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A. M. MONTGOMERY.  
METHOD OF MAKING SIGN PLATES.

APPLICATION FILED AUG. 15, 1902.

NO MODEL.



Attest:

*J. Middleton*

*James McFar*

*Inventor,*  
*Arthur M. Montgomery*

*Richard J. Co.*

*by*

*Attys*

# UNITED STATES PATENT OFFICE.

ARTHUR M. MONTGOMERY, OF CHICAGO, ILLINOIS.

## METHOD OF MAKING SIGN-PLATES.

SPECIFICATION forming part of Letters Patent No. 774,772, dated November 15, 1904.

Application filed August 15, 1902. Serial No. 119,797. (No model.)

*To all whom it may concern:*

Be it known that I, ARTHUR M. MONTGOMERY, a citizen of the United States, residing at Chicago, Cook county, Illinois, have invented certain new and useful Improvements in Methods of Making Sign-Plates, of which the following is a specification.

My invention relates to an improved method or process of making sign or advertising plates; and the object of the invention is to provide a metal plate which shall have the advertising or sign characters permanently carried thereby and which shall be unaffected by the action of the elements.

I have illustrated the invention in the accompanying drawing, in which the figure represents a face view of a sign made according to my process.

In carrying out this process I take a plate of aluminium and coat the surface with a material which is sensitive to light in any suitable manner. Upon this sensitive surface I print from any suitable negative or positive bearing the advertising or other sign material.

After the print is made on the metal the sensitized face of the plate is covered with lithographic ink, using a composition roller. The plate is then put into a pan of water and with a tuft of cotton the ink washed off the surface of the plate where it has not been affected by the light, leaving the metal exposed, the ink staying on the surface where the light penetrates the negative and forms a support for the dragon's-blood, &c., making the resist.

The surface of the plate is then dusted over with a suitable material adapted to form a resist—such, for instance, as dragon's-blood, asphalt, or rosin. The plate is then etched by a suitable acid, which attacks the portion not covered by the resist and eats into the

aluminium surface. The plate is then suspended in an electroplating-bath and electroplated with copper, zinc, brass, or other suitable metal differing in color from the aluminium which forms the base.

It will be understood, of course, that the copper or other plating metal is deposited only on the etched portions.

After the electroplating has proceeded to a suitable degree the plate is removed from the bath and a copper or other plating metal blackened and the resist cleaned off. This leaves the aluminium A bright and the etched parts of the plate coated with blackened copper or like metal, as shown at B.

As the aluminium is a metal which will not oxidize by exposure to the elements and as the plated portions only tend to become blacker by such exposure, it will be seen that I provide an advertising plate or sign the distinguishing features of which will only become more pronounced by time and the actions of the elements.

Having thus described my invention, what I claim is—

As a new article of manufacture a sign or advertising plate consisting of a background of one metal with an advertising design of a contrasting metal, one of said metals being an oxidizable metal and the other a non-oxidizable metal whereby on exposure to the atmosphere the action of the elements will make the contact between the design and background more pronounced.

In testimony whereof I affix my signature in presence of two witnesses.

ARTHUR M. MONTGOMERY.

Witnesses:

VERNON J. EVERTON,  
J. C. STEVENS.