H. SIMPSON.

NUT-LOCK.

No. 185,585. Patented Dec. 19, 1876.

Fig. 1.

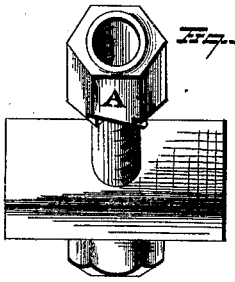


Fig. 2.

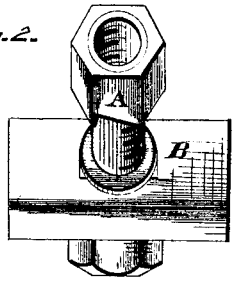


Fig. 3.

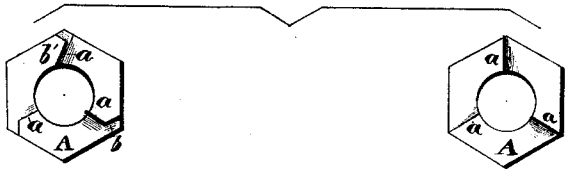
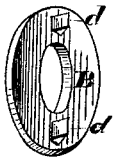


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

HARRY SIMPSON, OF PIKE STATION, ASSIGNOR TO HIMSELF AND WARDEN WHEELER, OF SAME PLACE, AND E. P. BATES AND IRA BATES, OF WOOSTER, OHIO.

IMPROVEMENT IN NUT-LOCKS.

Specification forming part of Letters Patent No. **185,585**, dated December 19, 1876; application filed September 21, 1876.

To all whom it may concern:

Be it known that I, HARRY SIMPSON, of Pike Station, in the county of Wayne and State of Ohio, have invented certain new and useful Improvements in Nut-Locks; and I do hereby 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to nut-locks; and consists, first, in constructing a nut with burrs or cutting-projections on its under face; and, second, when used in connection with wood, in combining therewith a washer, provided with teeth or sharp projections on its under surface.

In the drawing, Figure 1 represents an isometric view of a nut-lock embodying my invention. Fig. 2 is a similar view in connection with the washer. Fig. 3 represents two views, showing the under face of the nut. Fig. 4 is a separate view of the washer.

A represents the nut, provided on its under face with the burrs or cutting-projections *a*, to the number of two or more. From the top or cutting edge of each projection the under surface of the nut extends in an inclined plane to the bottom of the next projection, thus making a very strong burr or cutting-projection.

When the nut is intended to be used on rough surfaces, the burr is made to extend from the opening to the edge, at a point where two side surfaces of the nut meet. When intended to be used on polished surfaces, where it is desirable to avoid marring such surface beyond the sides of the nut, a part of the burr is cut off, extending from the outer edge inward, sufficient to leave the remaining part of a length equal to the distance from the opening to the middle of a side. The nut is constructed of its greatest thickness through the apex of the cutting-edges *a b*, and gradually diminishes in thickness from such point to its inner edge, as shown at *b*, Fig. 3. By this the entire cutting-edge of a burr is confined within the circle of the least diameter of the nut.

This can be secured in another manner, however, by locating the burrs at the middle of a side, instead of at the line where the sides meet, thus avoiding the cutting before referred to.

B is the washer, provided on its under surface with two or more spurs or sharp projections, *d*, and is intended to be employed in connection with said nut when wood or other similar substance is the material operated upon. Its upper surface is acted upon by the burred under side of the nut.

The operation is as follows: When the nut is tightened upon the screw bolt, the burred under surface of the former partially embeds itself in the metal plate or washer, forming therein a slight indentation and fin; and when, now, any return movement of the nut is attempted, I have found by experiment that the sharp edges of the burrs embed themselves in the metallic plate, and prevent the reverse turn of the nut.

In cases where wood is operated upon the spurred washer B is placed next to the same, and the burred surface of the nut acts on the upper face of the washer, and causes the spurs or sharp projections of the washer to become embedded in the wood, at the same time taking hold of the upper surface of the washer, as before described.

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

The nut A, provided on its under face with burrs or projections *a*, cut off at *b*, substantially as and for the purpose shown and described.

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

HARRY SIMPSON.

Witnesses:

FRANCIS TOUMEY,

EDWARD WALSH.