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"Thirst" Panel shown at Columbian Exhibition,
by the Low Tile Company, Chelsea, Mass.

THE CRAFTSMAN

Vol. IV June 1903 No. 3

Potters and Their Products

IRENE SARGENT

CLOSELY following upon the art of tilling the soil, the arts of the spinner, the weaver and the potter arose for the convenience and the embellishment of human life. The last named function fell especially to the potter, by reason of the substances in which he wrought and the uses to which his finished creations were put. His products, at once satisfying primary needs and ministering to the aesthetic sense (which is developed early in the course of civilization), have continued to be essential and interesting to all races and all conditions of men. The art must necessarily advance with the life which it serves, and it is safe to predict that it will hereafter pass into phases of which, at present, we have no conception. Although the union of use and beauty in fictile objects attained, among the ancient Greeks, the greatest perfection that it has yet known, this union, dissolved for ages, seems now on the point of being renewed in a modern sense. In the simple life of the most symmetrically developed people known to history, vases served one of the most extensive material uses of daily life. Not only were they vessels for serving food and preserving foodstuffs, like their modern descendants, our own jars, pots and dishes: they were, beside, all that our tables, desks, chests of drawers, trunks, wardrobes and presses represent in our complex life. On occasion, indeed, they were large and substantial enough to house the homeless; as we know from the case of Diogenes, the Athenian, whose "tub" was a great earthen vessel, properly represented, no doubt, by the French painter-archeologist, Gérôme, when he pictured the visit of Alexander the Great to the philosopher. The size of the vessel there shown excites doubt in the mind of the spectator unacquainted with the history of ceramics. But one interested in this branch of the useful arts, proceeds to imagine the "tub" as having been a vessel designed for

some mercantile purpose; as having been stopped in its career of usefulness by breakage, as the great shard wanting in its side witnesses; and as carried outside the walls, in accordance with the strict Athenian laws that nothing should pollute or litter the city.

The lover of the potter's art delights to be brought into contact with the remains of classic antiquity. He wishes earnestly that the great *amphorae* might again be brought into service, if for no other reason than to please the eye with their beautiful, graceful forms. But an aesthetic revolution, a destructive Reign of Terror, in all that concerns household and farm utensils, would be necessary to reinstate a rule of simplicity comparable to that which prevailed among the rich landed proprietors of Greece and Italy, when they preserved their corn, wine and oil in earthen jars; the vessels being perfectly adapted to their use and, at the same time, modeled upon the most graceful and subtile curves known to mathematics: the slender, pointed termination serving to bury the jar in the sand of the cellar, so that the foodstuff contained in the vessel might be kept pure, and the two handles from which these vessels derive their name (*amphi,* both, and *pherein,* to bear) filling the double office of use and beauty. Such specimens we have seen preserved from the excavations of the house of the Roman empress Livia, on the Palatine Hill, Rome, or *in situ,* in the so-called vine-vaults of Diomed, at Pompeii; we have them also no less perfectly preserved in the verses of Horace, and we can only wish that it were possible to find vessels as inexpensive, as adaptable, as beautiful as these, doing service, among our rural people. The conditions of climate which determine production, and our modern modes of life do not permit us to adopt the antique and exotic shapes, however exquisite they may be, but these "museum objects" can teach us the valuable principles so well understood by the Greeks and by the modern Japanese as well: that we should possess few objects intended for pure ornament, but that our things of daily use should be educative and artistic.

To accomplish by exertion that which has been effected without effort by natural endowment is difficult, if not impossible. But it would now seem that, in the decorative and the lesser arts, the Americans are advancing rapidly to join the beautiful with the

useful. And in no division of the many-branched subject is the tendency so evident and so praiseworthy as in the art of the potter. The use in many instances of the material nearest at hand; the regard for intrinsic value pure and simple absorbed in the desire to create something of higher merit; the conversion of the ugly into the beautiful by the power of care and thought: all these elements of success have, in this art, as practised in our country, wrought their usual results: which have been as usual, slowly attained, but which are well worth all the anxiety, labor, resources and devotion they have cost.

