

DECORATING-ROOM.

POTTERY IN THE UNITED STATES.

IN earlier colonial times, when the abundant material resources of this country were neither explored nor as yet imagined, our ancestors were content to dine from pewter plates and porringers, their few precious pieces of china being reserved for company use, or display on the shelves of the equally precious nut-wood parlor cupboards.

This china, either brought over by the colonists from the mother countries, or smuggled into port by illicit traders with the East, was the quaint blue and white porcelain introduced into Europe by the Portuguese, and the Dutch and English East India Companies, who successively traded with Japan.

About the middle of the seventeenth century came the excellent imitations of this ware manufactured at Delft, in Hol-

land; then might be seen tiny tea-cups, odd jugs, and majestic tea-pots gay with blue shepherdesses, boats, and pagodas sailing in the air, still highly prized and kept for show.

Later, after the cession of New Amsterdam to the English, Lambeth and Fulham copies of this delf were followed in time by the Liverpool and Staffordshire printed earthenwares, none of which, however, were yet in general use, pewter being preferred for ordinary occasions until the Revolution.

About the year 1659 we begin to hear of potteries for the production of tiles, bricks, and the coarser sorts of stone-ware. In 1740 New York boasts of several establishments for making earthen dishes, and in 1770 so great has been the progress in processes that we find porcelain has been.

attempted, for the Southwark China Factory at Philadelphia "promises encouragement to skillful painters and enamellers in blue," and offers a premium for the production of zaffre, a compound of cobalt.

As early as 1765 the number of potteries springing up in the colonies alarmed the English manufacturers. The wares were rude and devoid of beauty, but they were beginning to supply the home demand, and their increase pointed silently though eloquently to a future of ceramic independence of the mother country.

It was during this year that Josiah Wedgwood expressed fears for England's earthenware trade with America, so small an event as the erection of a "new pot-works in South Carolina" causing him to look with prophetic eye to the time when the young country would prove their dangerous rival, for, said he, "they have every material there equal, if not superior, to our own for the manufacture."

And Wedgwood spoke with knowledge, for he had already tested the clays of the Carolinas, Georgia, and Florida, and made arrangements for a regular supply of the "unaker" or Pensacola clays.

How well-founded were the fears of the "great potter" may be judged by the present progress of the industry in the United States, and the accounts from the potting districts of England within the past few years.

At a meeting of a board of arbitration held at Hanley in the beginning of 1877, in reference to a proposed reduction of labor prices for the avowed purpose of "keeping the growth and increase of make in the States in check," the head of one of the leading manufacturing firms said in effect that he had visited the United States in 1875, gone through their largest potteries, and had seen goods of a reliable character better than could be imported at the same price, and his impression was that unless the tariff was reduced, and English wares made at less cost, England would lose her American trade altogether.

A second prominent potter declared that the States not only have all the requisite materials, but they are superior to those used in Staffordshire; that as for the quality of their wares, he wished he could make as good; and that to keep ground with American goods, English labor prices must be reduced.

Other speakers, referring to the superi-

ority of American wares, confessed they experienced great difficulty in retaining their trade in that quarter, prophesying that "at the present rate of progress in the United States, in ten years English crockery would find no market there at all."

The history of this progress is one of perpetual struggle, for extraordinary difficulties met the pioneer at every turn.

In a country rich in all the requisite but as yet undeveloped materials, except for the manufacture of the coarsest wares, he was obliged to import every pound of flint, spar, and finer clay he used, in slow sailing vessels taking months for the voyage; he had also to train or import labor, to pay high wages, and learn by costly experiment in a new climate the proper treatment of his clays.

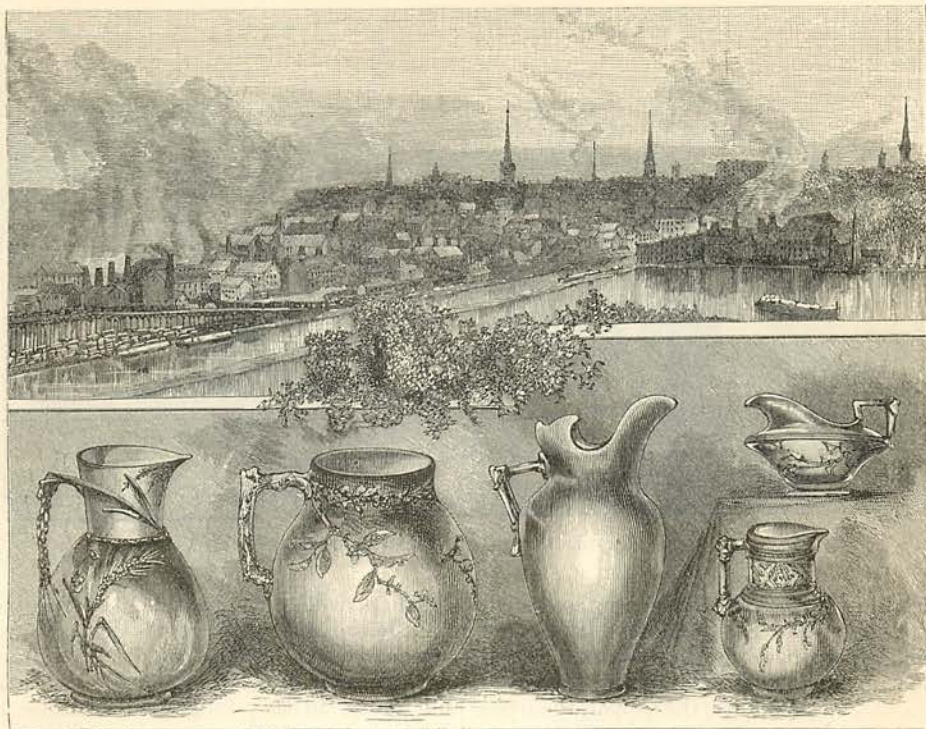
The industrial and mechanical difficulties were perhaps the least against which the potter had to contend. Chief of all, and not overcome until within a recent period, was the strong popular preference for the established English wares, necessitating a continual improvement in the quality and selection of domestic goods, and this, too, at a time when the British manufacturers, in their efforts to control the American market, resorted to repeated lowering of their selling prices, compelling corresponding reductions in home wares made at far higher cost.

