

No. 621,222.

H. L. W. BUTTON.
NAIL.

Patented Mar. 14, 1899.

(Application filed Jan. 21, 1898.)

(No Model.)

Fig. 2.

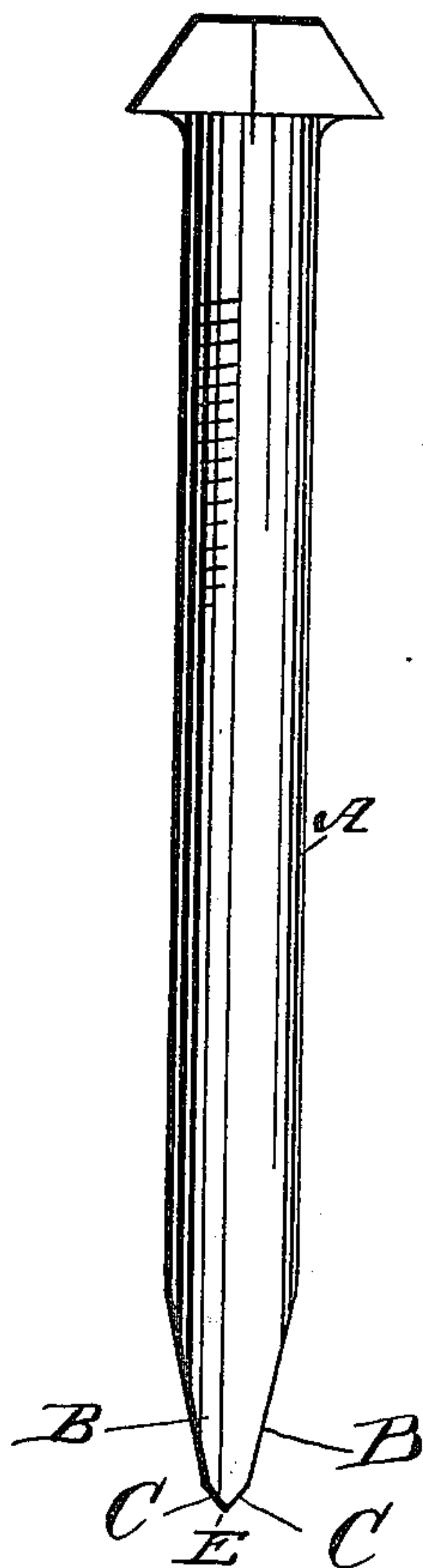
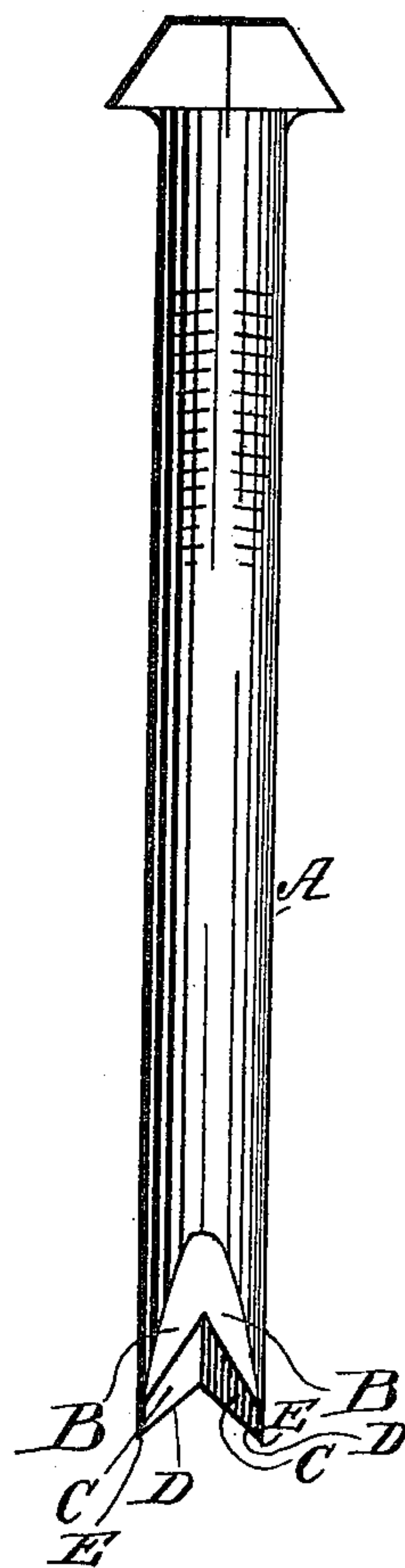


Fig. 1.



