

(No Model.)

S. MONTGOMERY.

WOOD SCREW.

No. 294,255.

Patented Feb. 26, 1884.

FIG. 1.

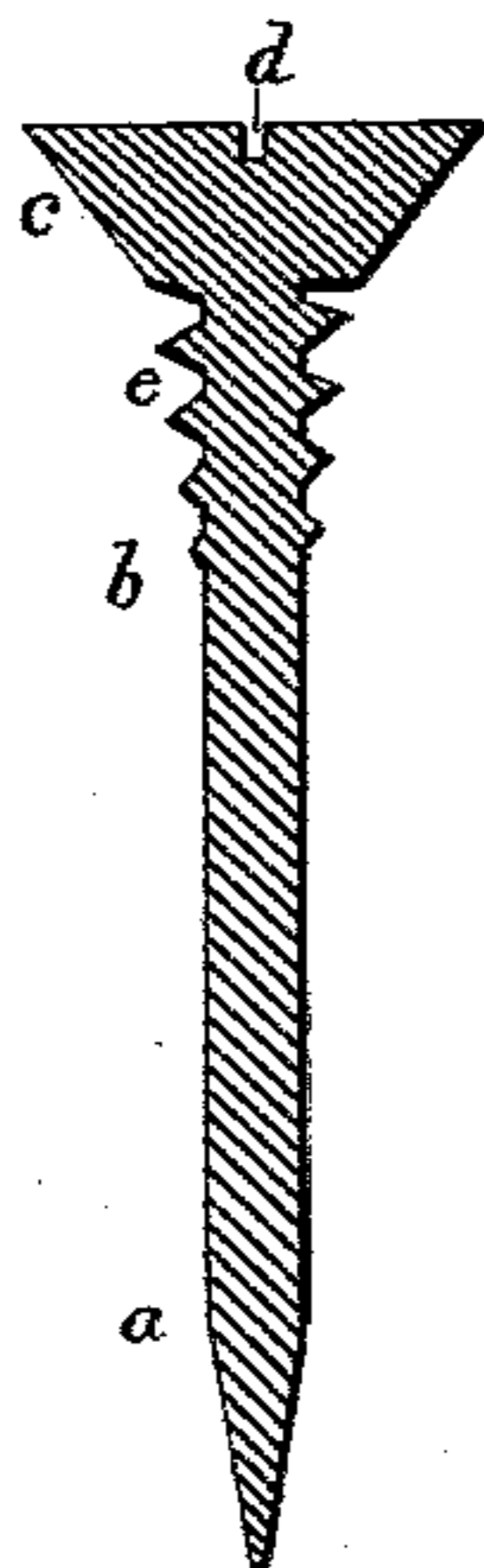
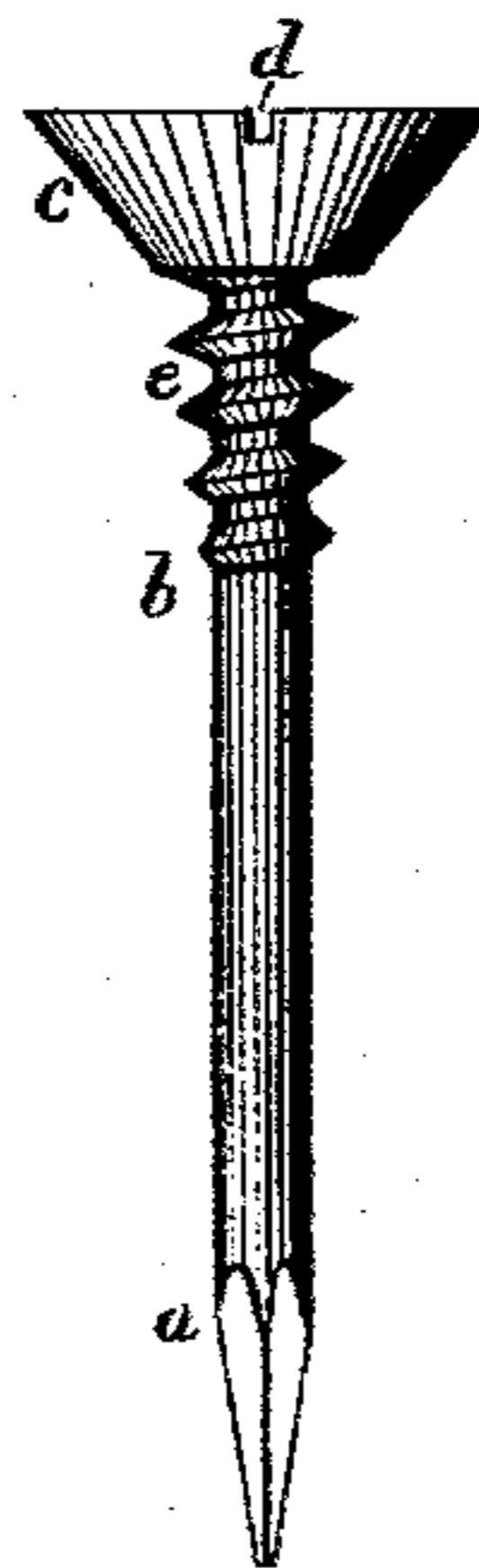