This rivalry with the British producers was not without its good effects, for there is no question but that it stimulated the invention of the potters, and aroused the spirit which has caused the remarkable development of the industry in the short period over which its interests virtually extend, for although coarse wares were manufactured one hundred and forty years ago, the production of white goods can not be said to have commenced until within the last thirty years.

It must be conceded, however, that the forty per cent. tariff of 1861 gave the American potters the strongest incentive to compete with foreign manufacture, and the opportunity to resist British efforts to control the trade.

There are now eight hundred potteries in the United States, the total products of which supply fifty per cent. of the wares annually consumed, the chief centres of the industry being Trenton, the capital of New Jersey, and East Liverpool, in Ohio.

The former city offered peculiar attrac-



TRENTON AND ITS POTTERIES.

tions to the potter, both from its railways and canals connecting it with the great cities of the Union, and its nearness to mines of the raw material. West and southwest lie the coal, kaolin, spar, and quartz mines of Pennsylvania, Delaware, and Maryland, and eastward the fire and white clays of New Jersey.

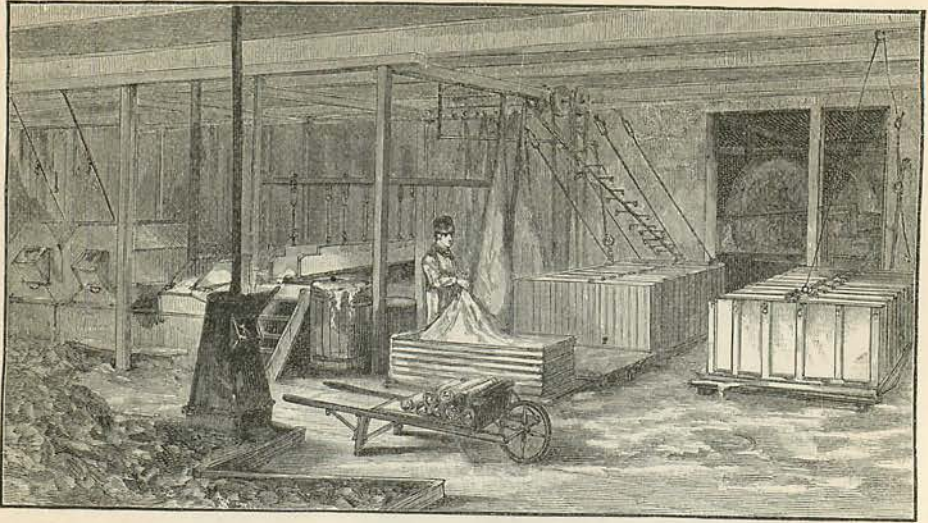
The clays of Ohio, Missouri, and Indiana, and abundance of fuel, have built up East Liverpool, making it the ceramic centre of the West. For thirty years it has been engaged in the manufacture of the ordinary Rockingham and yellow wares, furnishing the greater portion of the two million dollars' worth annually produced in this country. It was not until 1873 that white ware of any description engaged the attention of the Liverpool potters: to-day white granites, semi-chinas, and "cream-color" are manufactured in fourteen thriving establishments, and one or two firms are experimenting in china.

A two hours' ride from New York by rail takes one to Trenton, in point of production the principal seat of ceramic manufacture in the United States. As

the train whirls rapidly along, and enters the suburbs of the town, one catches a glimpse of groups of substantial new buildings, whose ruddy flame-crowned cones proclaim that the great industry is striking its roots outward from the centre with its crowded factories and its network of railways and canals.

Reaching the southern or eastern portion of the city, one is surrounded by telling signs of the peculiar activity which has appropriately given this region its title of the "Staffordshire of America." On every side may be seen smoking chimneys and kilns looming above tall modern factories, or long, low, weather-stained buildings, lumbering carts filled with raw material, and drays piled high with casks and crates of finished ware.

