

J. A. Bidwell, Wood-Screw.

No 74,489.

Patented Feb. 18, 1868.

Fig. 4.

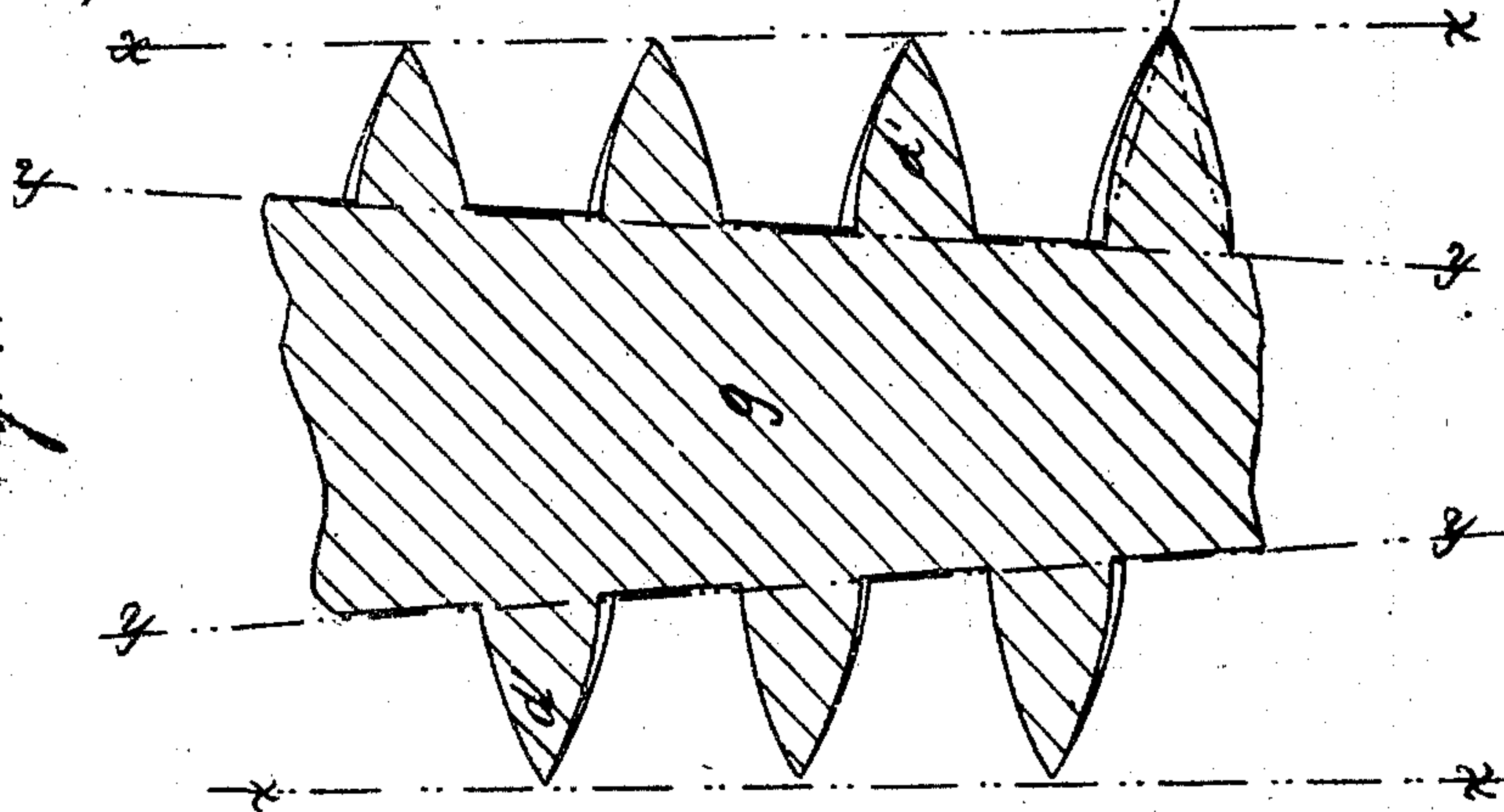


Fig. 3.

