

J. VENNALL.

Methods of Securing Letters to Stone.

No. 142,421.

Patented September 2, 1873.

Fig. 1.

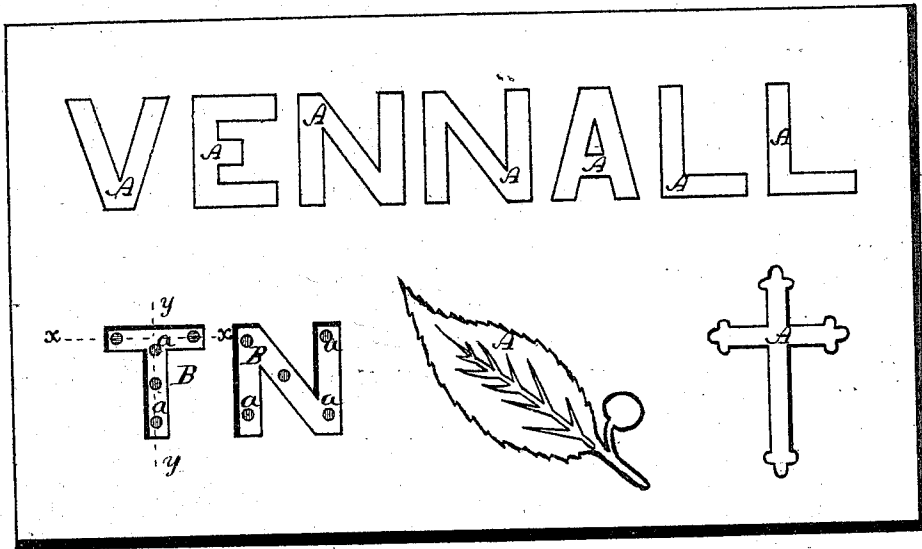


Fig. 2.

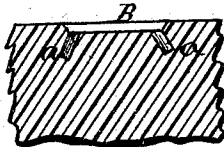
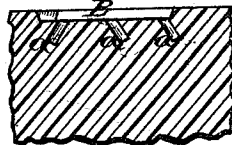


Fig. 3.



Witnesses,

R. D. Smith
W. M. Gallaher.

Inventor,

John Vennall,
Sybil's atty.,
J. S. Brown.

UNITED STATES PATENT OFFICE.

JOHN VENNALL, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN THE METHODS OF SECURING LETTERS TO STONE.

Specification forming part of Letters Patent No. 142,421, dated September 2, 1873; application filed March 21, 1873.

To all whom it may concern:

Be it known that I, JOHN VENNALL, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Method of Securing Letters to Marble and Stone Surfaces; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings making part of this specification—

Figure 1 being a view of a portion of a marble slab, showing my improved mode of lettering the same; Figs. 2 and 3, sections in the lines *x x* and *y y*, Fig. 1.

Like letters designate corresponding parts in all of the figures.

My invention consists in the mode of securing letters of metal, or other equivalent material of a plastic nature, into recesses or cavities of the same form cut into the marble or stone, by first drilling oblique holes in the bottoms of the cavities and then driving the letters into the cavities by the blows of a mallet or hammer until the metal of the letters is caused to fill the oblique holes, thereby retaining the letter-blocks against coming out, without the application of considerable extracting force. The outer surface of the letters is then worked off and finished in any desired manner.

In the drawings, A A represent the metallic letters, generally of lead or an alloy containing lead, so as to give it sufficient plasticity for the

purpose. These letters are stamped or otherwise formed in shape. Cavities B B are then cut in the marble surface deep enough to receive the desired thickness of letters. Then a sufficient number of oblique holes, *a a*, are bored or drilled in the marble or stone below the bottom of the cavities, substantially as shown in Figs. 2 and 3, the number of holes to be sufficient to securely retain the letters in the cavities. The letters A A are then inserted in their corresponding cavities and driven in with a mallet or hammer with sufficient force to cause the metal of the letters to be forced into the holes *a a* by the plasticity thereof. The surface of the letters is then trimmed away flush with the surface of the marble or stone and gilded or otherwise finished to suit the taste. They cannot then be removed without the application of considerable force, for the reason that the metal in the holes cannot draw out directly.

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

The method of securing letters to marble or stone surfaces by making them of a plastic metal or material and driving them into corresponding cavities in the marble, so as to fill oblique holes in the bottoms thereof, substantially as and for the purpose herein specified.

JOHN VENNALL.

Witnesses:

ELISHA BASSETT,

THOMAS PALMER HIORUS.