

WORKERS AND THEIR WORK.

THE ART OF THE POTTER.

BY JOHN FOSTER FRASER.

Illustrated from photographs by MESSRS. HARRISON & SONS, Newcastle, Staffordshire.



If the truth must be told there are few places less pleasing than that region of England called the Potteries. There you get the climate of Manchester with the architecture of Sheffield. I have never heard anybody say a good word for the Potteries except the

streets made hideous by the roar of very noisy steam tramcars.

Above the housetops are hundreds of bottle-nosed furnaces and over all hang great clouds of smoke, while the open stretches of ground are black and scarred and serve the joint purpose of playground and rubbish depository. The public build-



ARTISTS AT WORK.

writer of a guide book, and writers of guide books are not to be confounded with ordinary members of the human race.

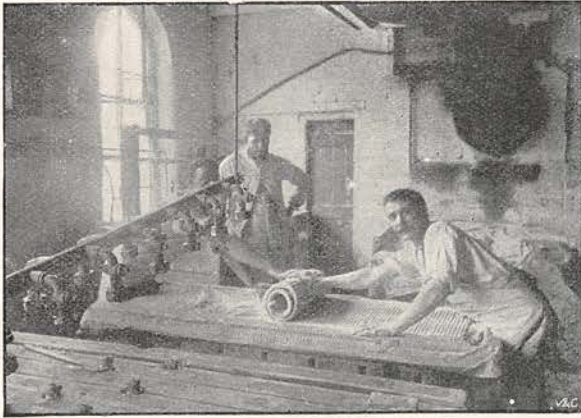
There are beautiful bits of scenery in Staffordshire but they only exist when beyond the reach of the potter. Were the Potteries to consist of one large town it is within possibility some attempt might be made to erect buildings worthy of the name. But the district consists of a number of straggling little towns with narrow filthy

ings only make the other buildings more mean.

I am not libelling the neighbourhood when I say that nobody resides in the Potteries from choice. I have never been in the place without being strongly tempted to suicide, and when I saw the smoke cloud, which hangs over the land like a pall, fade in the distance while the train whirled me elsewhere, I sighed a sigh of happy relief.

But the begrimed Potteries has redeemed

itself in the eyes of the world by being the home of an English art industry and by sending forth chinaware which are things of beauty and would be a joy for ever



AFTER THE CLAY HAS BEEN PRESSED.

were there not an abiding dread that the slippery fingers of a careless housemaid would put an end to any symmetry of design. I have been severe on the physical aspect of the Potteries in order I may have freer scope for marvel at its charming workmanship, artistic taste, and refinement in delineation.

When I stood before the house of Josiah Wedgwood and saw its woebegone aspect, and trod the streets of the village of Etruria, which he founded, and in which he raised pottery into an art, I confessed I had some misgivings about the remaining artistic temperament of the inhabitants. But no; I was able to see things in course of manufacture which were worthy of Wedgwood himself. I searched the Potteries for an intelligent man who took an interest, other than commercial, in the ware for which his country is famous, and I found him in a rate-collector. But his interest in Staffordshire pottery ended with the birth of the century. Everything since then has, in his eyes, been inartistic and vulgar, lacking in grace, workmanship and finish, although he did confess that within the last thirty years there has been a desire to break

through the darkness which enveloped the pottery trade since shortly after Wedgwood's time till well past the fifties.

Nobody knows why pottery manufacture should have settled in Staffordshire. We cloak our ignorance by saying it stretches back to that vague and indistinct period termed prehistoric times. By burrowing into an old and moth-eaten volume I discovered that the Cornairi—a warlike tribe which made pottery on the banks of the Tiber—came to our land in the old days, settled in mid-England, continued to make pots, and the making of pots has gone on ever since. Burslem, the mother town of the Potteries, and where Wedgwood was born, is mentioned in the Domesday Book by an unrecognisable and certainly unpronounceable name, and is justly proud of the fact. The story of how the glazing of pottery was discovered reminds me strongly of Charles Lamb's story of the origin of roast pork. It appears that over a couple of hundred years ago a servant was boiling a piece of salt beef. To sustain the traditions of her race she neglected the boiling and there was a general frothing over of the salt water. When the pot was removed and became cool it was covered with an excellent glaze. From that time forth the glazing of pots with salt became the practice. That is the popular story.