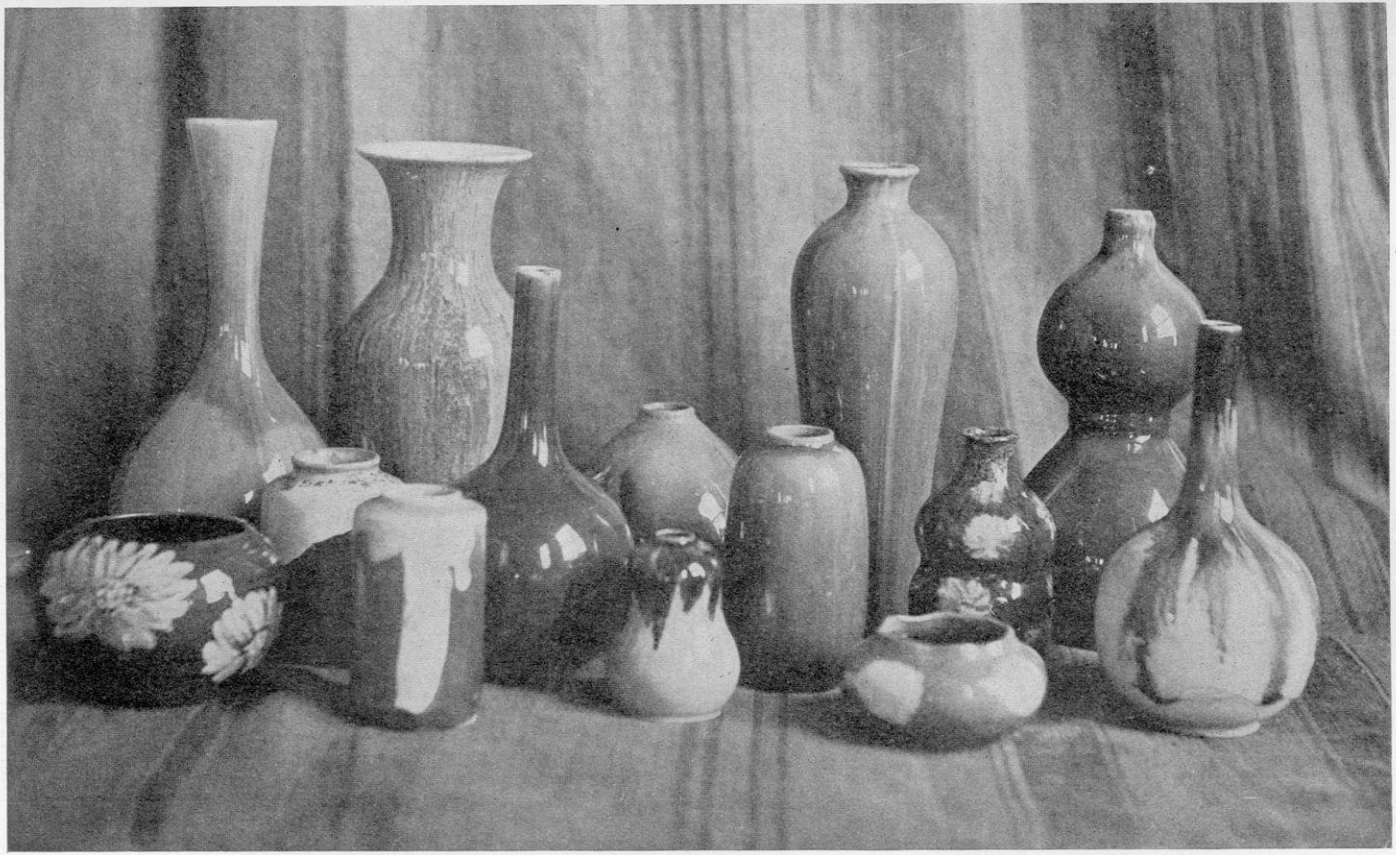
Difficulties successfully surmounted are soon forgotten, yet for the encouragement of struggling craftsmen in other branches of experiment, it is not time wasted to indicate a few of the more serious obstacles which confronted the earlier American potters and delayed the development of their art until recent years. The first was a commercial obstacle. For, until 1861, the low import duty prevented the native potter from competing with the foreign producer, even in simple, domestic wares. But once the incentive given by a protective tariff of forty per cent., the development of the industry proceeded with wonderful rapidity, as we may find by reviewing the gratifying results of the last four decades.

The second obstacle lying in the path of the earlier American potter and one not yet wholly removed, was the disregard of the public for native work: a prejudice so deep and extended as to cause the most sincere American producers to disguise their wares under foreign names and marks. But this precaution is a necessity of the past; the excellence of American work is recognized, perhaps, even envied abroad, and the visitor to the choicest, most exclusive shops of London and Paris observes with pleasure that the chief ceramic productions of the United States are shown side by side with the old and world-famous wares of England and the continent. And not only should this result be pleasing to every patriotic American; for the means which led to the result, are equally to the credit of those who employed them. Our native pioneer potters had neither royal protection nor wealthy and noble patrons to foster their talents and work. The Government under which they labored lent them no material or artistic support. Thus,

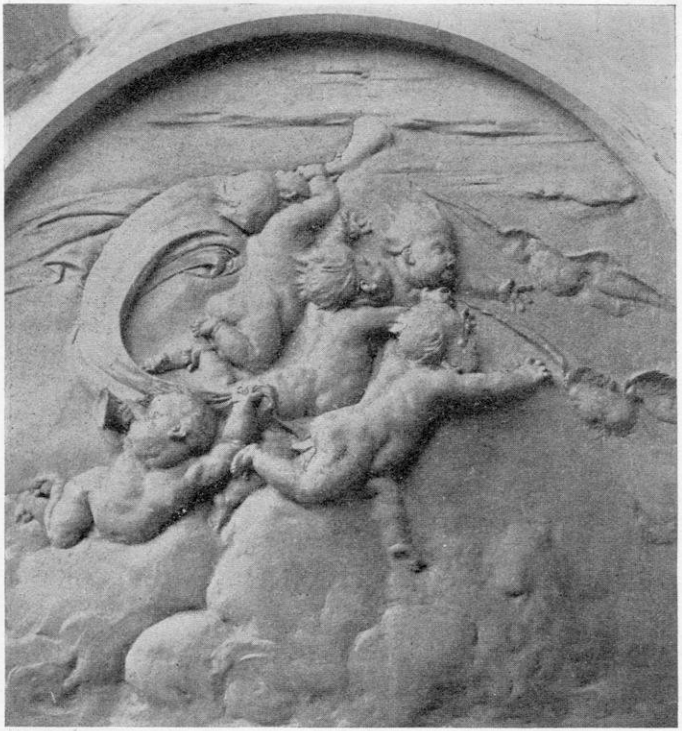
forced to take themselves the initiative, having formed a national association in 1875, they proceeded to found schools at various points of the country (Philadelphia; Trenton, New Jersey; and Cincinnati, Ohio) for the instruction of those workers in potteries who might display talents for modeling or for decorating.

