(Model.)

J. M. GOODRIDGE.

WOOD SCREW.

No. 262,892. Patented Aug. 15, 1882.

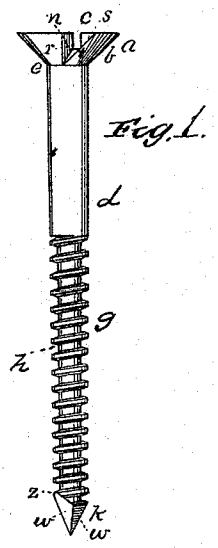


Fig. 1.

Fig. 2.

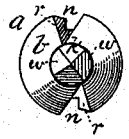
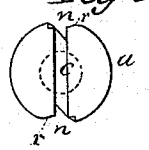


Fig 3



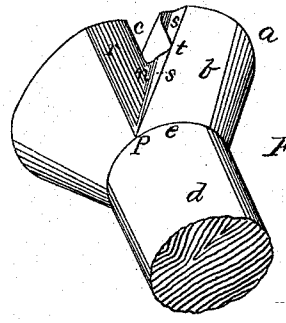


Fig. 4.

WITNESSES

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UNITED STATES PATENT OFFICE.

JOHN M. GOODRIDGE, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO DAVID HUMPHREYS, OF NORFOLK, VIRGINIA.

WOOD-SCREW.

SPECIFICATION forming part of Letters Patent No. 262,892, dated August 15, 1882.

Application filed March 25, 1882. (Model.)

To all whom it may concern:

Be it known that I, JOHN M. GOODRIDGE, a citizen of the United States, and a resident of Baltimore, in the county of Baltimore and State of Maryland, have invented a new and valuable Improvement in Screws; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a side view of this invention. Fig. 2 is a bottom view. Fig. 3 is a top view. Fig. 4 is a perspective view of the head.

This invention has relation to wood-screws having under-beveled heads; and it consists in the formation at each end of the drive-slot of an oblique shallow notch having its apex at the neck of the screw, an abrupt oblique reaming-shoulder extending from the neck across the bottom of the slot back of the same, and a shallow under-beveled surface in front of said shoulder, all as hereinafter set forth, and particularly pointed out in the claims appended.

In the accompanying drawings, the letter *a* designates the head of the screw, having the under-beveled surface *b* and the drive-slot *c* extending across its top. The shank *d* joins the cone-shaped under bevel of the head at the neck *e*, and the thread *g* extends from the shank *d* around the core *h* of the stem to the point *k*. At each end of the drive-slot, in the side of the under bevel, *b*, is made a shallow angular notch, *n*, the apex *p* of which is at the neck *e* in advance, or at the left of the drive-slot, and from the apex extends upward and rearward obliquely the reaming-shoulder *s* back of said drive-slot to the top of the screw. In front of this shoulder the under-beveled and depressed surface *r* of the notch extends in front of the drive-slot to the under bevel, *b*, of the head. The reaming-shoulder *s* intersects obliquely the bottom of the drive-slot, as shown at *t*. The point *k* of the screw is pyramidal, having four walls, *w*, which extend from its extremity to the threaded portion of the stem, the thread *g* commencing at the base of the point, as indicated at *z*. This pyramidal point is designed to act efficiently in opening the woody fibers for the passage of the screw-stem, separating the fibers in a free manner, so that the threaded stem will follow easily and without heating up, and consequently without splitting the wood. The reaming-shoulders *s* of the head form the countersink or conical seat in the woody material with ease, even when the head of the screw is turned entirely below the surface, as the woody particles which are separated by the reaming-edges are guided thereby upward and outward through the openings at the ends of the drive-slot.

As the depressed surface *r* of the notch is but little below the under bevel, *b*, of the head, it is apparent that but little material is taken away therefrom at the corners of the drive-slot, so that a full bearing is afforded to the end of the screw-driver; and as the pyramidal point opens the way freely for the stem the screw is easy to drive and the head not so liable to be carried away or injured.

A wood-screw having vertical cutters at opposite ends of the drive-slot and oblique walls at the opposite side of the drive-slot and at the ends thereof for the escape of the chips when the screw-head is forming the countersink in the wood is old, and is not claimed herein. A triangular screw-point having concave face and cutting-edges is also old, and a harpoon-pointed screw has been used before my invention.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. A wood-screw having at each end of the drive-slot a shallow oblique notch, *n*, having its apex at the neck of the screw, an abrupt oblique reaming-shoulder, *s*, extending from the neck to and back of the drive-slot and intersecting the bottom of the drive-slot, and the depressed shallow under-beveled surface *r* in front of said shoulder, substantially as specified.

2. The wood-screw having the square pyramidal point *k*, the thread *g*, commencing at the base of said point, and the head having the oblique side notches, *n*, at the ends of the drive-slot, and the shoulders *s*, intersecting the ends of said slot and extending back of the same, as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN M. GOODRIDGE.

Witnesses:
THEO. MUNGEN,
JAMES J. SHEEHY.