The historical story is that salt glazing was discovered by a man named Daniels at



IN THE MOULDING SHOP.

Shelton. The rate collector proved, to my satisfaction at any rate, that Daniels had nothing to do with it. The real inventor was Werner Edwards, and he had as a



VASE MAKING.

partner—though it was long kept a secret—the Rev. Mr. Middleton, the first incumbent of Hanley. There is pottery in existence made by this firm and bearing a date anterior to the time of Daniels.

Throughout the seven towns which make up the Potteries there are about 170 manufacturers, most of them in a very small way, producing the same things year in and year out. About twenty of the makers have a decided leaning toward art, and these twenty makers—or rather, to be still more accurate, four or five of them—ably maintain the reputation which Staffordshire ware has secured.

It was at the works of Messrs. Doulton that I saw the potter following his trade. I selected Doulton's because it is a famous firm, and because their manufactory is at Burslem, the capital of the Potteries. Mr. Bailey, the manager, explained the various processes through which clay passes from the rough state till it is a beautiful article to adorn a drawing-room.

In a low-roofed, dim-lighted place were deposited great quantities of clay. There was a mass of gray-coloured clay, called china clay, brought from Cornwall, and composed of decayed granite. This clay is used for earthenware. When intended for china and porcelain about 60 per cent. of bone is mixed with it. Then there was ball clay from Devon-

shire, which, when subjected to a great heat, burns very white compared with its previous almost black condition. This clay possesses considerable plasticity—a quality absent in the china clay. But the two, mixed along with flint and stone, are excellent material to make ornaments. It is difficult to gauge the amount of moisture in clay; sometimes there is considerable and sometimes only a little, so the weighing has to be by measure. Various clays are mixed and flint and ground-stone added for certain purposes. To show the different weights of clay I may mention there are 24 ounces of ball clay to the pint; 26 ounces of china clay to the pint, and 32 ounces of flint, and the same weight of stone and felspar, to the pint.

Having decided on the constituent parts the clay is put into a large trough underground. Looking through a trap-door I could see the mixing being done by huge machinery, not unlike an exaggerated egg-beater. It seemed like a well of slush, and all that could be heard was the swish of the beater as it turned round.

The mixing completed, the clay is pumped into another workshop and is forced through immense sieves, and by means of hydraulic pressure the water is forced from it. When the presses are opened the clay is rolled out like a piece of floor matting and is then subjected to what is known as



MOULDING HOLLOW WARE.

pugging to make it thoroughly homogeneous and to get rid of any air-bubbles which may be in the matter. Being now in solid blocks, each about 1 foot square, it is put on one side till the time comes when it can be used. If a piece of the soft clay is broken off it cannot just be stuck on again. In the soft clay you might indeed hide to the eye that two pieces were kneaded together, but when the article that is to be manufactured with it is placed in the fire then the joining will be distinctly shown. Fire always forces back an article to its original shape. Take the case of the making of a cup. Supposing that by inadvertence the man touches the side with his finger and makes a slight dent; afterwards he notices the dent and presses the cup till it is like all the others and you cannot distinguish any difference. In the furnace, however, that cup will return to a bent shape and show the dent.

Here is an example that every reader may witness for himself. Most jugs and ewers are made in moulds, except the shaping of the mouth, which is generally done by hand. Where the mould joins there is a very slight excrescence of clay. This is removed by a knife and rubbing down with the finger until it is impossible to detect there is any join. But in the furnace the join will force itself; and in every article made from a mould you can distinctly see the line running down the front and back parts of the vessel.

The making of pottery by hand is full of interest. Let me describe "throwing." Before a workman there is whirling a small disk; he takes a handful of clay and dexterously throws it on the disk. It seems a very easy thing to do, but as a matter of fact it is most difficult, requiring years of practice to toss the clay in the proper place. Sticking his two thumbs into the clay he models the inside of an ornament, shaping the outside with his fingers. First he moulds the clay out to form the globe and then gradually withdraws his thumbs and then works his material with his fingers as he raises it and forms, maybe, a long delicate neck. It is all done rapidly. One moment you see the man throw the clay on the disk, the next he has it in the shape of a small basin, and then the next he has almost closed the top till it is bell-like. He places his thumb on the summit to form a mouth.