In the case of the measure just described, history never fails to repeat itself. School studios, since the times of the masters of the Middle Ages and the Renascence, have been the most powerful factor in developing art, and to cite an instance no more remote than that of England in the nineteenth century, it was technical schools that caused, within a single decade, the rise of British ceramics to a point sufficiently high to warrant the sending of a commission from France charged with investigating the causes of such rapid development. The establishment of similar studio-schools at Limoges, France, fifty years since, laid the foundation of the Haviland fortune, and, better still, wrought much for the advancement of the potter's art. The association and collaboration of American potters supplied the place of government support, and, to-day, the future promises as great rewards of success and reputation to them as to the great private enterprises of England, or to the potteries controlled by the most powerful governments of the Continent.

Beside, to further the progress of the ceramic art among us, we have all natural aids and resources. We possess not only our recently developed skill and our growing artistic sense. We have also a great variety of clays, an abundance of fuel, together with cheap and rapid means of transportation. In considering our mineral riches which are adapted to ceramic uses, a recent investigator has made the following interesting statements: "In nearly every section of the United States, materials are now known to exist in great quantities, only awaiting development and improvement. Fine deposits of kaolin are found in Delaware, South Carolina, Pennsylvania, Missouri, Illinois, Indiana, Connecticut and New York. New Jersey is rich in ball and fine clays. Feldspar and quartz, or silica, abound. Our mines and deposits are simply inexhaustible, surpassing any found in Europe, and, in a few years, with better facilities for preparing the materials, the cost of the



Group of Vases in Chelsea (Mass.) Faïence



"Air" and "Water" Panels shown at Columbian Exhibition
by the Low Tile Company, Chelsea, Mass.

same will be greatly reduced. For these discoveries of valuable deposits we are indebted to the state geologists who, within a comparatively short period, have brought to light these facts concerning potters' clays."

Owing to this acknowledgment of the resources at their command, our native potters are rapidly extending the uses of their productions; to the end that their art may utilize and be found equal to the means so generously provided by Nature. They are also skilfully adapting this wealth of material to the production of all varieties and distinctions of ceramics known to the craftsmen of the Old World.

Such varieties and distinctions are found stated with more or less precision in every manual relating to the fictile art. But yet, as the greater number of individuals are "eye-minded," and as fine points of difference are liable to escape all save the experienced, a few words regarding the principal classes of ceramics will not be here amiss. These classes, strictly limited, and represented by the specimens most generally produced and seen in America, may be defined under the heads: Stoneware; Terra Cotta; Faïence; Porcelain.

The first-named composition, Stoneware, is formed from clay and sand, and glazed, not by dipping or painting, but simply by throwing salt into the kiln when the ware is nearly fired: a simple process which perfectly vitrifies the surface. The ware is strong, impervious to the action of acids, and therefore peculiarly adapted to use in household utensils, chemical and sanitary apparatus. Its possibilities of beauty, too, are large: these arising from the colors of the clay employed, which are a rich Rembrandt brown, cream-white and gray approaching a slate tone. In the European model we find the *grès de Flandres:* that is, the gray variety, fashioned into the favorite "Graybeard," or "Bellarmine" "steins" or tankards, decorated with sculpturesque and detailed designs. On the contrary, in the most artistic specimens of the same ware made in America—barring those which are purely imitative of the German or Flemish originals—the historical decoration is abandoned in favor of floral patterns applied in cobalt blue; as is instanced in the admirable "Frackelton blue and gray," which can not be too highly

praised as a use of the simplest materials and processes to the attainment of a most artistic result.

The ceramic products included in the second division, Terra Cotta, are, for the most part, in America, devoted to architectural purposes. Such specimens are made largely from vitreous clays, and appear in red, cream and pure white,—in the latter the least often; as, in this case, the requisite degree of hardness is attained with difficulty. The qualities possessed by this variety of Terra-Cotta are such as fit it for exposure. It is non-absorbent. It resists fire and corrosion to a great degree, and for the architect it is a medium easily treated, in either mass or detail.

