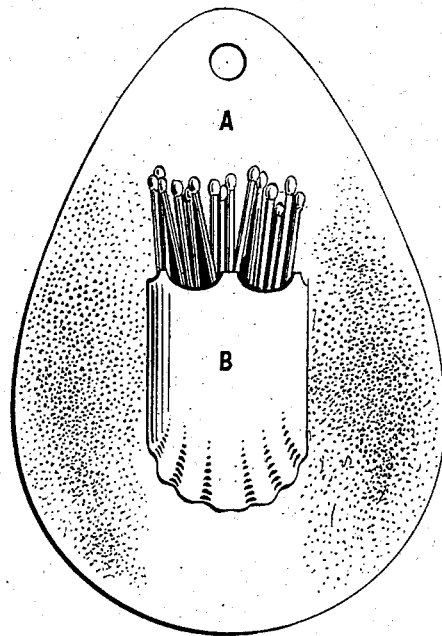


W. A. MORSE.  
Match-Box.

No. 205,202.

Patented June 25, 1878.



WITNESSES:

*Edw. H. Johnson*  
*A. J. Wilkinson*

INVENTOR:

*W. A. Morse*

# UNITED STATES PATENT OFFICE.

WILLIAM A. MORSE, OF PHILADELPHIA, PENNSYLVANIA.

## IMPROVEMENT IN MATCH-BOXES.

Specification forming part of Letters Patent No. **205,202**, dated June 25, 1878; application filed May 25, 1878.

*To all whom it may concern:*

Be it known that I, WILLIAM A. MORSE, of the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Match Mats and Boxes, of which the following is a specification:

This invention has for its object the production of a frictional coating on match mats or boxes that will be ornamental and far more durable than any heretofore applied, the same being produced on iron by the use of enamel and ground quartz, which leaves a surface that quickly takes hold and fires the match.

The following is a full and clear description of the same, reference being had to the accompanying drawing, making a part of this specification.

I am aware that frictional surfaces have been long in use on such boxes, consisting of quartz held to its place by the use of glue, varnish, or like perishable materials, which are affected by the atmosphere, fill up with dirt, cannot be cleaned, and soon crumble off.

A is a match-mat; B, a box attached to the same for holding matches. They are both made of thin sheet-iron and coated with enamel, which is applied in the usual way by dipping the article into it and melting it on by heat in an oven or muffle, the process being familiar to enamellers. After the metal has been dipped in the enamel or glazing-liquid to coat it, and before the same is dried, I apply to that part of the surface where friction is desired a thin sprinkling of quite fine quartz or other similar material that will stand the heat of the muffle without vitrifying. This embeds itself into the semi-liquid enamel, and when thor-

oughly dried all is put into an enameler's oven and brought to a sufficient heat to vitrify the enamel on the iron, while the quartz remains solid and firmly set in the enamel with rough projecting points, as shown on the mat A. These projecting points produce a rough or frictional surface, to be used for igniting matches.

The quartz may be applied after the enamel has been burned on and fastened or set by a second heat, or it may be mixed directly with the enamel before applying it; but the described manner produces the most satisfactory result.

The great advantage derived from my improvement is utility and beauty of finish. A surface of iron covered and finished as described may be used for an indefinite period, and kept clean by washing without injury to the frictional surface.

I do not confine my invention to any particular kind or style of match mat or box, as iron mats may be thus prepared and applied to wood or paper boxes, or mats used without boxes; but

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

A metallic enameled match mat or box with a rough or frictional surface, consisting of ground quartz held in position by the enamel, substantially as specified, and for the purpose set forth.

WM. A. MORSE.

Witnesses:

C. B. WILKINSON,  
A. J. WILKINSON.