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## ALIEN PROPERTY CUSTODIAN

### PROCESS OF MAKING ALUMINIUM OR ITS ALLOYS ANTI-CORROSIVE AND COLORING THE SAME

Kenzo Nagata, Naka-ku, Yokohama, Japan;  
vested in the Alien Property Custodian

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It is known to cause a water-soluble dyestuff to penetrate the oxidized coating of aluminium obtained by subjecting the aluminium or its alloys used as anode to so-called electrolytic anodic treatment in an electrolytic cell containing an electrolyte and thus to be adsorbed by it and next to attach said dyestuff closely in the structure of the oxidized coating by treating the latter with vapour and thus colour the coating. However, the letters, figures, etc. painted with said water-soluble dyestuff become disfigured during the treatment of the coating and consequently do not produce desired lines distinctly. Further, when more than two colors are used, it is not only inevitable that their borders should become indistinct, but also the water-soluble dyestuff itself is weak against moisture, the sun, etc. Now, the present invention has improved the known process to obviate the above defect in coloring oxidized coating of aluminium or its alloys and relates to a process of colouring said coating suitably with one or more colours by employing a solution prepared by dissolving water-insoluble oil colours especially in a rapidly drying solvent, for example, benzol. That is to say, when the oxidized coating is coloured with the solution prepared by dissolving a water-insoluble oil color having a suitable colour in a rapidly drying (volatile) solvent, for example, benzol or alcohol, the solution is adsorbed quickly into the structure of the coating, while at the same time the solvent volatilizes and dries, so that if almost at the same time the same or other colour is applied freshly or desired letters or figures are painted with one or more colours, such colours do not mix together or spread and therefore a clear colouring may be obtained. If the thus-coloured coating is treated with superheated steam, its structure

may not only be made compact, but the oil colour which has penetrated the structure and has been adsorbed by it attaches tightly to the coating, thus strengthening the latter both physically and chemically.

The following is an example of performing the present invention:

Using as anode an aluminium plate or a vessel made of an alloy containing more than 90% of aluminium, subject an aqueous solution of 2% oxalic acid to electrolytic operation for 1 to 2 hours at about 25° C. with 30-volts direct current and 100-volts alternate current. When an aqueous solution of chromic acid is employed as electrolyte, it must have the concentration about 3% at about 40° C. with 40 volts-direct current.

Paint with a writing brush or sprayer figures of one or more colours upon the surface of the vessel thus subjected to electrolytic operation, using a solution prepared by dissolving 10-20% of red, yellow, blue or black oil colour or their mixture in benzol or absolute alcohol. Then, seal the vessel up into an autoclave and treat the same for 10 to 30 minutes with 50 to 100 lbs. of superheated steam.

#### Examples of the dyestuffs used

Colour	Dyestuff
Red	Sudan Red G. G.
Blue	Ore Blue T. A.
Yellow	Sudan Yellow G. R.
Black	Sudan Black B.
Brown	Sudan Brown 3B.
Orange	Sudan Orange R.

KENZO NAGATA.