The freight trains come, with their tonnage of spars, quartz, clays, and coals from north, south, east, and west; and lazily from the southward along the winding waterways float the slow, mule-drawn canal-boats that lend a dreamy old-time aspect to the scene, which is not lessened by the knowledge that rising around us



THE CRUSHER. SLIP-ROOM. DRAWING THE PRESS.

are the symbols of an industry so ancient as to be prehistoric, though so little modified by centuries of development that it has not discarded, but merely improved, the block, the mould, the shaper, the oven, and the potter's wheel of the earliest times.

We are suddenly brought back to the stirring present by the lively sounds of bells and steam-whistles announcing that the noon hour is ended, and by the appearance of a troop of very modern lads and lasses hurrying to the "works." Let us enter with them.

Work has already begun, for as the gate swings open to admit us, the soft hum of machinery is heard, and in the yard men are busy loading and wheeling away barrows of heavy stones, which prove to be massive quartz and feldspar.

These bluish-white translucent rocks are the quartz, mined on the shores of the Susquehanna, in Maryland; this feldspar, flesh-tinted, and occasionally stained with red, was mined in Maine. Both are important ingredients of our finest wares. Kaolin, if used alone, would produce a body characterized by porosity and want of strength, to remedy which quartz and feldspar are added; these minerals, under certain conditions of combination and heat, fuse, and bind the whole into a dense, sonorous, and partially vitrified body; but both must first be subjected to calcination to render them friable, or easily crushed.

Step into the mill-room of the pottery, and take a look at the great iron cylinder

crushers, which, as they steadily revolve on their heavy axes, grind the calcined spar or quartz to a dry powder by contact with French flints or pebbles. You will not desire to stay long, for the noise is deafening, and then one sees literally nothing of the process. This is not the case in another department, where the grinding is done in water. Here one can trace the progress of the calcined mineral from the stony lump to the purified white powder.

First it is thrown into a circular stone trough, and crushed into coarse powder by two millstones that chase each other around and around like massive wheels; then it is shovelled into the tubs of the burr-mills, and mingling with the water to a milky white fluid, is swept with ceaseless whirl till fine enough to flow down into the wooden troughs below. There it lies for a few minutes, depositing its sand and coarser particles; then the finer white fluid flows into wooden receptacles still lower down, where in thirty hours it will become so hard that it must be dug out in blocks for drying in the kilns.

Up to certain stages in these and other operations everything seems to depend on continuous motion; so tenacious are the materials in course of preparation that a few minutes' stoppage would entail great loss of time and labor.

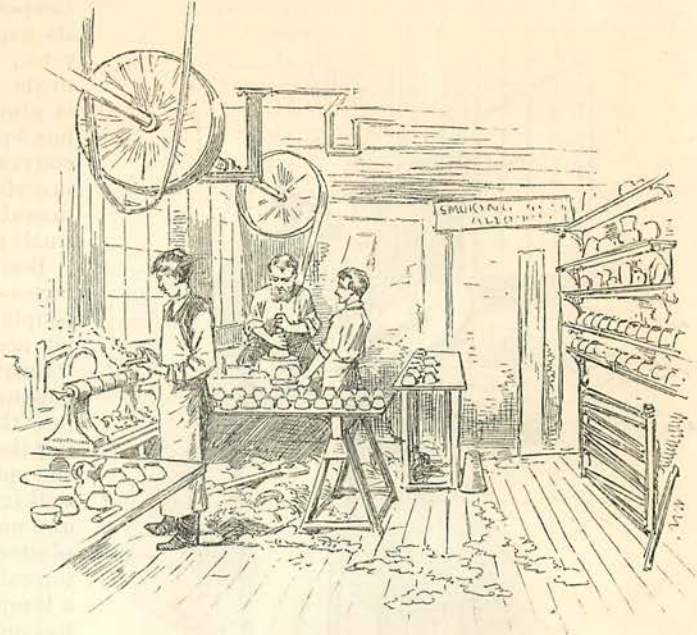
Kaolin undergoes its first preparation at the mines. Unfortunately much of the American clay is obtained in so prim-

itive a manner that the brands are not always reliable, thus frequently entailing great disaster to the potter, and causing him in desperation to turn to the English clays, which may always be depended upon, and can be laid down in New York more cheaply than our own.

Analyses have proved American kaolins to be both richer and finer than foreign clays. Explorations disclose inexhaustible beds in every section of the land. Granted enterprise, knowledge, and honest dealing on the part of the mine proprietors, and the day is not distant when, instead of importing, the Americans will be exporting kaolins.

But to return to the pottery. The spar and quartz have passed the ordeals of fire and water and grinding; the kaolin has been crushed and washed at the mines; but none of these are yet pure enough to undergo the simple processes which shall transmute them into the strong yet fragile, delicate yet imperishable, stone chinias or porcelains of the day.

In the "slip-room" are three great wooden cisterns half filled with a creamy liquid, which is being constantly driven around, as cream is whirled in a rotary churn, by upright armed shafts. This creamy liquid is the "slip," which will form the body of



THROWING AND TURNING.

