

(No Model.)

F. LEU.
COUNTERSINK.

No. 328,320.

Patented Oct. 13, 1885.

FIG. 1.

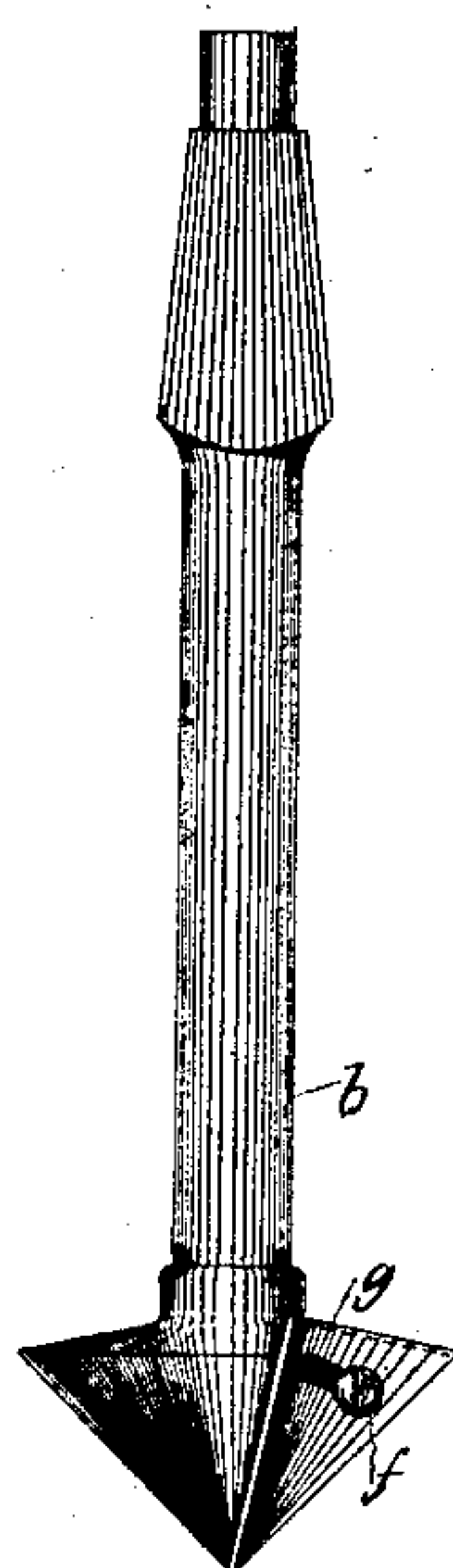
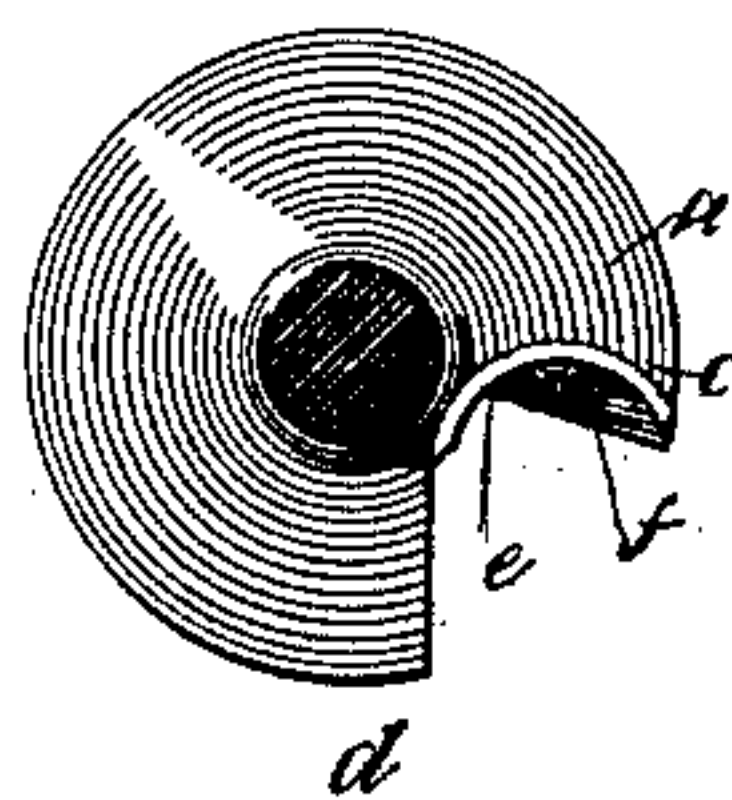


FIG. 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FREDERICK LEU, OF BROOKLYN, NEW YORK.

COUNTERSINK.

SPECIFICATION forming part of Letters Patent No. 328,320, dated October 13, 1885.

Application filed July 11, 1885. Serial No. 171,288. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK LEU, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in Countersinks, of which the following is a specification.

My invention consists of a contrivance for the practicable arrangement of an adjustable cutter in the cone of a countersink for the taper heads of wood and other screws, whereby such tools may have cutters that may be readily sharpened and reset, which, owing to the obstacle that the peculiar form of such tools has up to this time presented to the use of adjustable cutters, have only been provided with solid cutters of the cone itself, which are both difficult to sharpen, and, being sharpened, alter the size and shape of the tool so that it soon becomes useless.

In the accompanying drawings, Figure 1 is a side elevation of my improved countersink, and Fig. 2 is a plan of the cone, with the shank in horizontal section.

I make a notch in the side of the cone *a* extending from the top of the cone to the point, said notch being circumferentially a little less than a quarter of the cone in extent, and radially it extends to the periphery of the shank *b*, or thereabout, at the top of the cone, and to the center or a little deeper at the point, and I construct the back wall, *c*, of this notch on a true curve the chord of which is about radial to the axis of the tool.

The front wall, *d*, of the notch is tangent to the shank at the top, but inclines forward

from the top downward to a radial line, or thereabout; but the form of this side of the notch is not material, except that it should join the inner edge of the back wall evenly and without an offset or ledge. To this curved back wall of the notch I attach a correspondingly-curved and tapered cutter, *e*, of thin steel, by a set-screw, *f*, tapped into the cone through a slot, *g*, of the cutter, by which the cutter is firmly secured, and at the same time is capable of being shifted outward from time to time as it is required to grind the edge sharp.

The edge can be ground without taking the cutter off the cone, which is a gage to which the cutter may be accurately ground, the cutter being preferably shifted slightly forward of its normal position while being ground for the protection of the cone, and subsequently shifted back.

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

The combination, with the cone of a countersink having a tapered notch in the side extending from the top of the cone to the point and curved in the back wall, substantially as described, of the correspondingly-tapered and curved cutter adjustably secured to said curved wall of the notch, as herein set forth.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

FREDERICK LEU.

Witnesses:

W. J. MORGAN,
S. H. MORGAN.