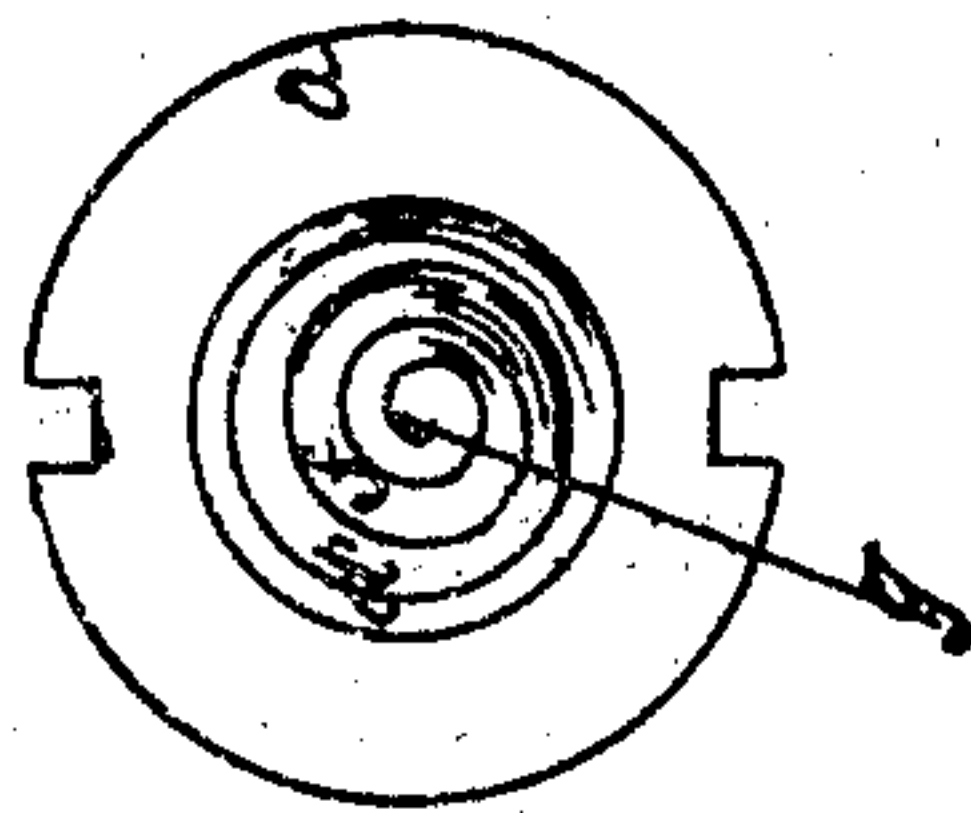


Fig. 2.

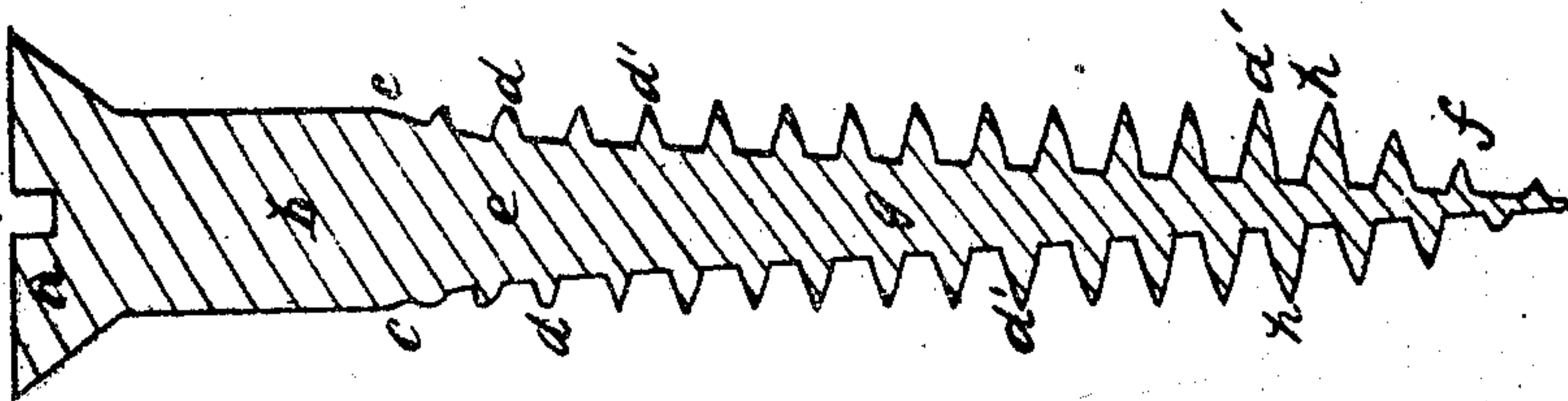
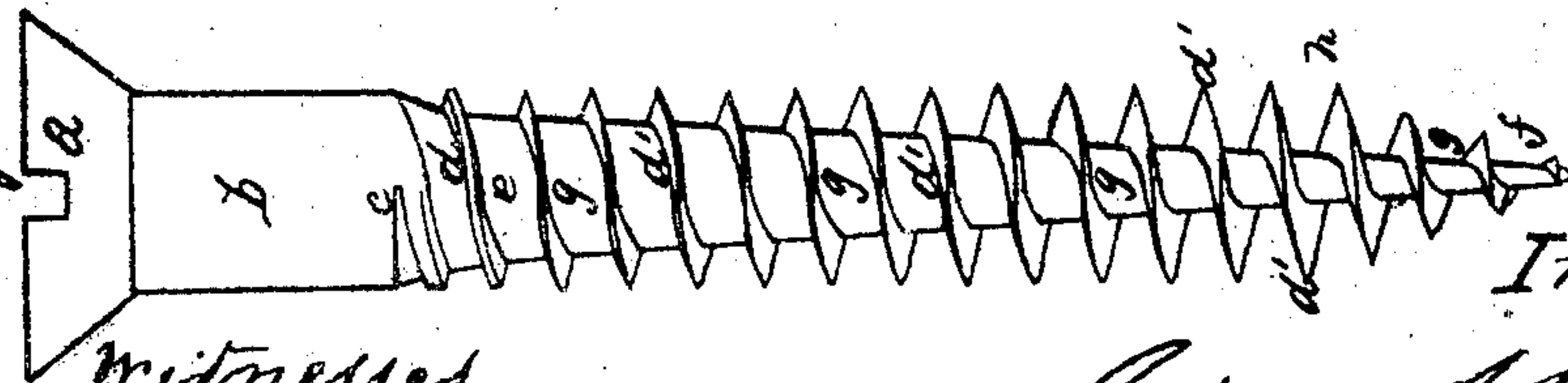