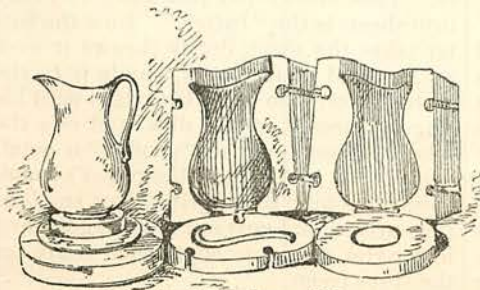
the ware: it is merely the kaolin, quartz, and feldspar suspended in water. When sufficiently incorporated and even, it will be allowed to flow down into the large cisterns in the story below.

Here it is still whirling, whirling, but filtering off slowly into the fine silk sieves of the purifier. These, as they spring back and forth with regular motion, retain the sand, spangles of mica, or other impurities, allowing only the delicate argillaceous liquid to filter through.

Thence it passes to vats in the cellar below, where it is still agitated to prevent its settling in a thick tenacious mass. We next see it taken from the bags of the hydraulic presses, whither it has been conveyed by pipes through the cellar. Deprived of its water, it is now a pale nankeen-colored dough. Passing the store-room, one may see it piled in great masses ready for use.

Now we shall see something of life and motion in the large room where the "wedgers" and "throwers" are standing before their blocks and lathes, each with his assistant, generally a boy or girl.

A barrow-load of this nankeen-colored clay has just been brought in. The "wedger" takes a lump of, say, twenty pounds' weight, lays it on the kneading



MOULDS.



THE BATTER.

block before him, cuts it in two perpendicularly by means of a strong-handled wire; then dexterously swinging one half high in the air, brings it down with a thud on the other.

Again he cuts it, now horizontally, throws the under half up at arm's-length, and brings it down vigorously on the upper, repeating the operation until all the air is expelled, and the clay is ready for "throwing," or moulding.

The young potter throws a lump of clay on the disk before him, and sets it in motion. Whir, whir, goes the hidden mystic wheel. Fast and faster flies the disk, and the flying clay, controlled by his guiding hand, rises and swells, flares, and falls into lines of beauty. It seems as if the magic of all the centuries gathers in his touch, for while we gaze come tapering base, slender neck, and drooping rim, and, lo! the vase is finished.

The application of steam as a motor to

the potter's wheel, increasing its capacity twenty-five per cent., was first successfully made in America. Its use is almost universal, though hand-power, as a matter of convenience, is still utilized in certain branches of ceramic manufacture in both large and small potteries.

Bottles, jars, cups, bowls, boxes—indeed, all articles of simple circular form—may be accurately and rapidly "thrown"; but watch this cup-maker, and you will see how the use of a mould, taking the place of the disk on the spindle of the "wheel," will insure greater certainty and uniformity of size. The plaster mould fits into a metal top called the "jigger-head"; a lump of clay is thrown into its cup-shaped hollow; as the mould revolves a few simple touches of the hand shape it to the sides and bottom, and in an instant it is ready to go to the store-room, where it will soon "set" sufficiently for burnishing.

Fifty or sixty dozen may be made in a single day by a man and his assistant; add to this a simple mechanical

contrivance called the "pull-down"—a piece of steel which takes the place of the potter's hand—and one hundred dozen will be the result.

Up and down the long rooms wherever we go are hanging shelves filled with the "green" and drying wares, and on either side are rows of busy workmen. What are these doing? Making plates and dishes. That sturdy lad pounding the clay into sheets is the "batter." Now the batter takes the sheet, deftly throws it over an inverted plate mould, hands it to the plate-maker, who trims the edges with his finger, places it on the disk, and sets the wheel in motion; the "profile," a small pearl china tool held in the potter's hand, barely touching the whirling clay, smooths the surface, and cuts out a clean edge and lower rim, the plate being then ready for the stove-room.

Burnishing is accomplished in a similar manner by placing the plate, still on the



MOULDING-ROOM.

mould, when it has "set" in the "stove-room," upon the disk, and holding a bit of smooth china in contact with its surface while it revolves. It is then set away to dry for "burning."

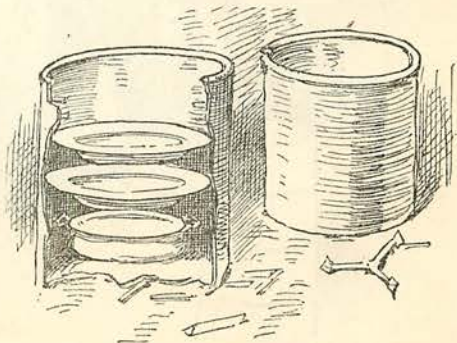
In the mould-room we find again the long array of hanging shelves, on which at least half of the ware has changed to a dull white, and seems ready for the kiln, but we miss the whir and excitement that reign below. The batters, however, are full of life, and continue pounding, and supplying the moulders with sheets of clay. These sheets are pressed gently into the hollow moulds, which are usually in two parts, and are made of plaster, a material that rapidly absorbs their moisture. As soon as the clay fits into all the cavities the two halves are brought together, the exuding clay trimmed off, and the piece laid aside to set, or shrink; the mould is then easily removed, the seams of the jug or dish smoothed with a damp cloth, and the handles attached, when it is ready to join its neighbors on the drying-shelves.