The first Terra-Cotta Works in this country were, presumably, those established by Abraham Hews, at Weston, Mass., previously to 1765, and which, a century later, were removed to North Cambridge, in the same State, where they are still conducted by a direct descendant of the founder. This pottery made itself famous for its reproductions of antique vases and its fine models of fountains and other garden ornaments; while more recently established works, at other Eastern points, in the Middle States, the West, and even the South, devote themselves to the production of subjects in relief, designed for either exterior or interior decoration. Terra-Cotta, the most durable of all building materials, has been structurally used since remote times in continental Europe. It was thus treated with special success in Italy, during the Renascence, and it was introduced thence into England, as early as the fifteenth century; there attaining a peculiarly attractive and distinctive style. Upon the occasion of its first use in America, at the middle of the nineteenth century, it was ill-received by architects as a body; but it has advanced in public favor, until it is now seen in pediments and panels, friezes and figures, playing a role at once structural and decorative, and it is recognized as an important, rich, and pliable medium of artistic expression. Assuredly in this branch, as in several other classes of ceramics, we have just cause for pride in our native potters, who have adapted old ideas to new conditions with a brilliancy all their own.

We have now reached the third of the four classes of ceramics to be defined, and the one which includes the greatest number of

American wares. This class is known under the generic name of faïence, a term somewhat loosely and inaccurately applied. When we hear it, we recall the old Italian town, Faenza, whose potters were renowned toward the end of the fifteenth century: they producing a ware coated with a stanniferous (tin) glaze, and which was copied extensively, in all that relates to material and process, by the Frenchmen who produced the Rouen ware so eagerly sought by collectors, and the Henri Deux Faïence, whose rarity and beauty are too costly to be found outside of national museums. But as the word faïence is now used, it is, like charity, a cloak for a multitude of sins, and under its name are perpetrated many crimes in ceramics. It is discussed by Webster, with that lack of scholarship so often chacteristic of his definitions, as: "a collective name for all the various kinds of glazed earthenware and *porcelain.*" To modify this statement, it must be remembered that faïence is pottery, and not porcelain: the distinction between the two divisions being that the former is opaque, and the latter translucent. Further, the term, as accepted in America, receives sufficient explanation in the book upon "Pottery and Porcelain of the United States," by Dr. Edwin Atlee Baker, who defines it as the name applied to our native products of underglaze pottery, notably the Rookwood and the Chelsea (Massachusetts) wares.

Our fourth division of ceramics is less difficult to establish than the preceding one, and yet, it contains its own contradictions. The three essential qualities of Porcelain are hardness, whiteness and translucency: hardness being understood in the potter's sense: that is, a strong power of resistance to fire; whiteness and translucency being accepted in relative degree, as, in some examples, the translucency is very slight, while in the same or other cases, the paste may approach a creamy tint. A more subtile difficulty of classification occurs in the sub-division of porcelain into two varieties, according to certain qualities of substance. Regarding this distinction, M. Louis Solon, once of the Sèvres, and afterward of the Minton, England, Works, has thus authoritatively expressed himself:

"Porcelain is the generic term employed to designate all kinds of pottery to which an incipient vitrification has been imparted by

firing. This translucent pottery may be broadly divided into two classes: 1. Hard Paste, containing only natural elements in the composition of the body and the glaze. This is the hard porcelain of China and Japan, and that of Europe made upon the same principles. 2. Soft Paste, where the body is an artificial combination of various materials, agglomerated by the action of fire, in which the compound called a *frit* (sand and alkali) has been used as a substitute for natural rock. The glaze with which this is covered is a glassy mixture. To this class belong the early Italian and French porcelains (Sèvres before the middle of the eighteenth century), and the larger part of English china." Extending this definition, Professor Charles F. Binns, in his "Story of the Potter," thus comments: "The constituents of hard porcelain are china-stone and china-clay; the former being a soft granite known to mineralogists as pegmatite. The glaze consists largely of pegmatite mixed with a small quantity of alkali, usually obtained from the ashes of some plant. Soft porcelain is altogether different. In this, the *frit* (which has been subjected to heat sufficient to cause its two elements to unite) is crushed and mingled with certain other substances, including a little clay to give some slight plasticity, and when the required articles are made, they are subjected to a degree of heat that causes a certain amount of fusion. In this case, the glaze is, for the most part, composed of red lead, sand and clay. It will thus be seen that the Soft Paste is only a clever substitute, or makeshift. But in the absence of the true constituents the potters made the best of a bad situation, and so well did they succeed that the soft porcelain exceeds the hard in beauty."

With the above-quoted comments the description of the wares most commonly made and seen in the United States may end, and we may now advance to the consideration of certain specific products which, after a short experimental period, have made a number of our ceramists prominent among the workers of the world, and, which, in a few instances, now claim the first place among the modern articles of their kind.

A typical example of these points occurs in the case of the Low Tiles, produced by the noted pottery, at Chelsea, Massachusetts, of which the history is interesting and significant from several points

of view. It is the story of a brilliant success based upon the severe struggle of one man against the wealth, experience and solid reputation of many powerful opponents.