The revolving ceases and he presses a finger upon the pliable clay to form a spout. A boy hurriedly removes the newly-made and delicately-shaped ornamental jug, another piece of clay is pitched on the disk, and the whole thing is done over again.

Running at the back of the long room, where the clay receives its first impression into shape, are a number of hot-air compartments. In the centre is fixed a huge appliance, like a turnstile, on which are hundreds of shelves. One side of this framework comes close to the door, and wares are placed on the shelves and then twisted round into the hot air to be dried. This drying brings out little roughnesses on the surface and then the goods have to be



SAUCER MAKING.

turned on lathes and rubbed until perfectly smooth. As there is water in the clay the drying naturally evaporates it and there is some contraction, and allowances have to be made for this. China contracts as much as one-fifth and earthenware one-twelfth. The turning, after drying, removes any uneven thickness left by the thrower. As the ware is now fairly stiff the mouldings and bands are worked upon it with various tools. Almost in the twinkling of an eye an expert workman will, with a rapid turn of his wrist, produce a pattern which is both symmetrical and neat. Not far away, women press out on a table the moulds for handles, and, having nicely curved them between the finger and thumb, fasten them to the cups or jugs, or whatever there might be.

For a long time I stood watching cups and saucers being made. Boys, working as I had never before seen boys work—the manager was standing by my side during the time—were doing the moulding rapidly and well, whilst women, with gentler fingers, were twisting the handles and attaching them as rapidly as the cups were passed on. There is a special machine for scooping out the shape of saucers. It is like a knife which digs into the revolving clay and works forward, thus widening the circle till the proper size is reached. This is called "jollying," but the work is not nearly so well finished as when the clay has been manipulated by a thrower.

From department to department I wandered witnessing the shaping of clay into many articles. One was forced to wonder what became of all this crockery, and I remembered the theory of an astute American who foretold the coming of a broken crockery period, just as there has been a stone period, a bronze period, an iron period and so on, and he

pictured the time when the Irish Sea would be filled with broken pots, and a time would come when there would be a highway from Britain to America formed of broken china pitched over from the sides of Atlantic liners. Making his calculations on the average amount each traveller was charged for broken dishes he was able to tell when that period would arrive. Putting this quaint humorist and his theory aside, there remains the most interesting problem—what does become of all the broken crockery?

When the articles in course of manufacture have attained a certain amount of solidity by being subjected to hot air they are taken into a hot room, singularly called the greenhouse because it is there that green ware is deposited ready for firing.

All round the place I saw a thousand and one articles piled in great stacks waiting their turn to pass through the furnace.

I have mentioned that all over the Potteries one sees great bottle-nosed furnaces raising their shoulders above the house-tops. It is in these places that all the crockery is piled. The crockery itself is not brought in direct contact with the flames. There are many hundreds of big earthenware jars, just like huge cheese boxes, called saggars, and in these the cups, saucers, plates and what not are packed, any quantity of sand being thrown around them to form a bed and to

hold them in position. At the side of the furnace is a slit as a door, and the saggars are carried inside and piled one on the other till they are a couple of dozen deep. Twenty-one men I saw engaged in carrying and arranging them. First, the men cover the floor, then they build up the sides until a ladder has to be used, for the saggars are put into the ovens until they touch the very roof. These furnaces or ovens, though



SAGGAR MAKING.

their size is not great as seen from the roadway, are really of considerable dimensions. As I stood in one and became accustomed to the gloom, so as to distinguish the red-baked sides, I was surprised at the dimensions. When the place is packed with the saggars and the doorway closed the fire beneath is lighted. The draught is vigorous, and soon the flames are roaring through the oven seeking escape at the mouth above. Warmer and warmer the furnace becomes and then hotter and hotter until, when you peep through a small aperture for the purpose, you no longer see a heap of saggars but only a fiery mass, for the flames have made them white hot, the heat penetrating with all its intensity through the sand to the various wares. For sixty hours is the firing con-

tinued, and to stand outside the oven is to run a risk of being blistered. At the end of two days and a half the fires are stopped and the cooling begins. In about thirty hours more it is possible to open the doorway and begin removing the saggars.

