

## UNITED STATES PATENT OFFICE.

HENRY A. COUSINS, OF NEW YORK, N. Y.

ART OF MANUFACTURING INLAID WORK FOR DECORATIVE PURPOSES.

SPECIFICATION forming part of Letters Patent No. 488,541, dated December 27, 1892.

Application filed October 8, 1891. Renewed May 24, 1892. Serial No. 434,174. (No specimens.)

*To all whom it may concern:*

Be it known that I, HENRY A. COUSINS, a subject of the Queen of Great Britain, and a resident of New York, county of New York, and State of New York, have invented certain new and useful Improvements in the Art of Manufacturing Inlaid Work for Decorative Purposes, of which the following is a specification.

- My invention while relating to the manufacture of inlaid designs and pictures for domestic and ecclesiastical decorations, has reference more particularly to the manner of forming, locating, or building up the outlines of the designs or pictures which in the finished article constitute the inlaid portions. In the forming, locating, or building up of these designs or pictures, as heretofore practiced, the metal bands or strips forming the outlines of the designs or pictures have been applied to a backing in sections, the location and securement in place thereof requiring more or less care, skill and patience according to the quality of the work demanded.
- The prominent objects of my invention are to simplify and improve the mode of arranging, locating or producing the outlines of the design or picture, so that the same may be accomplished accurately and quickly, and thereby facilitate and cheapen the manufacture, while at the same time preserving all the required excellence of the finished work. All these objects and other advantages consequent and incidental I attain by providing a peculiar matrix, and casting or molding the outline material therein, observing other conditions of proceeding as follows:—

- To produce the matrix, I cover a plate of glass or other suitable material with wax, molding clay, plaster of paris, or other appropriate plastic material to the depth of three sixteenths of an inch or thereabout. Upon the surface of this material I produce the desired design or picture in outline by drawing, pouncing or transferring in any known way. I next cut through the outlines with a suitably shaped modeling or engraving tool until the glass or other backing material is exposed and remove all the outlines and all the material from the cuts. Into the channels thus formed and over all the surface I press a composition composed of peroxide of manganese,

one part; asbestos or pulverized marble, one and one half parts, and oxide of zinc, one part, which are all mixed together into a stiff mass with silicate of potash. After this is pressed in and upon the matrix and has become thoroughly hard I remove the wax or other plastic material and the outlines of the design or picture will be raised in bands or lines above the back to the extent of about three sixteenths of an inch, forming what may be called a casting. Into the cells or cavities of this casting I then fill and press the colored cements necessary to complete the design and then allow time for them to harden. When hard, the panel, slab, or other article of whatever character may be polished in the same way that marble is ordinarily polished, care being taken not to grind the slab or article below where the outlines appear.

By observing the foregoing directions the outlines are molded and must as a matter of course correspond in the degree of excellence with the work upon the matrix.

The first casting after becoming hardened may be removed from the glass or other backing and serve as a pattern from which other matrices to any number may be produced in rapid succession by simply filling the cells and cavities therein with the proper materials and then withdrawing the casting, allowing the matrix thus formed to harden, and so on, thereby permitting of the duplication of the design or picture with very little labor in arranging and fixing the outlines. The work is thus produced more accurately, cheaply and rapidly than is possible by the older methods referred to above, and all the purposes and objects of the invention alluded to easily accomplished.

The improved method is applicable to all varieties of inlaid work of the class above pointed out and to all shapes of articles which admit of molding. In producing different shapes the expediency of dividing the matrix into sections will readily suggest itself to any who are familiar with the art.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent of the United States is,

1. In the production of inlaid work of the character herein set forth, the described method of forming and locating the outline strings,



which consists in molding them in a previously prepared matrix, substantially as explained.

2. The herein described method of producing inlaid work, the same consisting in preparing a matrix of suitable material with the outlines of the design or picture cut therein, casting the outlines in and on the matrix, removing the matrix and filling the cells or cavities in the casting with proper colored cem-

ents, and grinding and finishing the surface, so essentially as explained.

In testimony whereof I have hereunto set my hand this 3d day of January, 1891.

HENRY A. COUSINS.

Witnesses:

ROBT. W. WATERBURY,  
WM. H. APPLETON.