The enterprise dates from less than a quarter of a century, and began in 1879, when Mr. John G. Low turned his attention to experimental pottery, after having studied in Paris as a painter under both Couture and Troyon. Thus to the art-craft in which he was destined to attain such happy results, he brought a technical knowledge of drawing, modeling and, above all, of color: the basis of his success, as we may now see by reference to the characteristics of his beautiful products. At the outset, he lacked the practical use of his medium, and this he was forced to acquire slowly, painfully, and with great pecuniary loss. The problem which he set himself was how to produce in America, at a moderate cost, tiles similar to those of English make, which were the result of tedious and expensive processes, but which yet controlled the markets of the world. He first applied himself to methods of bas-relief decoration, in which lay the greatest difficulty of the entire scheme. He was confident that if he could master this first process, success lay before him in large measure. At his press, therefore, he worked early and late, for a period of nearly two years, repeating the experiences of the potter Palissy in all save the bitter poverty of the staunch Huguenot. Mr. Low's struggle was indeed that of "the survival of the fittest," and to it he sacrificed all the modern resources of his craft. His continued experiments with clays, glazes, fires, fuels and kilns seemed a study in the mathematical laws of permutations and combinations, with the desired result dependent upon an infinitesimal quantity. The story of the struggle—especially of that part which relates to the press—was dramatically told by the artist, Mr. F. D. Millet, in the Century Magazine for 1882, when the events were yet fresh and the triumph was new.

The relief tile as definitively produced at the Low Pottery and, indeed, as it is made at all other tile works in America, follows a method for making buttons which was patented in England some sixty years since. This, known as the "dust" process, consists in slightly moistening the dry, powdered clay and subjecting it to great pressure in dies containing the designs to be impressed upon

the tiles, which are afterward glazed or enameled. These relief tiles, when perfected, became the best-known product of the Pottery, but the experiments incident to them caused the invention by Mr. Low of a process which he styled "the natural." It suddenly occurred to him—as he relates through his sympathetic biographer, Mr. Millet, that it might be possible to stamp any form whatever upon the face of a tile, just as the name of the maker is stamped upon the back. Acting upon this thought, he seized a mullein leaf near at hand, and, after pressing it into a newly made tile, removed it to form a matrix. This concave mould he lined with tissue paper, over which he piled a mass of prepared clay or "dust," and having exerted a strong pressure upon the whole, he formed thus a double tile, which, upon the removal of the thin paper, separated into two parts: the one bearing the impression of the leaf in *rilievo,* the other in *intaglio.*

Thus occupied with processes which, suggested by some rapid thought, were perfected by infinite care and pains, Mr. Low was surprised in the midst of his labors by the prize which he won over twelve strong competitors at an exhibition held at Crewe, the center of the tile-producing region of England. This event, it is said, has never been equaled in the history of ceramics, for it gave immediate reputation as a potter to one who, three years previously, had known nothing of the art-craft in which he had so rapidly risen to distinction, at the expense of the most experienced, laborious and intelligent toilers in clay. Upon this subject our consul at Liverpool addressed to the Government at Washington a note in which he declared that "Mr. Low, an absolutely unknown American, had bearded the British Lion in his den and carried away his laurels."

Closely following upon this reward came extensive home patronage, and the Low tiles came to be accepted by the public as worthy substitutes for those of the Minton and other famous English works. At the end of three years, the struggle which we have outlined was finished, a reputation was made for an experimentalist at once patient and bold, a new American industry had been developed, which was to offer an incentive and example, and thus effectively to aid the economic interests of our country.

Acting with true New England foresight and prudence, Mr. Low did not pursue his artistic schemes to the detriment of his business interests. Together with exquisite, sculpturesque tiles destined for purely decorative purposes, his pottery undertook the construction of soda-fountains, the decoration of cast-iron stoves, with panels and tiling, the wainscoting of bath-room walls, and other similar commissions. By this means fortune was made to follow reputation, and the artistic phase of the enterprise was assured development and permanence.

Among the early successes of the Low Tile Company was a panel or large tile, in low relief decoration, outlined with the profile of an old, bearded man, drawn in flowing lines. The surface of the pottery was undulating, and the picture appeared to float upon it, like a shadow upon a wave. The color too was significant: the vitreous glaze being of greenish hue, like water struck by a strong ray of sunlight. The whole: outline, color and surface, had a tremulous character perfectly in keeping with the subject, and the title-legend, "When Age Steals On," faintly stamped in relief beneath the head, seemed about to disappear, so that the eye sought it again and again to make sure of its presence. This subject was long a favorite with the fickle public, and it passed into many museums as a fine, unusual specimen of American ceramic art.

A decade later were produced the three panels shown in our illustrations, and which were exhibited at the Columbian Fair. They are named "Air," "Water" and "Thirst," and are remarkable for their beauty of treatment: being reminiscent of the best art of the Renascence, and yet sufficiently modern to be without affectation. Each of the three subjects has its individual charm. In the "Air" panel, the wind-cherubs suggest a wide range of old masters, with, perhaps, Rubens predominant. They recall, too, the pictorial compasses seen in the pavements of Italian churches, like the one in the Piazza of St. Peter's at Rome, where chubby genii are pictured, blowing upon conches to various subdivisions of the four quarters of the heavens.

