

G. STARKS.
Coating Tacks, Nails, and Screws to Prevent
Corrosion and to Color Them.
No. 144,712. Patented Nov. 18, 1873.

Fig. 1



Fig. 2



Fig. 3



Witnesses,

W. J. Cambridge
H. C. Tenhumberg

Inventor

George Starks
per his Attorneys
Stephen M. H. Stearns

UNITED STATES PATENT OFFICE.

GEORGE STARKS, OF TAUNTON, MASSACHUSETTS, ASSIGNOR TO THE
ALBERT FIELD TACK COMPANY, OF SAME PLACE.

IMPROVEMENT IN COATING TACKS, NAILS, AND SCREWS, TO PREVENT CORROSION, AND TO
COLOR THEM.

Specification forming part of Letters Patent No. 144,712, dated November 18, 1873; application filed
September 25, 1873.

To all whom it may concern:

Be it known that I, GEORGE STARKS, of Taunton, in the county of Bristol and State of Massachusetts, have invented an Improvement in Tacks, Nails, Screws, &c., whereby they are prevented from rusting, 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 a longitudinal section through a tack having a coating applied thereto in accordance with my invention. Fig. 2 is a transverse section through the same. Fig. 3 is a longitudinal section through a nail covered with my coating.

My invention consists in a novel process for coating tacks, nails, or screws, so as to avoid oxidation.

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.

I take a tack or nail, *a*, as it comes from the machine, and heat it sufficiently to enable the coating *b*, when applied, to bake thereon and permanently adhere thereto, so that when driven into a piece of wood or other material it will be completely incased thereby, and be protected from the action of air or moisture, thus precluding the possibility of rust being formed.

To give the tacks or nails a black coating, I first dip them, when hot, into a composition consisting of one pound (1 lb.) of lamp-black, one (1) pint of boiled oil, and three (3) pints of naphtha, thoroughly mixed and incorporated together, made thin when required for use by the addition of one-half ($\frac{1}{2}$) gallon of naphtha; after which they are strained and placed in an oven or over a fire, where they are subjected to a heat of about four hundred and fifty (450°) degrees Fahrenheit, which causes the coating to slightly penetrate and bake upon their exterior. The tacks or nails *a* are now given a second coating, by dipping them

into a composition consisting of one (1) quart of the solution previously mentioned and one-half ($\frac{1}{2}$) pint of japan, made thin when required for use by the addition of one (1) pint of naphtha, after which they are removed therefrom and allowed to strain, when they are again subjected to a heat of about four hundred and fifty (450°) degrees Fahrenheit, a thin hard shell or enamel being thus given the tack or nail, which permanently remains thereon, and serves to shield it from the influence of moisture or the atmosphere, and prevents the formation of rust.

Any desired color may be given to the coating—for instance, red, green, brown, &c.—by mixing one pound of either color in its dry state with one-half ($\frac{1}{2}$) a pint of boiled oil and one-half ($\frac{1}{2}$) a pint of naphtha, reduced when required for use by adding another one-half ($\frac{1}{2}$) pint of naphtha, into which composition the tacks or nails are dipped for a first coating, when they are strained and submitted to a heat of about two hundred (200°) degrees Fahrenheit. A second coating, consisting of one (1) pint of the last-mentioned composition and one (1) gill of varnish mixed together, and made thin by the addition of one (1) gill of naphtha, is now applied, and, after straining, the tacks or nails are brought to a heat of about two hundred (200°) degrees, as before.

A transparent substance may be applied to the tacks or nails, thus enabling them to preserve their original color, if desired.

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

1. The process herein described for treating tacks, nails, and screws, to prevent oxidation.

2. As a new article of manufacture, a tack, screw, or nail coated as above described, to prevent oxidation.

Witness my hand this 17th day of September, A. D. 1873.

GEORGE STARKS.

In presence of—

P. E. TESCHEMACHER,
W. J. CAMBRIDGE.