When an article has been subjected to this process it bears a dull white and brittle appearance, and in potter's phraseology is called biscuit. It is stored in the biscuit warehouse and examined by girls who see that there are no flaws and reject any misshapen pieces.

Next the goods pass on to the printing shop. If the ware be plain and requiring no ornamentation it is sent forward to be glazed. But folks, nowadays, require plenty for their money and they like a pattern running round the edge of their breakfast plates, a cluster of roses climbing over the soup tureens, and a garland of may-blossom to adorn the entrée dishes. The best embellishment is done by hand, but in the case of ordinary ware it is printed. This is work in which girls are chiefly engaged, and although the process requires some deftness of finger it is comparatively simple and is done with astonishing rapidity. Let us assume that a pattern is to be affixed to a dish. The design is first of all engraved on a copper plate. This having been covered with ink of the particular colour the pattern is to be, an impression is taken on thin tissue paper. A girl gets about a dozen of these tissue papers in front of her and, while the colour is still wet, she places them on the dishes, which she rubs with a hard flannel "rubber" to make every part



FIRING A FURNACE.

adhere. If it is a pattern which runs round the edge of a bowl she fastens the narrow slip of paper at any point, gives the bowl a twirl so that the paper twirls round and overlaps the other end, where it is torn off. It is the easiest thing in the world to see where the join has taken place. In the case of unevenly-shaped vessels like ewers or jugs, which are covered altogether with flowers, it might be thought great difficulty would be experienced in fixing the pattern in place. You look at such a pattern and it seems regular and proper; yet as a matter of fact it is put on rather haphazard, not because of any carelessness but because there is no use doing it any other way. A girl seizes a huge sheet of tissue paper with a wet printed design on it. She sticks it on the bowl of the ewer and plasters it down with the palms of her hands. But in the curve of the neck there is too much pattern, so what she does is to let it overlap almost anyhow so long as the surface of the article is entirely covered. It might be thought this would spoil the design. It does in a way, but the ordinary eye cannot detect it. It is difficult to tell that the mixing of rose-leaves is not arranged. If you have a very good eye and make a careful examination you may discern where the overlapping has been. As soon as the pattern is considered fixed the paper is washed away. The colour on the dish is not disturbed by this being done because oil is mixed with it.

After the oil has been burned out of the coloured design comes the glazing. The glaze is generally a composition of borax, flint-stone and white lead. It is mixed with water,



MOULDING CUPS.

each article being separately dipped into it; then it is placed on a revolving shelf and is carried among a number of steam pipes

kind of ware there is little advantage working from a drawn design. The artist has the general idea to work upon and the



IN THE PRINTING SHOP.

where it is dried. Once more is the ware packed in a saggar, and the top of the saggar is fastened with a wad of clay, and once more the saggars are heaped in the furnaces. Twenty-four hours' white heat fixes the glaze on the surface of the article and then thirty hours are necessary for cooling.

Interesting as all these processes are, they are nothing compared with the exquisite manipulation of the clay by hand when an ornamental vase, with protruding flowers and figures, has to be made. Girls are engaged in this work, and as a young woman confines herself to some distinct class of decoration, quickness and dexterity are soon acquired. I have mentioned the salt glaze. This old-fashioned glaze, which has still many charms, is used by Messrs. Doulton. The clay is worked while in a plastic state and a half hour is not ill spent standing by the side of an artist while he is carving and twisting the composition into beautiful designs. What is known as incising is an important method by means of which the clay is cut with a sharp tool so that a fine burr is thrown up on either side to retain the colour afterwards applied. In this

details are left to him, so that if you pick up a piece of this ware you will invariably find the modeller's initials upon it. When a man has completed a piece an assistant often sets to work to make a pair by copying it.

Ingenuity, in making fresh designs, seems endless. Not only is the soft surface carved but other modelled pieces are placed upon it, while frequently delicate filigree patterns are worked on the background or possibly moulded flowers are impressed. One novel plan of imparting a delicate texture is to impress the patterns from lace fabrics.



DIPPING CROCKERY IN THE GLAZE.

These plastic decorations have to be put aside to dry and the drying must be thorough or disaster will follow in the kiln. The coloured salt-glaze ware, or Doulton ware as it is generally known, boasted originally of only blues and browns, but now many other colours are used capable of standing the intense heat to which they are to be subjected.

