

(No Model.)

S. FROST.
SPIKE.

No. 308,837.

Patented Dec. 2, 1884.

Fig. 1.

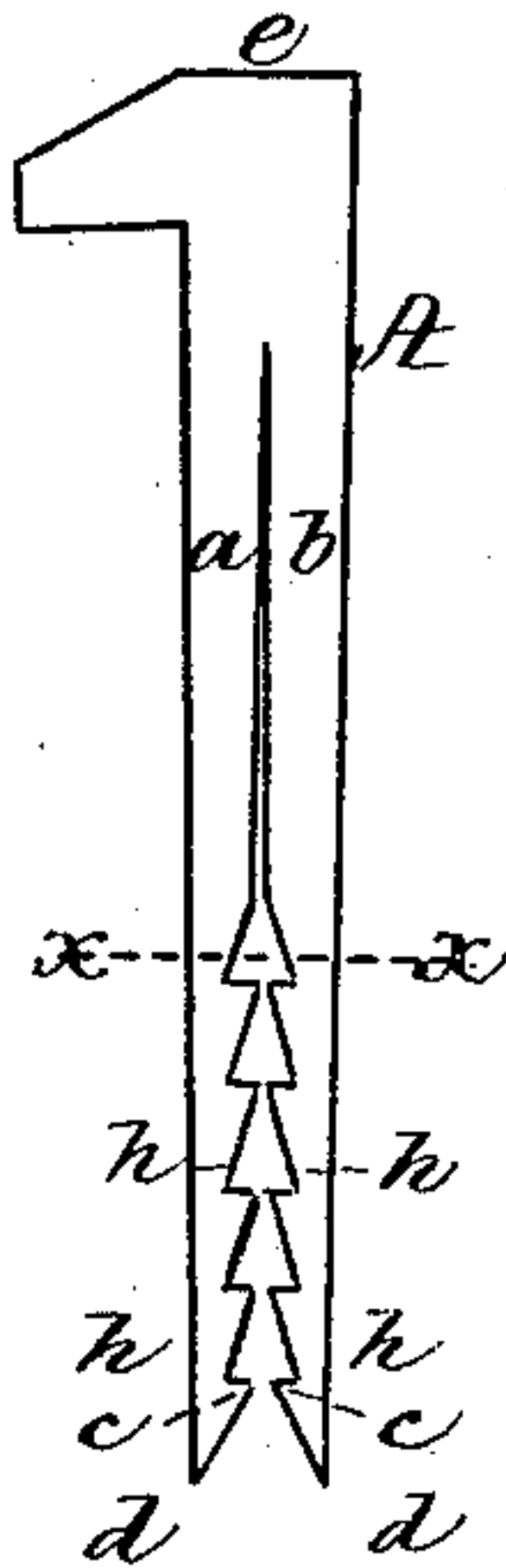


Fig. 2.