FIG. 2.



Witnesses:
John Tucker,
Henry Lib.

Samuel Montgomery,
Inventor:
By North Ogden
Attorney

UNITED STATES PATENT OFFICE.

SAMUEL MONTGOMERY, OF NEW YORK, N. Y.

WOOD-SCREW.

SPECIFICATION forming part of Letters Patent No. 294,255, dated February 26, 1884.

Application filed October 24, 1883. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL MONTGOMERY, of New York city, county of New York, and State of New York, have invented certain new and useful Improvements in Wood-Screws, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention has relation to screws intended to be driven into wood—wholly or partly—by turning them with a suitable implement, and these are ordinarily called “wood-screws,” to distinguish them from other screws intended only for use in connection with metal.

The object of my invention is to produce an article which may be driven into wood for a considerable distance, after the manner of an ordinary French or other nail, and which may be then turned in for the remainder of its length like the ordinary wood-screw, which improved article shall possess all the holding qualities of the screw, be much more easily and quickly inserted or driven, be lighter and cheaper than the ordinary screw, less liable to split the wood into which driven, and more quickly and easily withdrawn than the ordinary screw. To accomplish all of this my improvements involve certain novel and useful peculiarities of construction and arrangement of the parts, all of which will be herein first fully described, and then pointed out in the claim.

In the accompanying drawings, forming part of this specification, Figure 1 is a vertical axial section, and Fig. 2 an elevation, of a wood-screw constructed according to my invention and involving my improvements.

Like letters of reference indicate corresponding parts in both figures.

The lower part of the article, from *a* to *b*, is preferably made cylindrical, after the manner of French nails, and provided with a point to facilitate its being driven into wood. This cylindrical form is less liable to split the wood than the other forms; but other shapes might be given this part, it being only necessary that it be plain, like a nail.

The head of the improved screw is represented at *c*, being inclined or beveled, as are the heads of ordinary wood-screws, and pro-

vided with the usual slot, *d*, or equivalent means for facilitating the application of a screw-driver. Immediately below the head is the threaded part *e*, gradually swelling up from its union with the cylindrical part until it joins with the lower part of the head. The threads upon *e* are preferably cut so that the spaces between them, or the “lands,” are deepest at top, and gradually grow less deep until the lower extremity of the threads is reached. These cuts between the threads preferably extend in to about the depth of the line of the plain part; but they may be otherwise cut, if desired. The screw, being so constructed, is driven by the hammer until the screw-threads reach the wood, and the driving is then completed with the screw-driver.

To withdraw this improved screw it has only to be unturned slightly, when it may be pulled out quickly with the claw-hammer, avoiding the continuous turning heretofore required at the expense of time.

The peculiar advantages of the screw will be apparent in applying hinges, casters, &c., to furniture, and for all uses to which the ordinary wood-screw is generally applicable, especially in cases where it is desired to drive the screw without checking or splitting the wood in its application to all hard woods, and in cases where it may be desired to withdraw it rapidly.

The upper part of the improved screw is peculiarly strong, while the lower part is light, effecting a considerable saving in weight of metal without detracting from the strength of the screw. The threads, being adjacent to the head and following in after the plain part, draw the head into the wood. When it is required that it be sunken in, and when used for securing trimmings or fittings of hardware, the strongest bearing is at or near the head—a material advantage over the ordinary wood-screw, which has a plain part adjacent to the head and the weakest hold upon the wood at the part where in such cases it should be strongest.

When constructed as above set forth, the improved screw will be found in practice to admirably answer the purpose or object of the invention as previously set forth.

Having now fully described my invention,

what I claim as new, and desire to secure by Letters Patent, is—

5 The herein-described wood-screw, composed of the head, a threaded portion adjacent thereto, and a cylindrical or plain portion, pointed as explained, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

SAMUEL MONTGOMERY.

Witnesses:

WM. J. WORLEY,

WM. A. CHARTERS.