cles required on the potter's wheel, a vertical sort of lathe, or in moulds. The articles so formed are dried in a warm room, and then baked in a kiln; but in order to protect them from the direct action of the fire they are carefully placed in deep boxes made of a kind of clay that will bear a higher degree of heat than the articles they are to contain. These boxes, or "seggars" as they are called, are piled up to the top of the kiln, the bottom of one serving as a lid to the one below. These must be arranged so that the fire shall have access to all alike. The heat is gradually increased to, say 1860° to 1880° Fahrenheit, and the usual time allowed for baking is about 40 to 50 hours; but that is determined by "trials." Now the fire is withdrawn, the ash-pit doors closed, and all is left to cool, when the seggars with their contents are taken out, and the baked ware is "biscuit," called so because it appears like biscuit. It is next to be *glazed*. Litharge, clay, ground flint, white lead, sand, soda, feldspar, common salt, and a variety of articles, enter into the composition of glazes, nearly every potter having his own favourite method, which is his own secret. Potters have always been oppressed with secrets, and sometimes they have not dared to divulge them on pain of death. The glaze is mixed in much the same way as the "slip" was, and to about the consistency of cream. The biscuit articles are dipped into this, and on taking them out enough adheres for the required object. It is now placed again in the seggars, to be fired at a much lower temperature than before, when the glaze fuses and forms an even, glossy, transparent coating. It is in this state and on this vitreous covering that they are to receive the gilding and fine painting. The common blue, and other coloured wares, have their pictorial embellishments transferred to them when they are biscuit, thus: the design is engraved on a copper plate, printed from that on damp tissue paper; the latter, containing the picture, is pressed by rubbing it on to the biscuit, where it remains an hour, and then dipping it into water softens the paper so that it can be peeled off, leaving the picture on the article, the oil in which the colour was ground is dissipated by heat in an oven. Now, when it is dipped into the glaze-tub, that material *will adhere to the painted part of the biscuit* as well as to the other, so that on fusing, the glaze covers and protects the colours.

The finest porcelain made in England has kaolin and granite for its basis, but a much larger proportion of bone-ash. This, composed as it is of carbonate of lime, phosphate of lime, and a little magnesia, makes an excellent flux, the phosphoric acid diffuses itself through all the materials in baking, uniting them into a translucent enamel. This is imported by Hurd & Leigh in white, and embellished by them.

On visiting the art department of Messrs. Hurd and Leigh, we encountered no reserve. On the contrary, even more than we thought of asking was communicated in the most frank and gentlemanly manner. We found the artist seated, work in hand, and his palette before him, treating his subject much as a miniature painter would, with this difference in favour of the latter, that *he* can *see* the effect of his colours as he applies them; the porcelain artist must *know* what his *will be* after they shall have had eight or ten hours firing in the kiln to burn them into the glaze, for they will be entirely changed in appearance. The science of chemistry has furnished the palette of the ceramic artist with all the colours he requires, but being metallic oxides, and having to be submitted to the action of fire for a long time, it is indispensable that he should understand their nature, so as to know the exact proportions in which to combine them for the desired effect. The utmost care is also required in rubbing and preparing them with the proper quantities of volatile oil and flux on the palette.

For the gilding various preparations of gold are employed, but generally in its precipitate, rubbed up with old thickened oil of turpentine, and applied, as the colours are, with a camel's hair pencil. We should state that the artist has by his side a small round rotary table, on which, when it is desired to put a band of gold or colour on the article to be ornamented, the article is placed, and the table turned round whilst the pencil, charged with gold or colour, is held in contact. When the ware thus treated has been freed of the volatile oils by dissipation, they are ready for the kiln, where they are carefully placed on iron shelves, perforated for the equalization of the heat. When the kiln is filled the door is walled up, the fire kindled, a red heat raised, and in from eight to ten hours the colours and gold are properly burnt in. This process requires no seggars. The gilded articles are next taken to the burnisher who rubs the gilding carefully in one direction with a tool of agate or blood stone, with fine sand and whiting as auxiliaries, and the ware is fit for sale.

From the earliest times, and in all countries, the potter's art has been practised. It would be in vain to attempt to trace it to a beginning, as the ancient Egyptians had no knowledge of its origin. It must have been ancient before the commencement of history, for their oldest traditions ascribed the invention of pottery to *Num*, the supreme director of the universe, who moulded the human