More pleasing still is the "Water" Panel, with its group of children and dolphins: the waves serving as a transparent drapery to one of the babies, and the fish gathered into a school, such as we

may have seen playing about our steamer during our last Atlantic voyage.

The "Thirst" Panel abandons the light, graceful treatment of the two preceding subjects, which have something of the old Greek delicacy, to assume the dignity of the best Italian art. The architectural effect, the great concourse of people, the figure-drawing, the old men's faces are Venetian, the story is told with Giottesque facility, detail and variety, and, better than all, there is an earnest, strenuous quality which is the sign manual of the highest American art.

It must be with a feeling of pride and joy that we study productions such as these, which have behind them a story of severe struggle and endeavor—like that of the plant-germ which, preserved through the unpropitious season, feels the first impulse of spring, and rests no more until it has reached its full development.

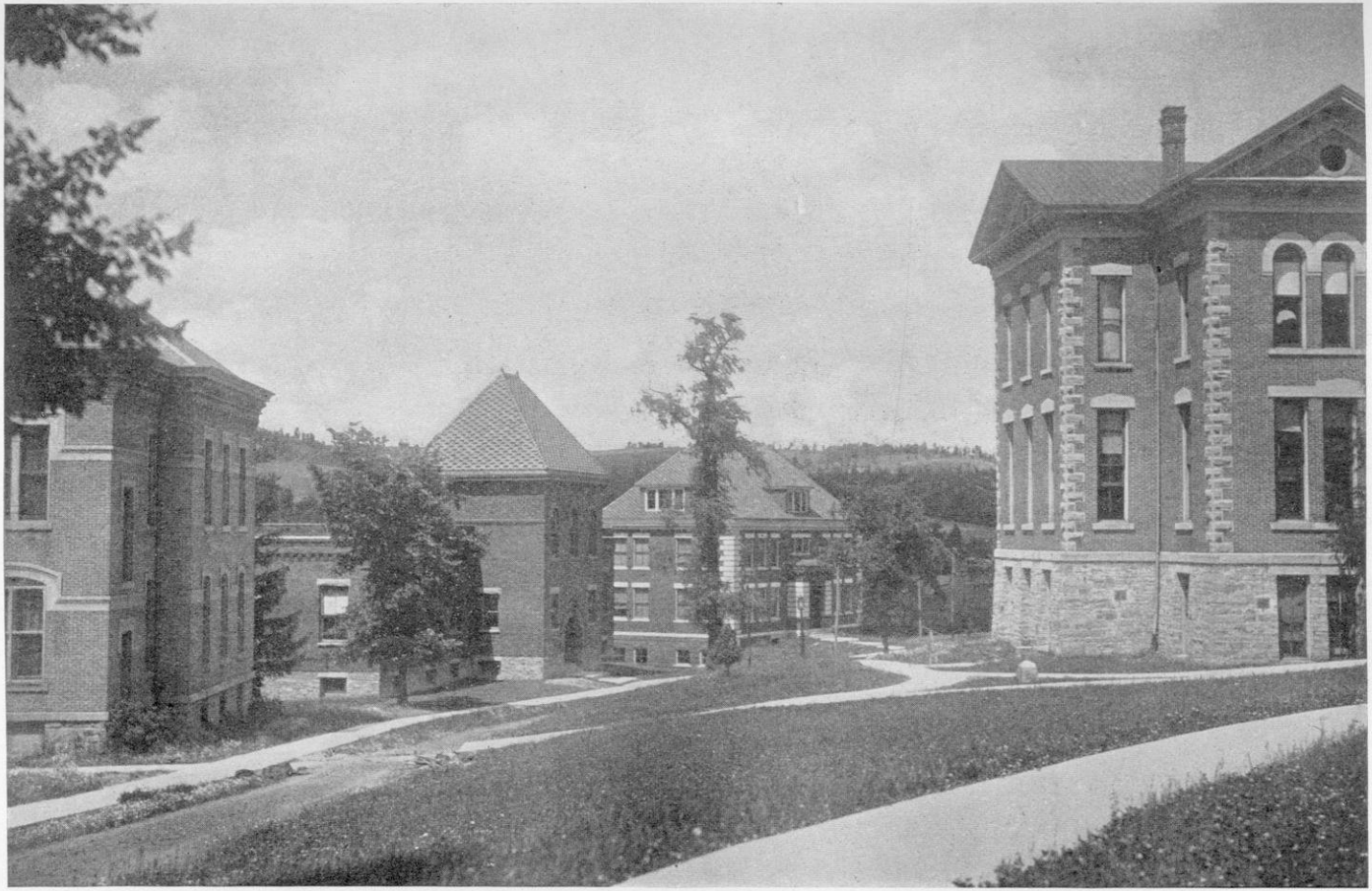
Education in Clay

CHARLES F. BINNS

UNTIL a very few years ago two doors and two only were open to the aspiring clay-worker. He must either enter a factory and take his place at the work-bench, or he must plunge into an individual enterprise and grope his way to knowledge. The former course usually resulted in a degree of mechanical skill, limited to one style of production and backed by no theoretical knowledge; the latter involved long and tedious experimentation and almost certain discouragement. At the present moment another course is possible. There are schools of clay-working open, and within their walls both the narrow specialism and the uncertain groping may be avoided.