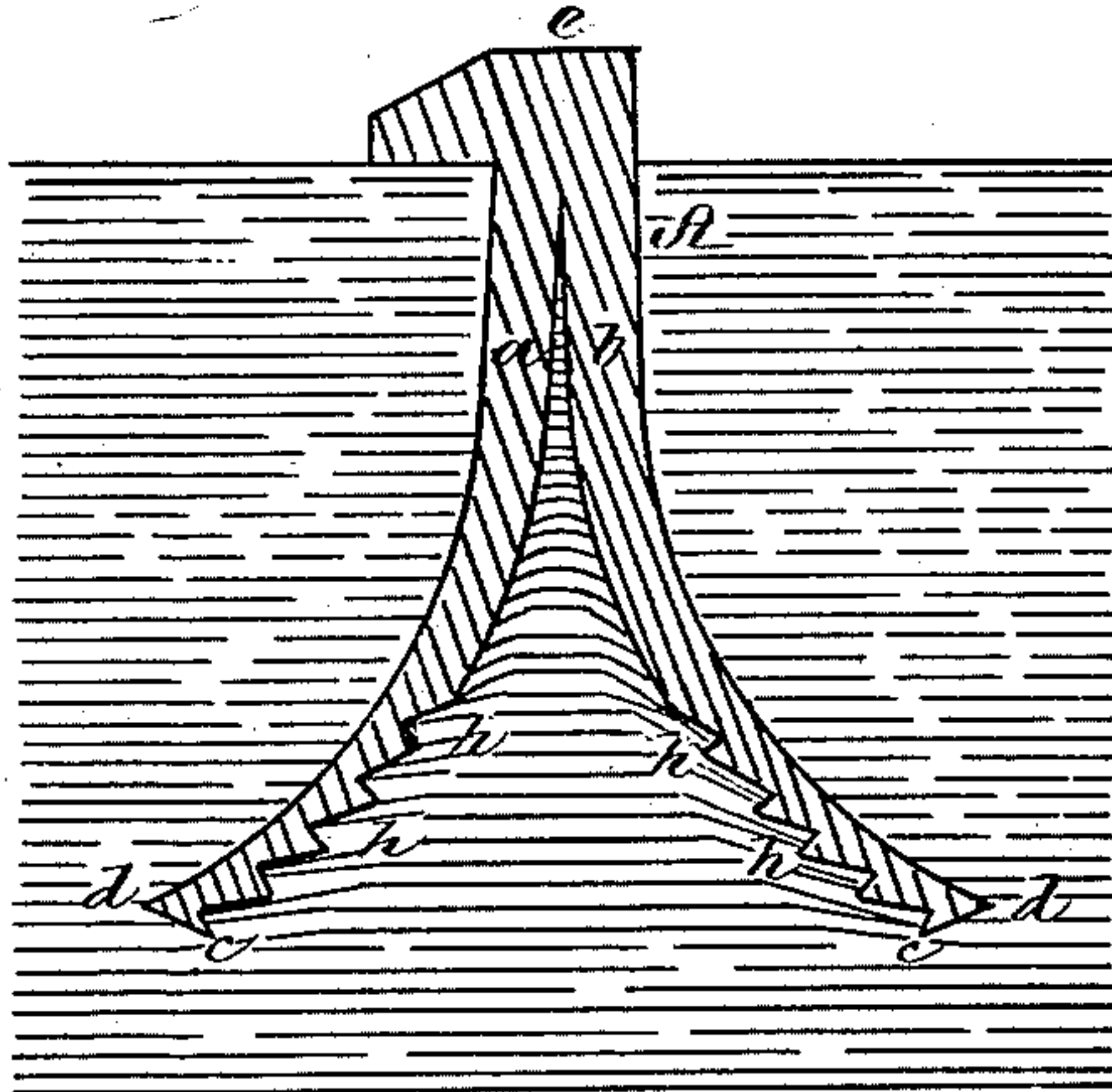


Fig. 3.

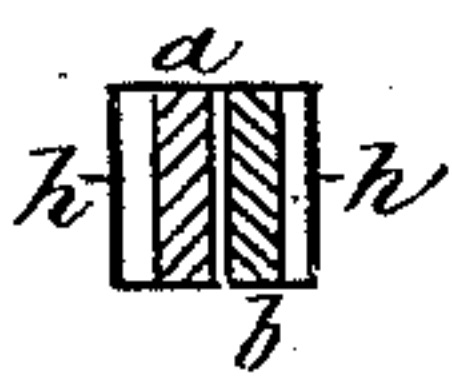


Fig. 4.

