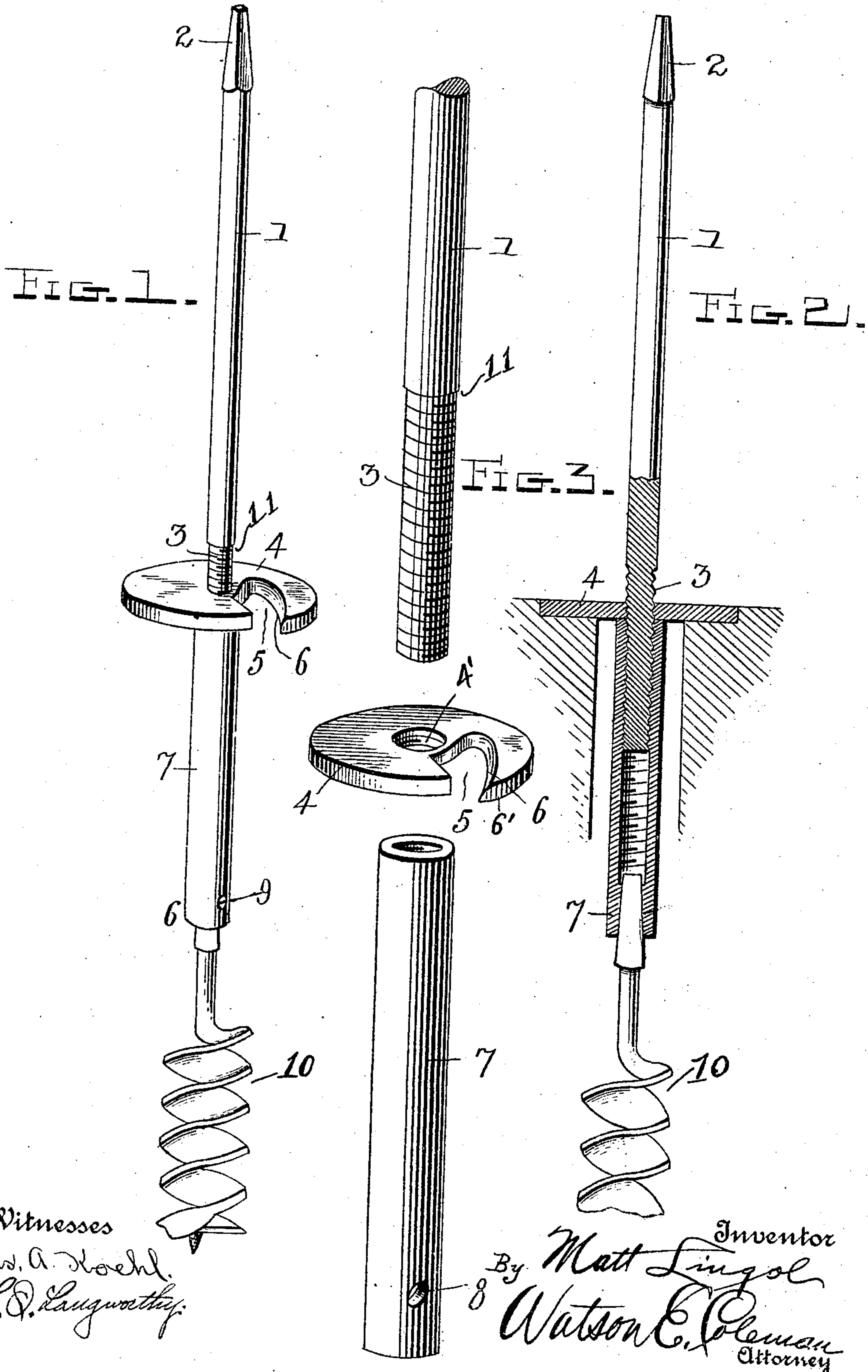


No. 843,832.

PATENTED FEB. 12, 1907.

M. LINGOL.  
COMBINATION AUGER.  
APPLICATION FILED FEB. 24, 1906.



Witnesses  
Jas. A. Koehl.  
C. P. Langworthy.

Inventor  
By Matt Lingol  
Watson C. Coleman  
Attorney



# UNITED STATES PATENT OFFICE.

MATT LINGOL, OF TELLURIDE, COLORADO.

## COMBINATION-AUGER.

No. 843,832.

Specification of Letters Patent.

Patented Feb. 12, 1907.

Application filed February 24, 1906. Serial No. 302,803.