The movement in education was for centuries confined to the humanities. Schools and colleges existed only for the study of literature, mathematics and pure science, while schools of art were concerned with painting and sculpture. Handicraft and design were divorced, technical instruction was unknown.

From this unsatisfactory state of things the world has been gradually awakening. One apostle after another has preached



College Buildings, Alfred University
Alfred, N. Y.

A Lesson in Glaze-making

the doctrine of handicraft. The apprentice system, killed by machine production, has its lineal successors in guilds and institutes, while schools for the study of applied science and industrial art have been founded in every land.

The most recent field to be invaded by the educational spirit is that of clay. Long neglected, or handed over to the empiric and the hack decorator, pottery has begun to claim its rightful place among the arts, and an advance is noticeable all along the line. Certain important reasons present themselves why the realm of ceramics should be dealt with as demanding serious study and special knowledge. From a technical view point the ceramic industries cover about one-third of the range of manufacturing chemistry, dividing it with metallurgy and general chemistry. In this classification the term ceramics is made to cover all the manufacturing operations which concern themselves with combinations produced by fire, pottery, glass and cement. The problems in each case, if not exactly similar, are distinctly analogous.

Again, the clay resources of the country are unlimited, and the timber supply is growing small. The utilization of clay for building purposes is becoming more and more important. In the third place the problems presented by pottery are special and intricate. Even the burning of a simple piece of clay involves chemical reactions of a complicated nature, and as these operations are usually conducted upon a large scale, the money risk is very high. For these reasons, then, an education in ceramics is desirable.

From the standpoint of craftsmanship such an education is even more important. The art of producing beautiful pottery is so closely interwoven with the laws of chemical combination that no one can hope to be a successful clay-worker who has no knowledge of scientific procedure.

Several schools of clay-working have recently been established in the United States, but in only one of these, the New York State School at Alfred, has special attention been given to the development of artistic pottery.

In the spring of 1900 the State Legislature enacted that there should be a school of clay-working and ceramics at Alfred in Allegany county, and appropriated a sum of money for the carrying out

of the work. Alfred University, an old established college, was given charge of the scheme, and a piece of ground adjoining the campus was selected as the site of the school.

The building designed as the home of the school was built of red brick with gray stone facings, and was roofed with brown tile. Both brick and tile are local products made from a fine shale which is found in abundance close by.

Alfred is supplied with natural gas, and the power was designed accordingly. The machinery was adapted for the production of any class of clay ware and kilns were built in which any desired temperature could be reached.

A threefold purpose was set before the school by the management.

1. To serve as an experiment station and assist in developing the resources of the State in clays and shales.
2. To stimulate the production of fine pottery and porcelain.
3. To educate students in every branch of clay-working.

The first object is distinctly utilitarian. The purpose of the owner of a claybed is, mainly, to turn the largest possible amount of his material into money. The last named object is utilitarian in part, for skilled men are needed in every branch of factory work, and they must therefore be instructed in factory methods. The second object is utilitarian only in a subsidiary way. Money making can never be the prime purpose in producing fine wares. The craftsman must live, but his craft is the first thing.

The school offers several courses. A full course of four years in technology. A course of two years in practical clay-working and a course of two years in applied art. The last named will be the most interesting to the readers of The Craftsman, and, therefore, the major part of this account will be concerned with it.

The school was opened in the spring of 1901, and a number of students set themselves with enthusiasm to the work at hand. It was necessary that some idea of form should be presented to them; many had scarcely seen a piece of decorative pottery, and certainly had no conception of making any such thing. A number of forms in plaster were therefore prepared and molds made. This had a double purpose. Molding, however objectionable artistically, is

a fact and must be recognized, and, by means of molding, primary students could learn to manipulate clay and study applied design before they had acquired the ability to create. This method of procedure had the effect of enlarging the horizon of the students and setting before them the possibilities of their chosen art.

Every student in art was set to study elementary and applied design with such simple drawing exercises as seemed necessary in each case. A course in simple chemistry was also deemed advisable, for intelligent design depends largely upon a knowledge of the materials used. Then it was felt to be possible that some student might be placed in a position where there would be no chemist to whom to turn for colors and glazes, so that for one to be able to make one's own combinations was a distinct point of advantage.

Building upon this foundation of pure science and art, the Director and his assistants have been able to develop a strong feeling for the good and true, both technically and artistically.

After some preliminary work in the composition of bodies and glazes, certain mixes were decided upon. In order to simplify the means it was determined that one temperature of firing should be used in the decorative pottery. Both body and glaze were fitted to this and the results were immediate. One and the same burning would give forth pieces in both first and second stage and the interest grew rapidly. The darker glazes not being found in harmony with a white clay, the body was stained brown, with distinct advantage.

When some knowledge of composition of materials, form and design had been acquired, creative work was begun. Every means was allowed. Some preferred to wrestle with the willful wheel, some sought the simpler and less exciting path of building. Some devoted themselves to tile, designing broad silhouette ornamentation and inlaying clays of different colors; some sought to control the effects of fire upon flowing glaze.