The color of the "green" or freshly made ware is a delicate faded olive or pea green, which gradually becomes a dull dead white, at which time it is quite ready for the biscuit kiln, where it undergoes its first burning, and becomes a brilliant white dense body.

Passing to and fro are a number of

jaunty young fellows carrying trays and boards full of ware to the kiln-rooms, where groups of men are arranging them in curious clay boxes, called "seggars." They are charging the kiln, that is to say, packing it with ware for burning. The cup seggars are shallow, holding but one row of cups, which must stand each on its bottom, or foot, for burning; the plate seggars are deep enough to hold a dozen or more, every plate being supported from underneath its rim by three clay pins projecting from the sides of the seggar.

Look inside the great kiln that towers fifty feet into the air; it is almost "charged." One above another, reaching nearly to the inner roof, the seggars are piled in slender columns, with small spaces between each column for the passage of flame and smoke.



SECTION OF SEGGARS.

The crevices of the clay boxes are carefully sealed with bands of fire-clay, for the merest touch of sulphurous gas or smoke would tarnish the bright white ware.

The last column is now piled within the kiln, the great iron door closed and luted round with clay, and every crevice stopped. It is already evening, with shadows deepening into night; the fires are started in the surrounding furnaces; they crackle and roar, the smoke of their burning issuing in volumes from the top.

One by one the lights that have been flitting to and fro are extinguished, the workmen are all leaving save two, who from time to time during the night will feed the fiery furnace mouths that already begin to cast their glare across the darkness.

We have followed the crude material to its first burning, one of the most important stages of the manufacture, for on

its success largely depends the after-character of the ware. The biscuit must be fired just so as to obtain its full contraction, else the glaze, however perfect in proportion, will inevitably crack, or "craze."

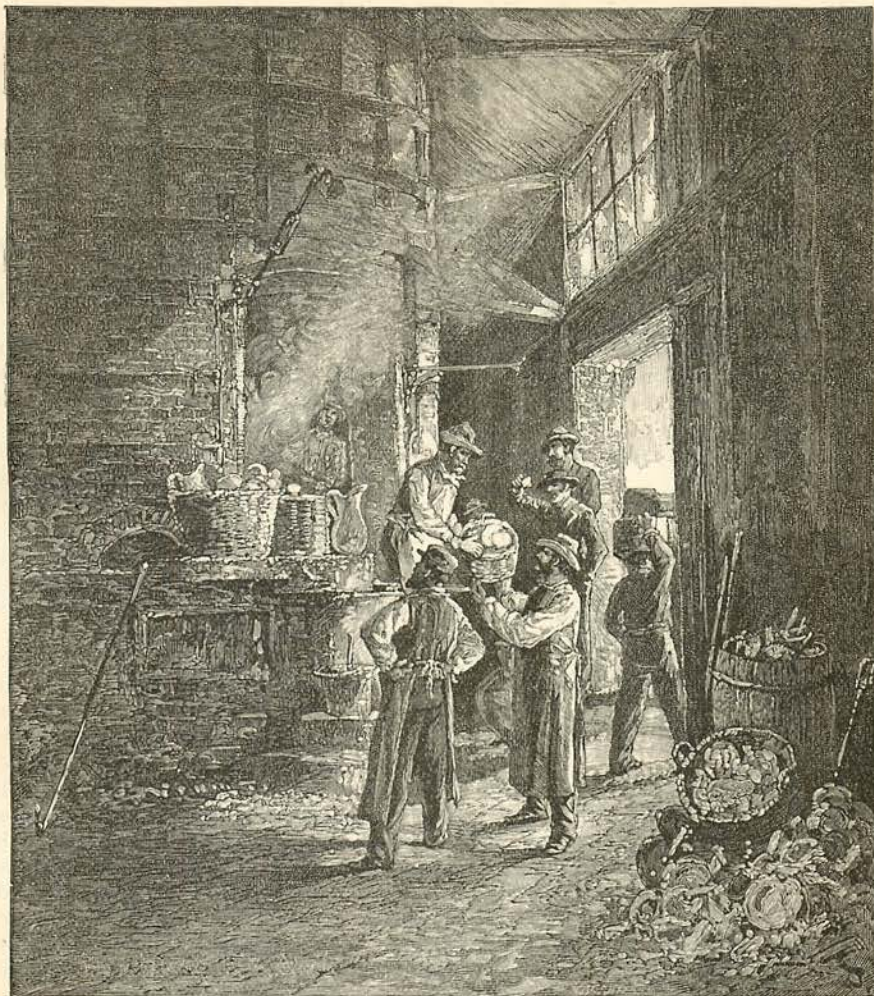
The preparation of the glaze is quite as important, for it is composed of materials subject to great contraction, namely, quartz-feldspar, Paris white, borax, and a little lead.

