

UNITED STATES PATENT OFFICE.

EDWARD J. W. BURRAS, OF PARISH OF LAMBETH, ENGLAND, ASSIGNOR
OF ONE-HALF HIS RIGHT TO GEORGE G. BREWER, OF BALTIMORE, MD.

IMPROVEMENT IN METAL-COATING COMPOSITIONS.

Specification forming part of Letters Patent No. **158,902**, dated January 19, 1875; application filed
December 26, 1874.

To all whom it may concern:

Be it known that I, EDWARD J. W. BURRAS, of Lambeth parish, England, have invented certain new and useful Improvements in Compounds for Coating and Preserving Metal Surfaces, of which the following is a specification:

My invention relates to a new and improved composition for coating metallic surfaces, to protect the same against the action of moisture and various corrosive agents, which may be readily applied with a brush as a paint, and which will set and form a protective coating which will stand the ordinary usage to which such surfaces may be subjected, but which may be conveniently removed, when desired, by means of naphtha, turpentine, or equivalent substances, as will be fully hereinafter set forth.

My invention is particularly designed for the protection of all bright metallic surfaces liable to oxidation or corrosion, where it is not desirable to apply a permanent paint, such as the metallic portions of sea-going vessels, silver or plated ware, and other metallic articles that are to be laid aside for a time, which are required in their original bright condition when in use.

My invention consists in a composition of chalk or whiting, china clay or kaolin, calcined sulphate of iron, copper, zinc, or other well-known drier, refuse fat, and linseed-oil, the whole being brought to proper consistency by means of naphtha, turpentine, or equivalent diluent, the solid ingredients being finely comminuted by grinding, and the whole thoroughly incorporated by means of heat.

The above ingredients may be mixed in various proportions, according to the nature of the surfaces to which it is to be applied, and the temperature to which the articles may be subjected. For most purposes the following proportions will answer effectively, viz:

To a ton of two thousand pounds, twelve hundred pounds of chalk or whiting; ninety-nine pounds of china clay or kaolin; one pound of sulphate of iron or other drier; seven hundred pounds of refuse fat.

The chalk, kaolin, and sulphate of iron, copper, or zinc are first finely ground, and the fat melted and rendered, so as to separate it from the membranous and other useless portions. The ingredients are then thoroughly incorporated by the aid of heat, and mixed with linseed-oil and naphtha to reduce the composition to proper consistency. The fat employed is the ordinary refuse fat or cuttings known in the market as "rough stuff," which is only fit for the manufacture of the inferior varieties of soft soap, and which can be obtained at a small expense.

The composition as thus formed is, at ordinary temperatures, of about the consistency of the ordinary glaziers' putty. It may be packed in canisters of any desired size—say, twenty-eight pounds, for instance—or may be formed into bars or cakes, and placed in the market.

It is applied by heating it to about 212° Fahrenheit, by placing it in the can or other suitable vessel until melted, and then laid on by means of a brush, or in any other convenient manner. In a few hours it will set, forming a coating having the appearance of white paint, which will effectually prevent injury to the metal from oxidation or the action of corrosive agents. It is a most effective coating for metallic sea-going vessels, and may be applied to the bottoms of the same, and the various other metallic parts. Vessels thus coated will be entirely free from barnacles and other parasites which usually collect on their bottoms during a voyage, and all the metallic parts of the same will be preserved in their original bright condition, it only being necessary on arrival at port to rub off the composition by means of a rag saturated with naphtha, turpentine, or equivalent substance.

Various metallic articles which are put by for use can be maintained in a bright condition for any period of time by coating with the composition, such as silver ware and plated ware, for instance, as no corrosion can possibly take place, as the compound resists the action of acids and all the ordinary chemical reagents.

To restore them to their original beauty and

polish, it is only necessary to remove the composition, as above described, which can be done at very little expense, and in a short time.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A composition, consisting of chalk, china clay or kaolin, sulphate of iron, copper, or zinc, refuse fat, and linseed-oil or naphtha,

substantially as described, for coating various metallic surfaces to prevent oxidation and corrosion, as set forth.

In testimony that I claim the foregoing I have hereunto set my hand.

EDWARD J. W. BURRAS.

Witnesses:

JAMES L. NORRIS,

GEO. W. CUSHING, Jr.