Art Industrial.

PAINTING ON CHINA.*

BY FLORENCE J. DUNCAN.

THE United States covers four million square miles of the earth's surface. It is walled eastward against the Atlantic ocean by chains of mountains two thousand miles long, and westward against the Pacific ocean by chains of mountains two thousand miles long; the very geography of the country compels unity. Our continent, by the structure of its surface, unifies the human race. All toil together, and build up the vast dominating future of the New World—a nation of laborers—each man, as he is born, putting his spade to the soil, his pick to the rock, his hand to the wheel.

Porcelain is still called by the name of the only country whence it came for centuries; it is said that the Chinese invented the manufacture of porcelain two thousand years ago; it is certain, however, that they still decorate their ware with patterns two thousand years old.

For many centuries porcelain came piece by piece from the country with the "great wall," and was called by its name, China; European potters, step by step, penetrated the mystery of its manufacture, and the one great difficulty with which they had to contend was the rarity of the materials. The United States Government surveys have found our great undeveloped West rich with these untouched treasures. Lustres for precious wares are locked up in the mineral ores. Mountains of sand stand sentinel till manufacturers come to transform their whiteness and purity into light for thousands of homes; there stands a stilled volcano of beautifully colored clays; here lie almost inexhaustible beds of kaolin waiting for modern Prometheus, and soils are strewn with gems holding brilliancy for the potter's and the painter's palette. On lands to be had for five years' cultivation, under the homestead law, lie all the material necessary for a glorious future for American art industry.

Women generally are opposed to emigration, because they know no other side to going west than the life of a farmer's wife, uncertain of needful help, but certain of hard monotonous labor—a life of isolation too often terminating in insanity. Farmers in sparsely settled territory complain of "spots that won't grow anything"—the most valuable part of their land—it is full of potash. Could women but see that there is future work for them, which will occupy the head as well as the hands—labor which from its very nature means association of laborers, a colony which must include cultured eyes and brains as well as hands—if they know that there is artistic employment for their daughters, a handicraft for their sons, and business for their husbands, part of its stock in trade being not only machinery, but thought, books, vases, pitchers, the literature of the past, the newspapers of the present—all may go west with their love for color, their taste; their husband's work is more valuable to them as it is touched by their own sphere, home, making it beautiful, adding to the refined surroundings of life. This wave of interest that has swept the country from north to south, under the guise of a "ceramic rage" among women, may be directed in a path which will lead not alone to individual prosperity, but to the dignity and civilization of the people. Seen in this light, an amusement of to-day which may lead to the occupation of to-morrow is no trivial matter.

* Unpublished MS.

The Japanese are many steps ahead of the Chinese in design, though it is but three hundred years ago that they captured a few Chinamen and made them work at manufacturing, and teaching the Japanese to make and decorate porcelain. Ask the price of Japanese *cloisonné* if you wish to see how successful this experiment of domesticating labor has proved.

Following the lead of our own quick-witted countrywoman with her Japanese fan, we find in addition to the brilliant color put on in masses, thus contrasting well with surroundings, that the Japanese do not repeat themselves in the same piece of work; when not a background the same form is not endlessly used, and even backgrounds are made up of several patterns. A few hints in observing the characteristics of Japanese design will help you to select that which may assimilate, especially as the aim of art industrial teaching is not only to recommend proper food but aid in its digestion.

The difference between Japanese and French china in presenting or suggesting ideas is as widely shown as in French and Japanese fans. I speak of fans particularly because American women have been quick to see this. French fans, when you pay a high price, are beautiful and effective, but many an "imported fan" is decorated here, and those who had not sufficient knowledge of art to decide for themselves, and yet could not afford for the indorsement of good taste by buying at Tiffany's, were quick to see that a Japanese fan could be bought of such a brilliant color that it contrasted with their dress and surroundings. It was so decidedly Japanese, and not an imitation of anything else, that no other woman could point it out as a cheap substitute for a more expensive original. I say it *was*, because the Japanese already are manufacturing monstrosities supposed to be specially acceptable to American taste.

We are having the same influence on Japanese manufacture that England has upon the East Indian. The Doulton ware shows how well some English artists studied, not copied, Hindoo achievements. The dots which you will soon notice as a feature of the Doulton ware are dealt with in a masterly manner by the Hindoos. The French have culled the cream of Chinese color and characteristics on some of French porcelain.

