

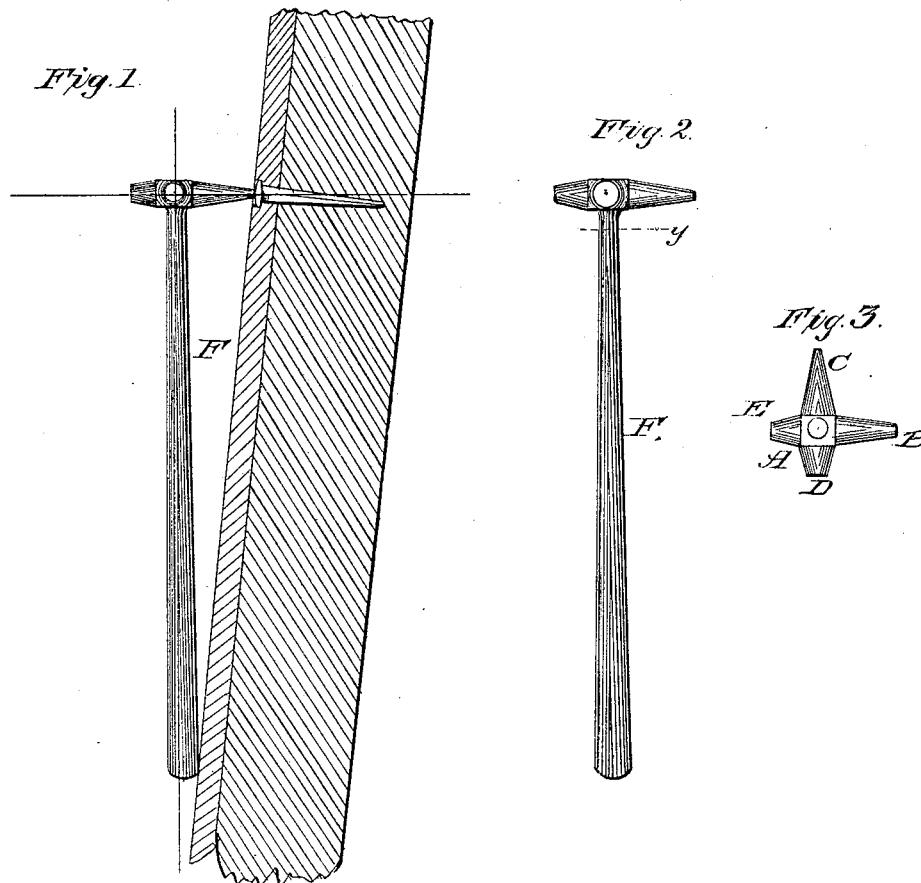
(No Model.)

J. J. JOHNSTON.

NAIL SET.

No. 266,834.

Patented Oct. 31, 1882.



WITNESSES

Wm. L. Dietrich,
Geo. W. Slockett,

INVENTOR

James J. Johnston

UNITED STATES PATENT OFFICE.

JAMES J. JOHNSTON, OF COLUMBIANA, OHIO, ASSIGNOR TO THE UNITED STATES IMPROVEMENT COMPANY, (LIMITED,) OF SAME PLACE.

NAIL-SET.

SPECIFICATION forming part of Letters Patent No. 266,834, dated October 31, 1882.

Application filed February 11, 1882. (No model.)

To all whom it may concern:

Be it known that I, JAMES J. JOHNSTON, of Columbiana, in the county of Columbiana and State of Ohio, have invented a certain new and useful Improvement in Nail-Sets; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to an improvement in nail-sets; and it consists in making the set cruciform, with two setting-points and two hammer ends, with a handle, as will hereinafter more fully and at large appear.

To enable others skilled in the art with which my invention is most nearly connected to make and use it, I will proceed to describe its construction and operation.

In the accompanying drawings, which form part of my specification, Figure 1 is a side elevation of my improvement in nail-sets, representing its position for setting a nail. Fig. 2 is a side view of the nail-set. Fig. 3 is an end view.

Reference being had to the accompanying drawings, A represents the nail-set, which is cruciform, having points B C for setting the nail and hammer ends D E, and is furnished with a handle, F, which may be constructed of wood; but preference is given to the construction of the nail-set, as a whole, of malleable cast-iron, and subsequently converting the nail-set A into steel by the following process, viz: embedding the handle F in clay placed in an iron vessel to about the line *y*, and then surrounding the nail-set with the following mixture: iron scales (oxide of iron) and pulverized wood-charcoal, equal parts of each, which, being thoroughly mixed together, is packed

around the nail-set A. An iron lid is then placed upon the vessel and firmly secured in place, with the joints carefully luted. The vessel is then placed in an oven and subjected to a high degree of heat for twenty-four hours, after which it is withdrawn and placed in an oven of much less temperature, and finally allowed to gradually cool, after which the sets are removed, properly cleaned, and the set heated to a cherry red and tempered by immersing the points A B and the hammer ends D E in a strong brine formed by dissolving salt in water, by preference using "soft" water and a pure salt. By the means and process described the set A will be converted into steel, and the points B C and hammer ends D E tempered to any desired degree of hardness.

The nail-set hereinbefore described is intended more particularly for setting nails in weather-boarding and finishing in house-carpentry, which setting of nails, as a rule, is done after the building is finished, prior to painting. By the use of said nail-set the workman is enabled to set nails with great rapidity and without the danger of injuring the hand and fingers holding the nail-set, as in the ordinary construction.

Having thus described my improvement, what I claim is—

A cruciform nail-set having two points for nail-sets and two hammer ends and a handle, constructed substantially as herein described, and for the purpose set forth.

JAMES J. JOHNSTON.

Witnesses:

T. D. D. OURAND,
DE WITT C. ALLEN.