UNITED STATES PATENT OFFICE.

IRA HOLLIS, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN GLAZINGS FOR EARTHENWARE.

Specification forming part of Letters Patent No. **212,696**, dated February 25, 1879; application filed December 30, 1878.

To all whom it may concern:

Be it known that I, IRA HOLLIS, of the city of Philadelphia, State of Pennsylvania, have invented a certain new and Improved Glazing for Rockingham and Yellow Ware; and I do hereby declare the following to be a full, clear, and exact description of the same.

The nature of my invention will be fully set forth in the following specification and claims.

My invention is designed to increase the luster, homogeneousness, and durability of the glazing used on earthenware, more especially that of yellow and Rockingham ware.

To enable others skilled in the art to make and use it, I will describe it more fully.

The object to be glazed is first molded out of clay, placed in the kiln, and subjected to the preliminary baking or burning. When this is completed the object thus treated becomes what is called the "biscuit," and it has a dead porous surface.

Now, the proportions of the compound which I use for a glazing can be much varied, whether it is a yellow or a brown glazing which is to be produced.

In practical operation, to produce a yellow glazing I use the following substances in about the proportions named. The proportions given are in pounds, viz: Spar, forty; litharge, one hundred and thirty; flint, thirty; clay, twenty-four. The latter is almost invariably Albany clay, which is of a dark color. These substances should be finely powdered before mixing. They are then well mixed together in water until the whole mass is of a thin pasty consistency. I then dip the biscuit or object previously burned into this paste, thoroughly coating it. The biscuit is then placed on a board to permit the superfluous compound or paste to drain off, and it is allowed to remain there until it is dry. The object is then placed in the kiln again for a second burning. Under the great heat of the kiln the pasty coating fuses and runs, and spreads over every part of the biscuit in about an even layer, the result being a rich bright glazing, very hard, homogeneous, not liable to crack or chip, and of great durability. This glazing will be yellow.

If, upon the other hand, it is desired to produce a brown or Rockingham ware glaze, I use nearly the same ingredients, in about the following proportions, in pounds, viz: Spar, thirty; litharge, one hundred; flint, twenty; Albany clay, twenty-four; manganese, twenty-four; and to give increased brightness and polish to the glazing I add one pound of umber and one pound of borax. These ingredients, also finely powdered, are then mixed as before described, similarly applied to a biscuit or object to be coated, and burned in the kiln. The result, in this case, however, will be a rich and brilliant brown coating, having all the peculiar qualities of homogeneousness, brilliancy, and durability above described.

My ware will very rarely "craze"—that is, crack—in the glaze, though this may result if the final burning is insufficient. In the ordinary kiln I generally burn them twenty-seven hours.

I have described or mentioned Albany clay as that which I use; but any other good clay possessing the same quality and color will answer. This clay is very generally used by potters.

The umber and borax may be omitted, if desired; but they impart, when used, a very greatly-increased brilliancy and polish.

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

1. A glazing for earthenware composed of the combination of spar, litharge, flint, and clay, substantially as and for the purposes described.

2. A glazing for earthenware composed of the combination of spar, litharge, flint, clay, and manganese, substantially as described.

3. A glazing for earthenware composed of the combination of spar, litharge, flint, clay, manganese, and umber, substantially as described.

4. A glazing for earthenware composed of the combination of spar, litharge, flint, clay, manganese, umber, and borax, substantially as described.

IRA HOLLIS.

Witnesses:

JOSEPH L. TULL,

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