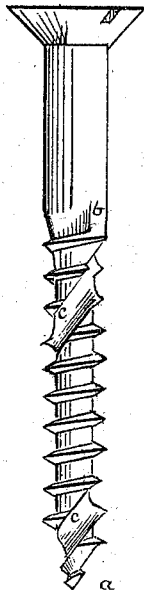


A. S. LADD & C. N. CORNING.

Wood Screws.

No. 142,112.

Patented August 26, 1873.



Witnesses
Chas. C. Smith
J. E. Lang

Inventors
Austin S. Ladd
Cyrus N. Corning

UNITED STATES PATENT OFFICE.

AUSTIN S. LADD AND CYRUS N. CORNING, OF CONCORD, NEW HAMPSHIRE.

IMPROVEMENT IN WOOD-SCREWS.

Specification forming part of Letters Patent No. **142,112**, dated August 26, 1873; application filed April 23, 1873.

To all whom it may concern:

Be it known that we, AUSTIN S. LADD and CYRUS N. CORNING, both of Concord, in the county of Merrimack and State of New Hampshire, declare the following to be a full and complete description of our Improvement in Wood-Screws, referring to the accompanying drawing, prepared to illustrate the same.

Our improvement consists in combining the German-twist bit with the screw in such manner that the screw will cut its own way or hole in the wood, so as to enter the wood easily, without splitting the wood, and without the application of force enough to burst off the screw. This improvement may be used either with a common straight bit or with the German-twist bit; but we consider the German bit the best combination, of the form shown

at *a* in the drawing. We also provide a cutter, shown at *b*, in the shaft of the screw, by which a hole is cut for the shaft of the screw of larger size than is made by the bit portion of the screw. The channel or groove *c* is cut, not through the threads alone, but into the body of the screw, and retains the wood cut away by the bit in turning in the screw.

We claim—

As a new article of manufacture, a wood-screw provided with the cutter *b*, groove *c*, and point *a*, combined and operating as shown.

AUSTIN S. LADD.

CYRUS N. CORNING.

Witnesses:

CHAS. C. LUND,
L. D. STEVENS.