It is because we are surfeited with the similarity produced by the perfection of machinery, that this changefulness of form, this balance of color is agreeable. This rage for Japanese decoration springs from the same source as the respect for "handwork" which the mass of women have always fondly cherished, and has now become a feeling shared by the men who buy machinery. Women openly say they "don't want to wear what every one else does." This feeling has of course its ridiculous side, but it springs from a sublime sentiment. What is a desire for the display of individual taste but womanly approval of individuality? If you ask about the "careless (?) grouping" which many writers rave about as Japanese, thereby recommending, or seeming to recommend, carelessness, what do you think yourself about the beauty of the dress on which the stitches show? Those who recommend carelessness as an element of beauty are striving to impress you not to run into mechanical repetition of lines and forms, which affect a cultivated taste as stale soda water does the palate; for care, thought, purpose are just as necessary in a decoration as a seam in a dress When that care and thought force themselves on the attention, like the stitches which show in the seam, care and thought give as little pleasure as a "studied attitude." Is it not a maxim of manners among women, "It takes art to appear artless?" Decorative art is no violation of human nature; it is a shorthand form of expression. Let us see how the Japanese obey the principles. Put before your eyes a fan with its long palm-leaf handle.

Ornament must follow the line of construction.

The fan is bound with a narrow strip of crimson paper, which attracts the eye and defines the paper form at once. There is a ship, and one line of the sail follows the line of construction of one side of the fan; the side of the ship's body repeats another part of the fan. On the other side of the fan the ornament is exceedingly simple—a delicate blue color, strongest near where the sticks radiate from the handle, is crossed by the lines of the rigging of the ship. These lines, for they are only suggestive lines, "follow," *they are not parallel* to "the construction." A blackbird is flying down toward the ship; from the beak to the end of the wing, it is one subtle curve; it follows that part of the fan near the handle.

Colors must not be allowed to touch each other—must be separated by lines of white or gold or black or red.

The fan observes that oriental rule which is the charm of Persian carpets. If you closely observe a Japanese porcelain, you will see that a strong black outline defines every form and separates different colors. Examine porcelain painted in one color only, as that should be your first practice: a white bowl has what children would call a tit-tat-to pattern slightly curved to follow the construction of the bowl on the outside in a blue derived from cobalt. On the edge of the bowl is a strong blue line. The inside is decorated with a plant-suggesting form, and four curved grass-like lines follow the sides of the bowl in four different ways. Turn the bowl as you will, you will see something, some blue form is visible. Take the plant from the field or a florist, hold it under a light under a sheet of white paper; now compare the shadow on the paper with the Japanese blue ornament and you see their method of working.

A mass of color, a suggestive form suggested by drawings from nature.

Do you see from Japanese steps how you may make drawings from nature at once for porcelain? If you slavishly copy Japanese ornament, you will choke your fancy, stint your imagination, and narrow your individual talent. The variety of their work is so cheap and so plentiful that Japanese knick-knacks may be easily examined, and make it easy for you to study and adapt their beauties to your own use.

Very effective sets of china have been painted by artists who draw well on paper in one color. If your talent is for color, this talent only needs proper direction and appropriate instruction for the form it is to take in the careful outlines which must bind the exuberance of color into a beautiful whole. I should not say "stop" at any experiment you choose to make, because experience has shown that many sensible women who began painting for amusement found that they had some ability undeveloped, thus felt encouraged to draw, and studied as thoroughly as a man learning a profession.

Painting on porcelain is done in two ways—before the dish is dipped in the glaze, called "under glaze" painting, the other "over glaze" painting, such as you see on the dining table. You may begin to paint any piece of "china" or stone ware you may possess. If you wish to spend as little money as possible at first, simply buy one or two tube colors ready prepared for work, as you will not need so many materials as if you bought the cheaper powder colors and all the accessories.