There are other wares which deserve a word. There is, for instance, silicon ware, which is not fired in the salt-glaze kilns. The articles are very hard and are fired at the same heat as the salt glaze, but without a glaze, or if there is a glaze it is very slight. This salt glazing produces a charming effect because it fuses with the clay itself. During the last stage of firing, when the ware is just



TRANSFERRING PRINTED DESIGNS.



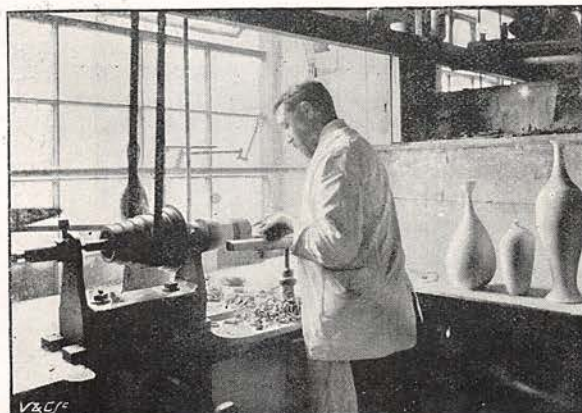
PRINTING POTTERY DESIGNS.

on the point of vitrification, common salt is thrown into the kiln. The decomposition of the salt fills the kiln with dense fumes of salt vapour, producing on the wares a thin glass or glaze of silicate of soda, exceedingly hard and thin, exactly even over all parts of the surface, and hiding not the least touch left by the edging or modelling tool.

The painting of pictures and designs on the superior class of ware is entrusted to artists of considerable skill. The simpler kind of hand painting is done by girls. Pretty floral devices which are repeated on hundreds of dishes do not of course call forth much ability. But care and daintiness of touch are required, and the girls, as far as I could gather, rejoiced in their work, for it is both light and interesting. They

were seated at long tables in a large, well-lighted room, neatly dressed and with big white aprons to keep their frocks from being soiled. A mass of articles, apparently piled higgledy-piggledy before them, were passing quickly through their hands to be adorned.

Girls possess a certain facility for painting, but they rarely devote to it so many years of study and patience as the men. It is a pleasant occupation, and a girl finds it a good way of earning her living between the time she leaves school and gets married. But in the case of a man, when he takes to the painting of pottery it is with the intention of devoting his whole life to it. Thus it is that all the best painting is done by men. Some of the artists have been with the firm for a great number of years. In one room some twenty or thirty men were at work. As the painting cannot be slipshod, considerable time is devoted to the ornamentation of a vase or bowl or table ornament. There seemed to be an atmos-



A TURNER AT WORK.

phere of impressionism in the place, so delicate and suggestive is the painting. In one case an artist was beautifying an ornament with a shadowy castle, a perfect monotint, the scheme of which he got from a photograph. Another man had made a speciality of orchids for decorating dessert plates, while a third was constantly exercising his fancy in finding different ways to paint silver-breasted fish.

The best work of all was being done in places where each artist had a room to himself. Messrs. Doulton have produced the finest big pieces of ware that have ever gone out of a pottery. The most famous was of course the Columbus vase, nearly 6 feet in height, which was sent to Chicago a year or two back. Then there is the beautiful Diana vase, nearly 5 feet high, in the style of the Renaissance. Another work



BURNISHING.

Purgatory while across Lethe's stream he discerns the lost Beatrice, beautiful in a veil of



ENAMELLING THE POTTERY.

of art is the Dante vase. The paintings are excellent. One represents Dante reaching



AN ARTIST AT WORK.

white and film-like glaze. These are only a few of the great pieces of ware, admired throughout the world, which have been sent out from the dismal, smoke-cloaked Potteries.

This district of Staffordshire is rarely visited by the ordinary sightseer because its aspect is so forbidding, but I hope I have shown that it is an interesting district, not only as the great centre of manufacture for cups and saucers, plates, soup-dishes and washhand basins, but because also it is a great art centre. While the streets are narrow and rugged, the houses mean, and the people often go shuffling along with a dissatisfied and worn look, the Potteries has for centuries been one of the most important sections in the great British hive of industry. With that the inhabitants may well rest content.