These, with the exception of the latter article, are "fritted" or melted in an oven till they run like molasses; they then harden, and are crushed and ground in water. Having lost much of their contractility, they are now ready to coat the ware, and will fuse and harden on the biscuit without "crazing."

Once more it is morning, and we visit another pottery, arriving in time to witness one of the most stirring events of the day, "the drawing of the kiln."



CHARGING A KILN.



DRAWING A KILN.

Fifty hours the great dragon mouths of the furnaces at its base have been belching flames and heated gases into its sealed interior; forty hours ago they ceased, the fires dying out in ashes. The massive door is open; mounted on ladders within are several young men handing down seggars to their companions below, who pass them outside to the men on the platform near the kiln steps. The ware is turned out, exquisitely white and brilliantly polished.

Piles and piles of dishes and strings of cups are delivered to a little company of lads, who bustle off with them to the group of girls standing in the doorway of the room yonder, from which there soon proceeds a musical click click, click click,

for the ware rings like the bells on the tower of Nankin.

The ware is now ready for enamelling or painting overglaze.

In the decorating departments we find a number of men and women beautifying the biscuit or the glazed ware, some painting or printing, others enamelling and laying on bands of color.

Here is a lad "lining" a pitcher with gold; it stands firmly on a wooden disk which he revolves with his left hand, while his right holds a brush charged with color just near enough to touch the whirling form and leave upon it a line of reddish-brown, which fire and burnishing will transmute into gold.

Yonder are the "burnishers" rubbing the fired lines with blood-stones—easy and pleasant work, if we may judge by the merry way in which the girls laugh and chatter.

Here groundworks and bands of color are being laid on—a simple operation of dusting dry color on a prepared surface lined off on the vessel. In the enamel kiln this will fuse into a lovely, smooth, tinted surface. The young girls on the other side of the room are decorating a toilet set; a pattern lies before them, from which they are copying the colors to fill in the outlines printed on the pieces: this is called "filled-in-print" decoration.

Further on a young man is skillfully etching out of the solid color on the body

of a pitcher a pretty design of an artist's palette with pencils, and sprays of delicate grasses. And here are some flowers very gracefully and freely painted by hand. One can say little, however, of the coloring, for the tints shown at the present stage are in no way indicative of what they will be after they pass the ordeal of the enamel kiln.

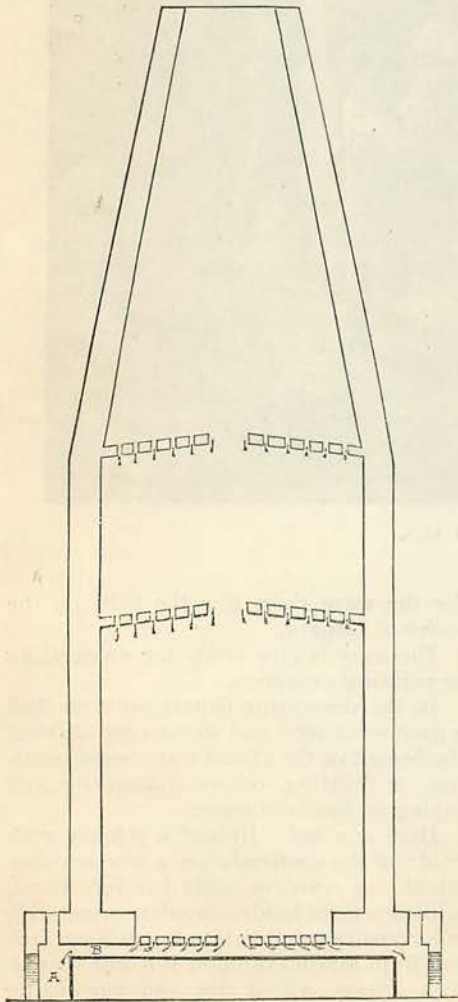
Here come two or three trays loaded with completely finished wares; let us see how they have come through the last burning.

This dinner service, called the "Yeddo," with its quaint forms and "all-over" daisy pattern painted in deep underglaze blue heightened by gold, is at once clear, dark, and brilliant, and wonderfully well defined, considering the intense heat which the color requires—a heat in which not less than half the pieces are destroyed.