Buy a tube of *La Croix sepia* or *bleu ciel* (sky blue), each 30 cents. Put some turpentine in a bottle to thin the color. You may use water-color brushes. With tracing paper trace the design you wish

on the plate, and afterward go over the outlines with crimson-lake, which will render them less trying to the eyes, for with all proper precautions painting on porcelain is very hard on the eyes. Select a room uncarpeted to paint in, and provide yourself with a covered box in which to place your work until it is dry, and when dry until you send it away to be burned. Dust is dreaded by the housekeeper, as it makes work, but to the painter on porcelain dust is the ruin of days' work. It is well to wipe off your plate with a cloth moistened with turpentine, before you place your tracing paper over it or draw the ornament in crimson-lake at once. Provide yourself with a bottle of alcohol in which to wash your brushes, a horn palette—for one of metal would injure your colors —a rest for your hand, a piece of wood, six inches wide and eighteen inches long, fixed to the table by a screw passing through both rest and table and kept in place by a nut. [A movable rest may be made by fastening supports to both ends of a piece of wood, which shall stand over the china you are painting and allow your hand to rest thereon.] You may *manage* with a wooden block or small piece of board. If you buy more than one color, your first step is to fill a plate or tile very full of your different colors and send it to be burned, having first marked each tint carefully. This is a guide for future use. The value of La Croix tube colors is this: they are vitrifiable colors ground in fat oil of turpentine, ready to use as you would oil or water-color tubes, only you thin the paint with turpentine instead of water or oil. Lists of La Croix colors may be had at any art-material shop.

As the proper mixture of the colors is necessary in order that the plate shall come out of the firing with the colors fixed and not blistered in spots, and as this grinding is careful work, you may perceive why La Croix colors are more expensive and convenient than the powder colors. Vitrifiable colors cannot be mixed as easily as water or oil colors, therefore do not squeeze out of the tube more than you shall need for a day's work. Prop the tubes up, as by letting them lie flat too much of the oil of turpentine comes to the top of the tube and impairs the ease and success of your painting. When it is necessary to dry your painting, place the painted plate or saucer in the oven, or, if you paint in a room in which there is no stove, a small kerosene stove will answer. Place a tin lid or stove-cover on the top of the stove over the flame before placing your painted plate there.

As you may with bands and dots and combinations of color produce decorative effects, even if you cannot draw well, add to the sepia and *ciel bleu* you already have the following La Croix tubes: *Bleu outre mer* (ultramarine blue), price, 45 cents; *Jaune à mêler* (yellow for mixing); *carmin foncé*, No. 3 (dark carmine), 45 cents; *brun jaune* (yellow chrome), 30 cents; *ocre* (ocher), 30 cents; *vert pomme* (apple green), 30 cents; *emerande* (emerald green), 30 cents; *noir d'ivoire* (ivory black), 30 cents; and *blanc Chinois* (Chinese white). These will mix with any other color, and give opacity and body. This is analogous in many respects to the use of white in illumination, the study of which will help you greatly in decorating porcelain, as many of the ornaments seen in illumination can be applied with little transformation.

Gilding is always done the last thing—always over glaze, never under glaze.* A bottle of gilding preparation costs one dollar. Gilt bands or decorations are put on at a reasonable rate where the porcelain is burned. The cost of burning a piece in New York is ten cents. Mr. Bennett charges twenty-five cents, as he does it only to accommodate students, and not as a business. It is needless to say the colors come out exquisitely.

A medium in painting is any liquid or material which will mix with powder colors, and then enable you to place the color on any desired surface. It is the means with which powder colors are made to gain your end, *i.e.*, painting on any special surface. The medium therefore varies with the surface. Volatile oils and liquids which evaporate rapidly like turpentine are valuable mediums. The oil of sassafras is the most volatile. The oil of lavender or, as the cheaper variety is called, the oil of spike, is the favorite medium or vehicle used by enamel painters. Decorators on china often simply dip their brush in turpentine to lay on the colors, as it is cheaper than the perfumed oils. If you wish to remove a color, your brush wet with alcohol will do it at once. The oil of tar is useful in painting fine lines, as it does not run. The odor of oil of cloves is, as you know, more pleasant than the oil of turpentine. The West India natural balsam called copaiba is colorless, and useful to keep the color on your palette, whether of china or glass, while you are painting. All these oils may be bought at a reliable druggist's, as well as an art-material store. English and German colors may be bought in powder at the art-material stores. Professional decorators sometimes mix French and English colors, the French having more brilliancy, the English more delicate shades, and both firing at about the same temperature; but the amateur must be careful not to mix the colors of different manufacturers together, or use different kinds in the same dish. Flux, which is bought separately, must be mixed with each color when ground.