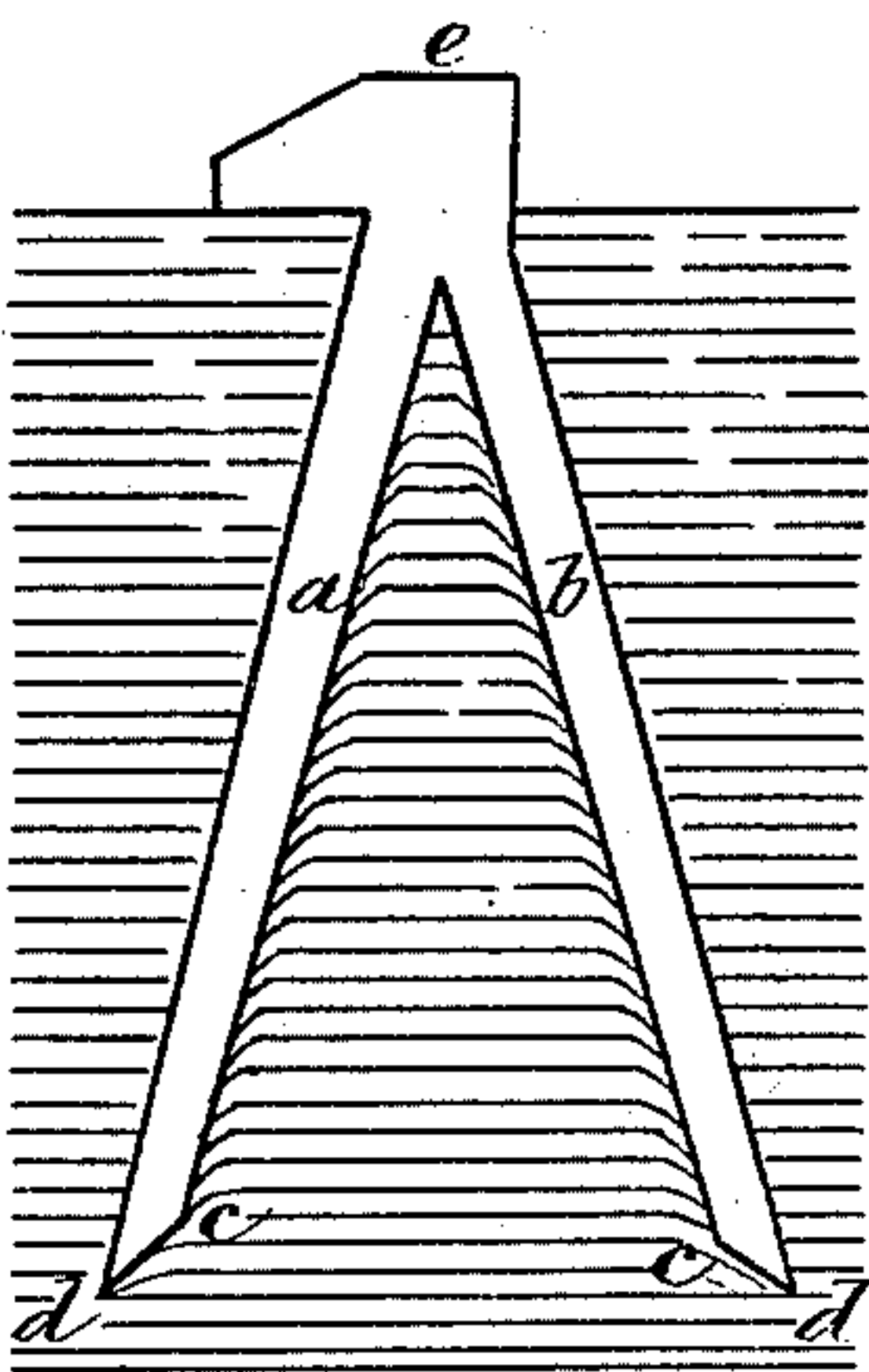


Fig. 5.