*To all whom it may concern:*

Be it known that I, MATT LINGOL, a citizen of the United States, residing at Telluride, in the county of San Miguel and State of Colorado, have invented certain new and useful Improvements in Combination-Augers, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to combination-augers, and particularly to that class of implements adapted for use in cutting bolt-holes and similar openings through beams, rafters, girders, and the like, where it is usually necessary or desirable to bore holes of considerable depth for the insertion of bolts, whereby pieces of wood may be held together or retained in position, the primary object of this invention being to provide means for countersinking to form an opening or recess in which the nut may rest so as to be flush with the wood.

A still further object of the invention is to provide an auger having a countersinking device adjustably mounted thereon and so arranged to countersink a recess for the nut at the same time the hole is bored for the bolt.

Heretofore in sinking washers or nuts it has been the practice to chisel out an opening with a mallet and chisel in order that said nut or washer might rest flush with the wood, and by the use of my invention the mallet and chisel may be dispensed with, as the opening for the washer or nut will be made simultaneous with the boring of the aperture for the bolt, making the invention of great advantage in bridge, flume, and other construction work where heavy timbers are bolted together at various angles.

My invention consists in the arrangement and construction of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, which are made a part of the specification.

In the drawings like reference-numerals designate corresponding portions throughout, and Figure 1 is a perspective view of the complete device without the ordinary auger or bit handle. Fig. 2 is a side elevation, partly in section, illustrating the manner in which the countersinking is effected simultaneously with the boring of the bolt-hole, and Fig. 3 is a detail perspective view showing parts removed.

1 designates a shank squared at the top,

as shown at 2, to receive a handle. The lower end of this shank is threaded, as at 3, to receive a cutting-disk 4, having a central threaded opening 4' therethrough and an irregular-shaped slot 5, the wall of which is inclined, as shown at 5, to form a cutting edge. In order that this cutting edge may engage the material to be cut, the projecting point 6' is slightly bent downward, which enables the sharp edge 6 to shave the material operated upon and perform the act of boring out a recess for the nut or washer. Fitting on the lower end of said shank 1 is an interiorly-threaded sleeve 7, having an opening 8 for the reception of a set-screw 9, by means of which an auger or bit 10 may be secured in the lower end of said sleeve. The upper end of this sleeve is arranged to engage the cutting-disk 4 and bear against it to frictionally hold the same against rotation on the threads, said sleeve affording means whereby the disk may be held against rotation in adjusted positions on the threaded portion 3 of said shank.

In operation the cutting-disk 4 is adjusted on the threaded portion 3 of the shank 1, so that it will contact the timber or wood to countersink a recess for the nut or washer as the hole is bored by the bit or auger 10. It will be observed that the countersinking-disk can be adjusted on the shank and held in such adjusted position by frictional contact with the sleeve 7, so as to enable the operator to countersink the recesses for nuts and washers the necessary depth according to the thickness of the timbers. The threaded portion of the shank 1 is preferably somewhat smaller in diameter than the remainder of the shank to leave a shoulder 11, which limits the travel of the disk 4 thereon, and the interior of the lower end is reduced in space and may be either round or squared to receive the ordinary regulation bit or auger 10.

From the foregoing it is believed the construction, operation, and advantages of my invention will be apparent without further explanation. It is obvious that various minor changes may be made in size, proportion, and arrangement of parts, which changes come well within the scope and spirit of my invention as defined by the appended claim. Hence I do not desire to be limited to the precise construction and arrangement shown.

Having thus described my said invention,



what I claim as new, and desire to secure by Letters Patent of the United States, is—

The herein-described device comprising a shank having an externally-screw-threaded lower end and its upper end shaped to fit a rotating element, a cutting-disk having a central opening threaded to screw upon the threaded lower end of said shank, said disk being also formed with an irregular-shaped slot having one of its walls bent downwardly and beveled to provide a cutting edge, a sleeve having its upper portion internally screw threaded to screw upon the threaded lower end of said shank, the upper end of said sleeve being adapted to impinge against the bottom face of said cutting-disk to ad-

justably secure the latter upon said shank, the lower end of said sleeve being formed with a polygonal socket, a bit or auger having its polygonal-shaped inner or upper end removably engaged with the similar-shaped socket in the lower end of said sleeve, and a set-screw for retaining the bit or auger in said sleeve, substantially as shown and for the purposes set forth.

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

MATT LINGOL.

Witnesses:

FRANCIS M. FRANTZ,  
HARRY C. RUSSELL.