Powder colors are mixed by grinding them with a glass muller very finely, after pouring about as much oil of turpentine as powder on a ground glass slab; turpentine is added, as this sticky mass would soon become unmanageable without.

Tinting a cup all over is done with powder colors. The colors are blended with a dabber made by putting cotton in a tiny ball tied up in muslin, held by the muslin ends in the hand. After being thoroughly ground and allowed to dry the colors are put in small homeopathic medicine bottles. A china palette, with many little wells to hold the colors and a cover to keep it from the dust, will cost $1.25. Colors may thus be kept for many days. No dust must be allowed in the color mixture. Strain through a coarse cloth after mixing as a precaution.

To take off an accidental speck of dust, use a needle fastened in a wooden handle. This cheap tool may be used to get the effect of a white design on a dark ground by using the needle as you would a pencil, on the colored ground; it scratches out the color. You may also use this needle in painting leaves. After the color of the leaf has been put on with one painting, scratch out the veins, thus leaving lines on the porcelain to paint darker or lighter veins with another color.

Where the painting on porcelain has made a village famous, the colors are burned after each painting; but those general facts in coloring found by experience in water colors, in staining woods or painting on paper, are analagous: for instance, if you wish to deepen carmine in illumination, add a touch of brown madder (maroon) or blue; in porcelain painting this produces brilliant results. Lines are painted on china at a trifling cost at the china burner's.

If you cannot easily procure oil of turpentine, make it by putting a few drops in a saucer for a few days, adding a little each day until the evaporation has left a thick oily substance on the saucer. It is always better to buy the oil, for as no dust must be mixed with it the above method is very difficult to insure perfect success.

The advantage of taking a lesson after experimenting yourself is very great, as the teacher then can advise so as to bridge over your *individual difficulties*. Mr. John Bennett, of New York (formerly superintendent of the Doulton School at Lambeth, England), charges $5 for an hour's lesson, but in order to get the full value of his valuable advice it is necessary to have drawn a sketch-book full of flowers from nature, paying strict attention to the chief characteristics, *i.e.*, how the plant grows, the type of the leaf, and whether climbing or trailing, etc. If you write to the Ladies' Art Association, New York, you will also be told that this is the best preparation, but they, knowing the difficulties women have to contend with, knowing the deficiencies of art instruction all over the country, are well fitted to counsel you in your special difficulties, owing to the fact that they were the first in the United States to provide instruction in painting on porcelain. Letters from Maine to California are constantly received by them; for that reason, when writing for advice it is but just to inclose a money order for three dollars, for it cannot be expected that these artists will spend their time writing you the information they have paid for with money, brains, and labor of years to gain, for nothing. Brain furnishing ought to be paid for as well as house furnishing.

A vase ornamented with flowers painted by John Bennett, of New York, or a plaque with a face or animal by Matt. Morgan, of Philadelphia, would be of vast use to the beginner, and could be bought for from ten to fifty dollars. Both artists paint rapidly, both experiment all the time, and a decoration by one of them would be a constant lesson in the value of broad effects.

* Mr. Bennett has a vase with gilt painted under the glaze.

My Housekeeping Class.

BY MRS. M. C. HUNGERFORD.

"WHAT little I can tell about setting a tea-table," I say to Miss Lucy Little, "you shall certainly hear this time. The other day our meeting was like Artemus Ward's lecture upon the 'Babes in the Wood;' he said all he had to say, and omitted to mention them at all."

"We have tea once a week," says Jennie, "because we dine in the middle of the day on Sunday. Mamma does not like it much; neither do I. But papa says it carries him back to his early days, and he always insists on having shaved smoked beef and great big doughnuts, because he used to have them at grandma's when he was a boy. He doesn't mind how much flummery the rest of us have, but he always eats his old-fashioned things, and has a good time. We used to have an awful time getting the doughnuts for him, for he could tell in a moment if they were bought at a baker's. Aunt Eliza used to send us baskets full down from the country as long as she lived."

"Why don't your cook make them," asks Miss Kitty, "if you must have such things?"

"She does when she knows how, but that doesn't often happen. No, we have given up trying the greasy abominations that professed cooks treat us to, and where do you suppose we get our doughnuts now? You need not try to guess. I make them myself every Saturday, and they are just as light as feathers. The first I made