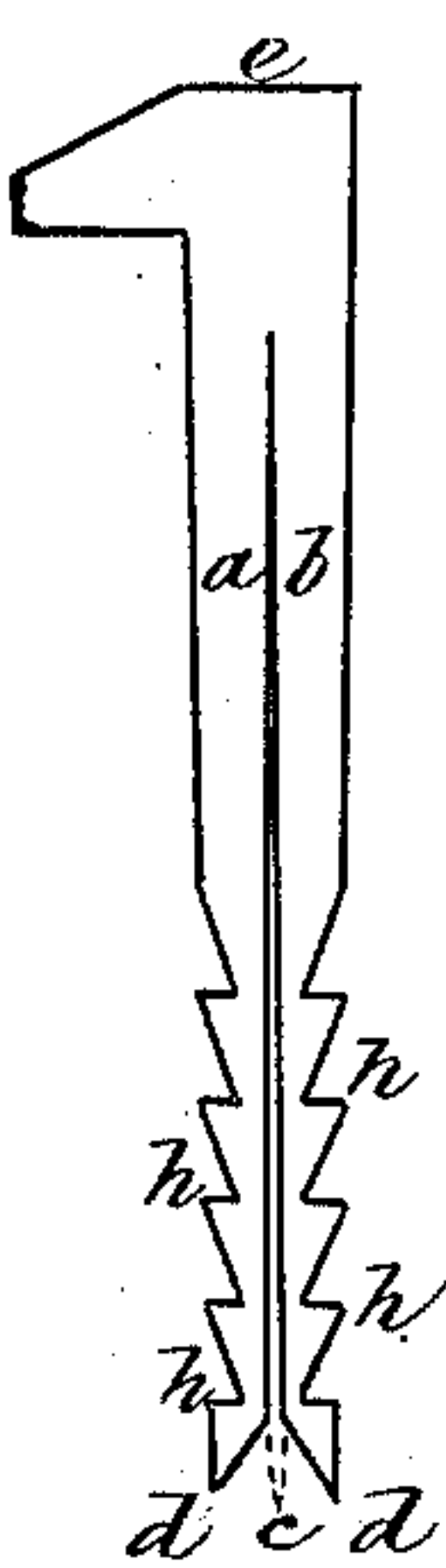


Fig. 6.

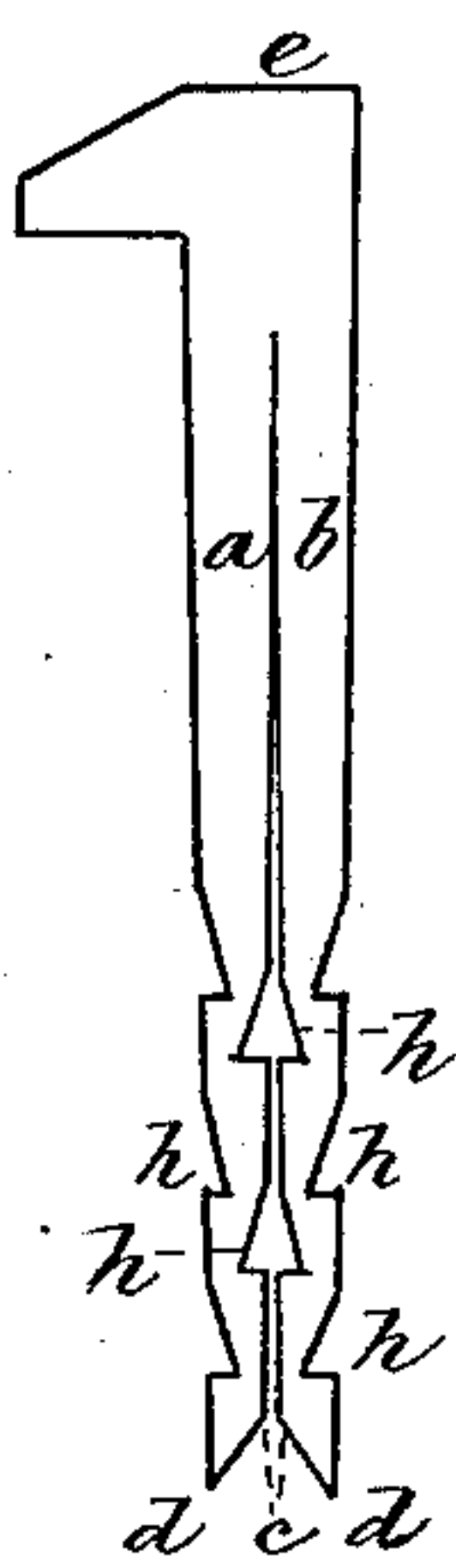


Fig. 7.