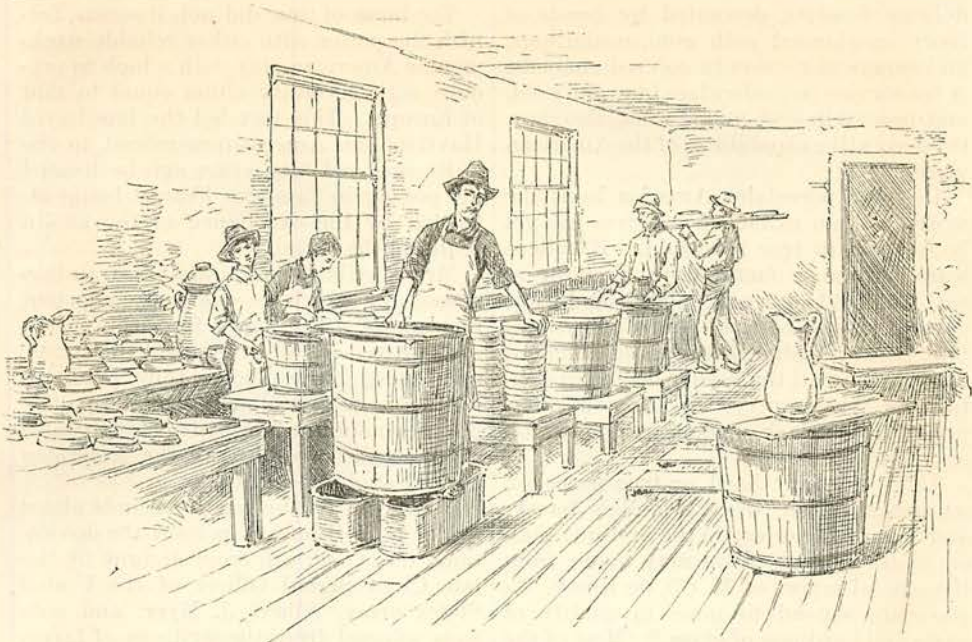
A dozen plates for the Governor's wife show a broad band of mazarine blue around the rim, with a decoration in relief of white enamel over a chevron pattern of gold. But lovelier still are these hand-cut basket-edged plates with rims and pierced edges in gold: the inner surface of this one shows a deep mazarine blue relieved by a group of yellow marigolds; this other, a pale canary ground with sprays of forget-me-nots in delicate blue.

These quaint canettes are pretty, with their gilded edges, colored bodies, and foot-lines in black. More original and decidedly American in suggestion and design is a toilet called the "Bullion," in a fine, satiny-glazed semi-china; the wide-mouthed ewer with neck and handle powdered in gold seems to issue from a bag shirred and tied up with a carelessly knotted string; the leather-color of the bag and the scattered gold favor the conceit of a pitcher issuing from a sack of the precious metal.

As an illustration of the higher channels toward which the industry in Trenton is tending, the artistic department of one of the large potteries is specially interesting. Here one is at once attracted by a magnificent bust of Cleopatra in Parian, heroic size, the paste in which it is cast being hard, compact, and fine as the purest marble. A pair of vases standing near by illustrate the national sport of base-ball. On the circular pedestal at the foot of each vase stand three lithe, graceful figures, full of action, and embodying the American ideal of manly beauty. The various



SECTION OF KILN.



GLAZE-ROOM.

attributes of the game, skillfully disposed, form the body of the vase and the decoration. A pastoral vase, with a relief design of goats and nymph dancing to a piping satyr, is harmonious in form and detail; so also are two pairs of vases in ivory porcelain, one light blue, Etruscan in form, and decorated with wreaths of flowers; the other, black vases, twenty-two inches in height, relieved by gold, and ornamented by storks cut and shaded out of the black body.

The "ivory porcelain" of this pottery is substantially the same body produced in a dozen other Trenton factories, and called variously semi-china, stone porcelain, and American china, all possessing the dense, fine-grained, semi-vitreous biscuit, and exquisite glazes that make them equal in appearance and superior in durability to French and English china.

Another highly important branch of ceramic industry is also carried on in Trenton, the manufacture of sanitary or plumbers' ware, hundreds of thousands of dollars' worth being annually shipped to New York, Boston, San Francisco, and other ports.

Formerly all this ware was made in England, patterns being sent out there; a year elapsed before the orders were finished, firms frequently being obliged to

send over plumbers to explain them. American plumbers' ware has now completely superseded the English in our market, not only because it is made more quickly, but because it is superior in body, glaze, and design.

By far the greater proportion of the \$4,000,000 worth of wares produced annually in the United States are sold undecorated, their market being made simply on their merits of shape, body, and glaze. That these are superior to the foreign in every grade, from the ordinary Rockingham to the finest stone porcelain, may be seen by comparing specimens from the different countries.

The yellow and Rockingham wares of East Liverpool in form, body, and glaze are greatly superior to the British; the "cream-color," white granite, and stone porcelains will be found to excel those of the French and English not only in fineness of body, permanence and beauty of glaze, but in lightness and elegance of form.

The pride of Trenton is her stone porcelains, which can not be distinguished from French china except by holding them to the light. A beautiful dinner service in this ware, executed for an English order from Oxford, shows thin, gracefully handled oval dishes, platters and plates with

delicate desserts, decorated by bands of ivory heightened with gold, medallions, and sprays of flowers in colored enamels. A tea-service in underglaze blue and gold, and desserts in acid-etched work, also show the decorative capabilities of the American ware.

In stone porcelains America leads the world, but no extensive progress has yet been made in true porcelain. Excellent ware was manufactured in Trenton as early as 1853, a rustic pitcher and some covered dishes of that period showing a fine, hard, translucent body and excellent glaze. Like all the earlier porcelain ventures in this country, the Trenton enterprise failed for lack of popular appreciation and demand.