Witnesses

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Att'y

UNITED STATES PATENT OFFICE.

HEDLEY LIVINGSTONE WADDELL BUTTON, OF LAUNCESTON, TASMANIA.

NAIL.

SPECIFICATION forming part of Letters Patent No. 621,222, dated March 14, 1899.

Application filed January 21, 1898. Serial No. 667,421. (No model.)

To all whom it may concern:

Be it known that I, HEDLEY LIVINGSTONE WADDELL BUTTON, stationer, a subject of the Queen of Great Britain, residing at Mutual Chambers, Brisbane street, Launceston, in the British Colony of Tasmania, have invented an Improved Nail, of which the following is a specification.

This invention relates to the construction of the points of wire and other nails. Its main object is to provide a nail which will not be so liable to split the wood as is the case with nails having the ordinary tapering or chisel-shaped points.

It consists, essentially, in making the points of wire and other nails with a reverse-V-shaped cutting edge, as illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a wire nail constructed according to this invention, but drawn to an exaggerated scale in order to better illustrate its construction. Fig. 2 is a side elevation of the same nail at right angles to that shown in Fig. 1.

Referring now to the drawings, the reference-letter A designates the body or shank of the nail, which terminates near its lower or entering end in a pair of converging faces B B, said faces being intersected by two pairs of converging faces C C of steeper pitch than the said first-named faces and V-shaped in their cross-sectional arrangement, the pitch of said faces C C being proportioned to cause them to intersect each other and the sides of the nail to form sharp entering points E E and inclined cutting edges D D and to intersect the faces B B and the sides of the nail back of the said entering points E E. The effect of forming this reverse-V-shaped cutting edge at the end of the nail is to bifurcate it and form, as it were, two separate entering points E E, the outer edges or faces of which are parallel with the body or shank of the nail.

I have found in practice that a nail constructed with a point having a reverse-V-shaped cutting edge, as above described, is when driven across the grain not so liable to split the wood into which it is driven, the reason being that the reverse-V-shaped cutting edge draws the fibers together and cuts cleanly through them instead of wedging them apart, as is the case with ordinary nails.

An additional advantage arises from the fact that the ends of the fibers which have been cut are liberated at the apex of the cut-

ting edge, thereby increasing the friction to a maximum, while diminishing the tendency to split to a minimum. In consequence of this effect the ends of the fibers which have been cut are forced downward and apparently act as a number of pawls, which grip the nail, and thus insure its taking a tighter hold in the wood.

An obvious modification of my invention can be used on the larger sizes of nails and would consist in forming the cutting-point with two or even more of these reverse-V-shaped cutting edges, but the outer cutting edges of the V or V's must extend to the extreme diameter of the nail in order to avoid the slightest tendency to wedging.

The machines at present used for the manufacture of wire nails can be utilized for the manufacture of my improved nail, the only alterations which would be required being in the shape of the dies or stamps used for shaping or forming the points and for cutting off the nails from the lengths of wire fed into the machines.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. A nail terminating in a pair of converging faces B, B, intersected by two pairs of converging faces of steeper pitch, V-shaped in cross-sectional arrangement, the pitch being proportioned to cause said two pairs of faces to intersect each other and the sides of the nail to form sharp entering points and cutting edges, and to intersect said faces B, B, and the sides of the nail, back of the said entering points, substantially as and for the purpose described.

2. As a new article of manufacture, a cylindrical wire nail terminating near its lower end in a pair of converging faces B, B, intersected by two pairs of converging faces of steeper pitch, V-shaped in cross-sectional arrangement, the pitch being proportioned to cause said two pairs of faces to intersect each other and the sides of the nail to form sharp entering points, and cutting edges, and to intersect said faces B, B, and the sides of the nail, back of the said entering points, substantially as and for the purpose described.

HEDLEY LIVINGSTONE WADDELL BUTTON.

Witnesses:

EDWARD WATERS,

WALTER CHARLES HART.