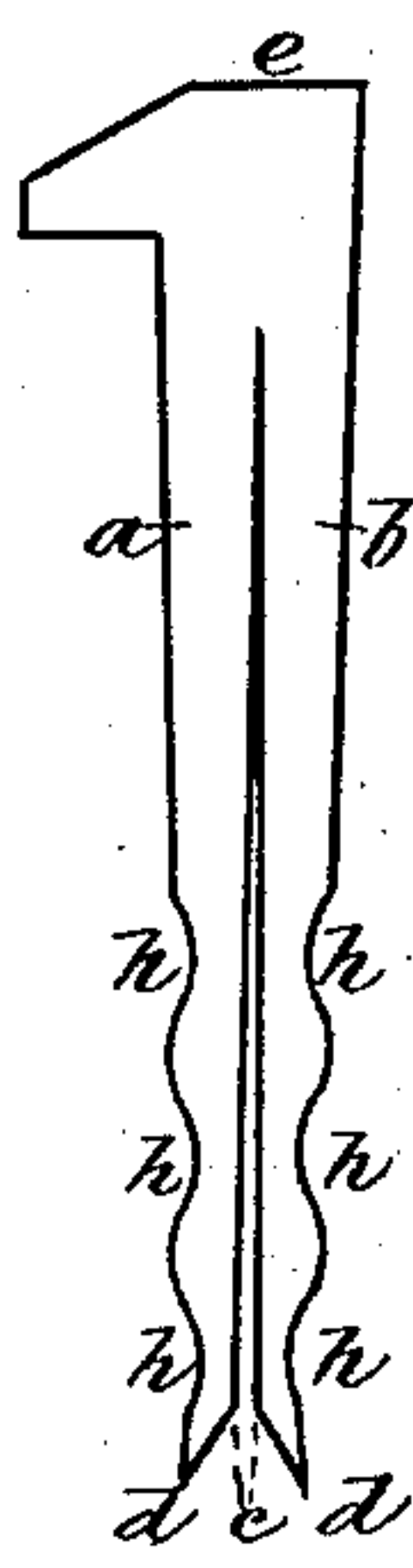
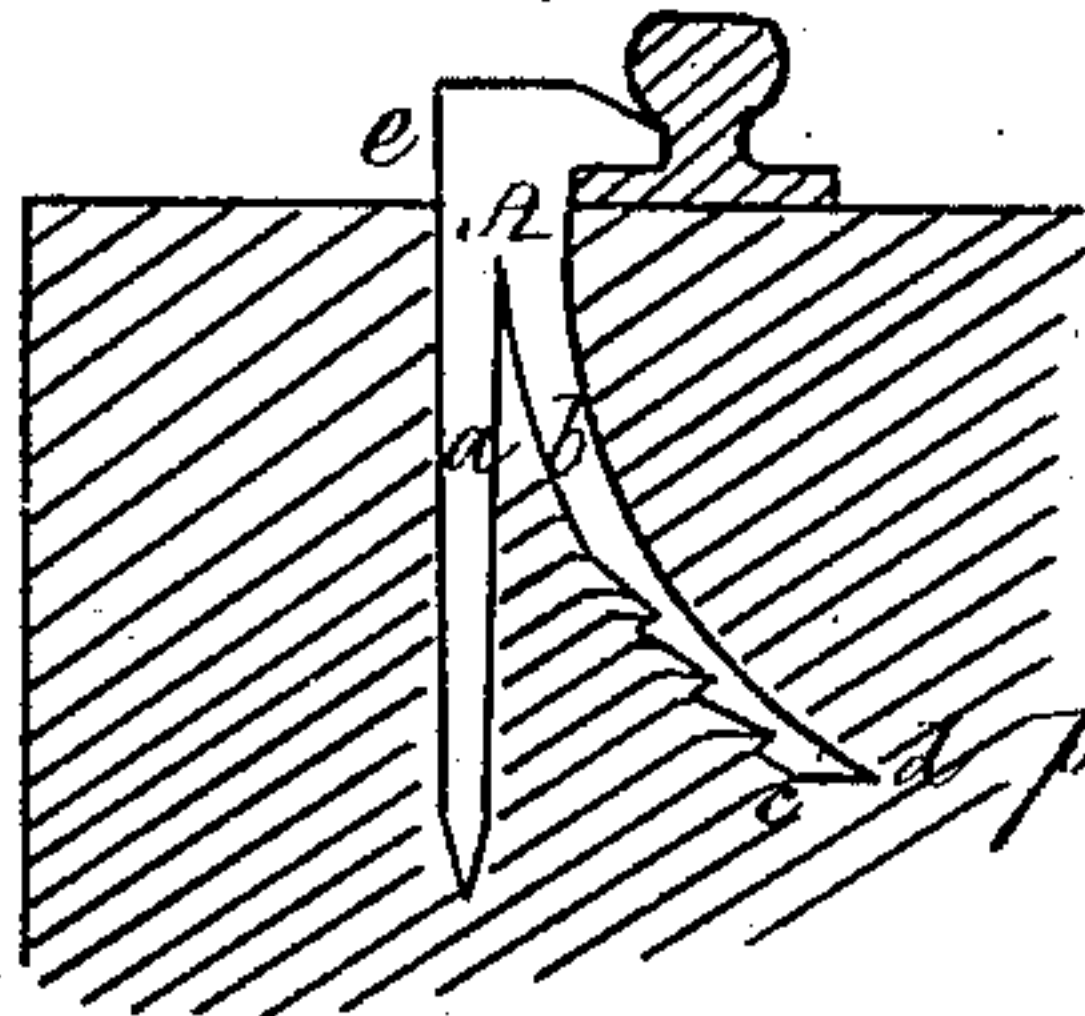


Fig. 8.