There are now hard or true porcelain manufactories in New York, New Jersey, and Ohio; at a pottery in the first-mentioned State we find, if we may quote from the official report of M. Ch. de Bussy, "a porcelain second to none in quality of paste and hardness of glaze." Most of the articles are double-thick for hotel use, but many charming services are delicately thin and translucent.

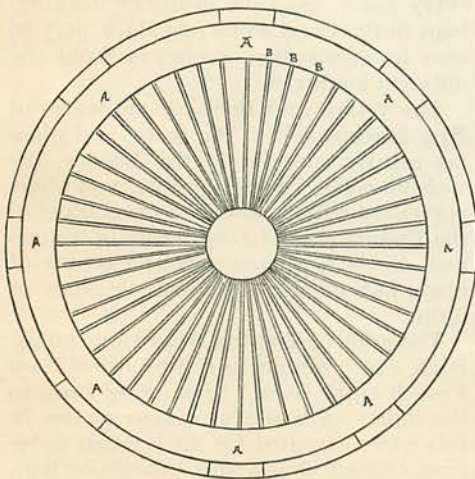
China of considerable excellence was produced in America previous to the Revolutionary war, but its manufacture met many discouragements. The quality of the materials could not be relied upon, and the workmen employed were generally foreigners, not always competent to perform the work for which they had engaged; besides this, commercial obstacles met the new enterprise at every point.

The lapse of time did not, it seems, furnish the potter with either reliable workmen or American clay with which to produce with certainty china equal to that of Europe. This fact led the late David Haviland, an American merchant, to visit Europe, and fifty years ago he located his pottery in Limoges, France, being attracted by the excellence of the kaolin found in the vicinity.

Mr. Haviland organized a training-school, for which he engaged competent instructors. The pupils from this school soon proved his most efficient assistants, and under his guidance they produced forms of such excellence that the potters of other nations almost invariably copied any new dish designed in the American potter's studio in Limoges.

While this is the case, one finds plates made in the Limoges pottery the decorations for which are from designs by the late Chief Signal Officer of the United States army, Albert J. Myer, and subjects selected from the writings of favorite American authors.

The state dinner service used in the White House by General Grant was made at the Limoges factory, and a set to replace it has recently been finished there. The new service was designed by an American artist, who selected his subjects from note-books used by him during years of an eventful life of travel and adventure in our country. Entirely new shapes were devised, and for nearly every course twelve characteristic drawings were made, illustrative of American flora and fauna, and objects which could be made to serve appropriately in connection with the course for which the dish or plate was intended; for instance, the ice-cream platter and plate are made in the semblance of an Indian snow-shoe, which Lord Dunraven, the hunter-naturalist, specifies as one of the three articles believed to be beyond improvement (the birch-bark canoe and the violin being the other two articles). The after-dinner plate is derived from a curious Indian plate captured by General Custer. The form of the fruit plate has for its original the leaf of the wild apple-tree. One of this series is decorated with a painting of two cub bears feasting upon huckleberries that have been abandoned by a youthful picker, who has gone home without his hat. The after-dinner coffee-cup, an admirable example of the pot-



SECTION OF PORCELAIN KILN.



SOUP, FISH, FRUIT, COFFEE, AND TEA DISHES, FOR THE NEW WHITE HOUSE SET.

ter's art, is taken from a joint of bamboo, a sprout and leaves of which form the handle. The soup plate is unlike the generally accepted dish for this course, and has for its original the flower of the mountain laurel. These specimens will serve to give a general idea of the originality and character of this new American service, some of the pieces of which have been pronounced by foreign critics to be "the handsomest ever made in china"; and the potters of Trenton believe that every prominent member of the craft in the United States will feel encouraged by the work, which, although the china was produced in France, they regard as essentially American, and likely to eventuate in the advancement of the pottery interest of our country.

Faience and majolica are also engaging the attention of potters in Ohio and New York.

For years to come the importations of plain and decorated porcelain, faience, and majolica must retain and perhaps slightly increase their present figures, effort as yet being limited in these directions. Enough has been done, however, to prove that there is in store for America a complete ceramic independence of the

countries that now supply her with the finest wares, since she possesses both the inventive genius and unlimited supplies of the best raw material.

North, south, east, and west lie inexhaustible beds of the richest kaolins in the world, endless stores of pipe, potters', ball, and fire clays, and unnumbered mines of massive quartz and feldspar.

In addition to these are mines of lithomarge in Tennessee; pools or reservoirs of moist brown, black, blue, gray, red, and yellow clays in Wyoming; treasures of tinted earths in Alabama and Ohio; and beds of pink, yellow, and white kaolins in Southern Illinois.

The United States Potters' Association, formed in Trenton in 1875 for the purpose of procuring regularly the statistics of the home and foreign trade, and providing for an interchange and diffusion of scientific and practical information to the profession in all its branches, has effected much in the late rapid development of the industry. The association, now comprising fifty-three firms, has founded a Free Evening School of Design at Trenton, to which those employes may be sent who evince a talent for drawing, modelling, or decoration.