Fig. 1.



Inventor.

Witnesses
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United States Patent Office.

JASON A. BIDWELL, OF EAST BOSTON, MASSACHUSETTS.

Letters Patent No. 74,489, dated February 18, 1868.

IMPROVEMENT IN WOOD-SCREWS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JASON A. BIDWELL, of East Boston, Suffolk county, State of Massachusetts, have invented an Improved Wood-Screw; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side view of the improved screw.

Figure 2 is a diametrical section through the screw.

Figure 3 is an end view.

Figure 4 is an enlarged sectional view of a portion of the screw, showing clearly the form of the thread.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to construct a wood-screw which will penetrate wood more readily, and have a firmer hold than wood-screws hitherto made.

The nature of my invention consists in a wood-screw having a core, which tapers from the shank to the point, and a thread which does not taper, except at the entering-point of the screw, said thread being constructed with double convex sides, so as to increase the bearing-surface, and add greater strength to it, as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings, *a* represents the head of the screw, which may be notched or slotted, as shown, or it may be perforated; and *b* represents the cylindrical shank or neck of the screw, which extends from the head to the point, *c*, where the screw-thread commences. The thread *d* commences at the circumference of the shank *b*, and gradually increases in depth, until the full depth of the screw is obtained, thereby producing the conical core *e*, which may be more or less tapering, as desired. The core *g*, upon which the full thread *d* is formed, commences at the termination of the cone-shoulder *e*, and continues to the entering-point *f*, with a gradual taper, as shown in figs. 1 and 2. The thread *d d'* is of the same diameter as the shank *b*, from the point *c* to the point *h*, when it is gradually reduced, so as to form the entering-point. It will be seen that the portion *d'* of the thread of my screw abruptly increases in depth upon the conical shoulder *e*, and then gradually increases in depth from this point to the reduced entering-end. Instead of making the surfaces of the thread flat, as in some wood-screws hitherto, I make these surfaces convex or rounding, as shown in figs. 2 and 4, so as to increase their thickness, and consequently increase the strength of the thread. The case of the thread also increases in thickness as it approaches the entering-point of the screw, so that it shall not have its strength diminished as it is increased in depth.

It will be seen from the above description and accompanying drawings, that no part of the core of my improved screw is cylindrical, but that it forms a conical wedge, which will enter wood without driving the fibres in advance of it. The fibres of the wood will be spread out laterally, and compacted between and outside of the thread, while the latter will wind its way down into the wood, and secure a firm hold therein.

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

As a new and improved article of manufacture, a wood-screw, having its core tapering from its shank to its entering-point, and provided with a thread of uniform diameter, as herein described.

JASON A. BIDWELL.

Witnesses:

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