Witnesses,
Stephen Stackpole
Hugh Young

Inventor,
Stiles Frost,
per Norman W. Stearns,
Att'y.

UNITED STATES PATENT OFFICE.

STILES FROST, OF BOSTON, ASSIGNOR TO JAMES D. STEVENS AND GEORGE D. WILLIS, BOTH OF SOUTH BRAINTREE, AND HENRY T. McCLEARN, OF DEDHAM, MASS., AND MATTHEW McCLEARN, OF NORTHFIELD, VT.

SPIKE.

SPECIFICATION forming part of Letters Patent No. 308,837, dated December 2, 1884.

Application filed November 30, 1883. (No model.)

To all whom it may concern:

Be it known that I, STILES FROST, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Spikes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is an elevation of a spike of a construction conforming to the preferable features of my invention. Fig. 2 represents the same after being driven into a piece of wood; Fig. 3, a section on the line *x x* of Fig. 1. Figs. 4, 5, 6, 7, and 8 represent slight modifications.

My present invention consists in a spike having its shank divided longitudinally to form a pair of legs, the lower end of one or both of which is tapered or beveled from its inside downward and outward to or nearly to an edge, and having one or both legs provided with one or more notches or scallops either on the inside or outside, or on both the inside and outside thereof, by which construction, when the spike is driven into wood, its legs are caused to separate and the notches or scallops to offer greater resisting-surface in contact with the wood, the reduction in the thickness of the leg or legs where the notch or notches are located enabling them to still further separate or recede from each other, and creating a bond as strong and permanent as though the wood and spike were homogeneous, the result of which is the spike will not become loose from vibration or shrinkage of the wood, and cannot be drawn or displaced without destroying the cohesion of and tearing out the fibers.

To enable others skilled in the art to understand and use my invention, I will proceed to describe the manner in which I have carried it out.

In the said drawings, A represents a spike having its shank divided centrally and longitudinally, so as to form two legs, *a b*, the lower extremity of each of which is beveled from its inside, *c*, downward to its outside, *d*, by which construction, when the spike is driven into a piece of wood, it enters it readily and parts its fibers with a wedge-like action, said legs separating from each other in a vertical plane passing through the center of the head *e* of the spike, (see

Figs. 2 and 4,) which enables it to offer greater resistance to withdrawal than were the shank not divided and of the ordinary construction.

To still further increase the ability of the spike to resist withdrawal, I form one or more notches, *h*, on the inside, Fig. 1, or outside, Fig. 5, of the portion of one or both legs contiguous to its lower or beveled extremity *c d*, or a single notch or a series of notches on both the inside and outside of one or both legs, Fig. 6. One or both legs may be provided with corrugations or scallops *h*, Fig. 7, on its inside or outside, the reduction in the thickness of the lower portion of the legs causing them, when driven into the wood, to take a curved direction away from each other.

Fig. 2 illustrates the curvature and separation of the legs of a spike provided with notches *h* on their insides similar to the construction shown in Fig. 1.

A spike having one or both legs, Fig. 4, beveled downward and outward from *c* to *d*, without the notches or scallops, may be constructed in accordance with my invention, in which case the legs would separate when the spike was driven, but would not be inclined to curve, and would not therefore offer so large an amount of resisting-surface to withdrawal, and consequently I prefer the construction shown in Figs. 1 and 2 in the majority of situations.

In Fig. 8 is represented a form of spike particularly adapted for holding the outer rail of a curved portion of a railroad-track.

I claim—

A spike having its shank divided longitudinally to form two legs, one or both of which has its bottom tapered downward and outward, and is provided with one or more notches or scallops on its inside or outside, or on both its inside and outside, to enable the legs of the spike to separate, and thus afford a greater amount of fiber-resisting surface to oppose the force applied to withdraw it, constructed to operate substantially as described.

Witness my hand this 24th day of November, 1883.

In presence of—

STILES FROST.

N. W. STEARNS,

JAS. W. CHAPMAN.