The interests of pottery are so absorbing and the work so varied that it is always difficult to confine the operations of workers within the lines of educational procedure. It is probably this trouble which has led to the extreme specialization of the factory, and in studio work the solution is found in the craftsman doing that for

which he is inspired at the moment. In a school, however, there is a serious responsibility resting upon the faculty. A student is there to learn and his time is very limited. He must not be allowed to fly off at a tangent when a new idea is presented, nor must he be kept so long at one operation as to grow cramped in hand or brain. A study, while it is in hand, must be faithfully pursued with the special purpose of practice and information, and a sufficient number of subjects should be considered to afford a comprehensive view of the art.

The work of teaching at Alfred is largely individual. Regular classes are held in which the principles of calculation and composition are set forth. Lectures are given upon the methods employed in the production of every class of wares from common brick to porcelain, and these are succeeded by lectures upon the history of the ceramic art as practiced all over the world.

It must be recognized by every thoughtful person that the work of the past is highly suggestive and inspirational. Many features of clay-working have fallen into neglect, because they did not meet the demands of the modern market. They are capable, however, of being developed by skilled workers, and a number of them will yet be resuscitated.

As an illustration of this, attention may be called to the revival of Delft blue, which took place about six years ago. The demand which then arose overflowed the legitimate lines of pottery and extended to stationery and even enameled wood. This error was, no doubt, due to the fact that to the manufacturer all blues were alike. The real Delft blue owes its peculiar and delightful tone to a combination with the tin glaze, a combination resulting from the blue being laid upon the unburned glaze while dust-dry. This method is far too costly, however, for the twentieth century potter, and blue can be painted on almost any glaze; give it the name "Delft" and it will sell.

Education will change all this. The student who has attended lectures on history will know how Delft ware was made, and will understand the necessary conditions. He will, moreover, appreciate the subtle delicacy of tone which makes the Delft blue so restful and will grudge no pains to produce a like result.

Alfred Pottery
Built and wheel-made

Vase by F. E. Walrath

Although at present there is no important ceramic museum at Alfred, the private collection of the Director is at the disposal of the students, and in the University Museum there are numerous examples of historic American pottery. A distinctive collection of the pottery of the world is contemplated at the State School, and the idea will be carried out as soon as the necessary funds are available. In the meantime the students are encouraged to study some special field of ceramic industry. An example of ancient work being selected, the attempt is made to duplicate this in body, glaze and color. There is no intention of copying, but the work is undertaken for its educational value. As an illustration here it may safely be said that the work of the late Theodore Deck of Paris and Sèvres would never have been undertaken had the ancient Persian faïence had no existence.

The New York State School is equipped with a well organized department of art, under the charge of Miss Adelaide M. Blanchard of Boston. By means of this department it is possible to receive students who know nothing of art and to teach them to produce creditable pottery. This does not mean that there is any division between art and technical knowledge, but that the principles of draughtsmanship and design are used as the necessary foundation for the craft. The separation into departments is merely a question of manipulation and convenience. The technical laboratory, where clays and glazes are weighed up, mixed and ground, must be planned differently from the modeling room, though the same student may prepare his clay in the one department and use it in the other.

The purpose for which a clay is to be used governs its composition. A modeling clay may be as plastic as wax. It need not be dried and is not intended for burning. A pottery clay, while not devoid of plasticity, must be open enough to dry without twisting and will therefore burn without cracking. All these points are duly demonstrated to the students, who are thus led to intelligent work.

It is a revelation to the novice that his clay in burning will act in accordance with his treatment of it. At the drawing of the kiln, many a woe-begone face is seen over warped and fire-cracked

pieces. Experience is a hard teacher and no amount of instruction, however careful, will entirely obviate the necessity for breaking out one's own path. Clay is very docile, but there are times when, being tortured beyond endurance, it turns upon its tormentor. A vase may be built up, apparently in a perfect manner, the surface may be finished with the most dexterous skill, but if, though hidden by decoration, there lurk structural errors, the fire will reveal them.

The decoration of the clay forms a feature of work at Alfred. The primitive methods of incising, embossing and inlaying are followed, simple work leading up to more intricate. In the two first named processes little technical knowledge is necessary except to see that the clay is just as dry as it should be and no drier, but the third, that of inlaying, is somewhat complicated. The execution is not difficult. Clay is dug out in a pattern and clay of another color is pressed in. It sounds quite easy! But will the clay stay in when it is pressed? Usually it will not, for there are no two clays with precisely the same shrinkage, and, moreover, the same shrinkage in drying is not, necessarily, the same shrinkage in burning. A clay may be adjusted to dry perfectly with its companion clay and in the fire they may part company. For such work as this the students are not given ready-prepared clays. They are told upon what lines to proceed and set to work to make their own trials. The Director's office is a busy scene after a firing. A number of students, each with an armful of experiments, are waiting to discuss results. One by one they are taken in hand. Note books are produced, the mixtures examined and compared with the results and advice is given for the next step. The examination of trials is an important matter and often takes a considerable amount of time. The microscope is frequently brought into requisition, and specimen pieces of foreign wares are used for comparison. Thus each student is encouraged on lines of original research, sometimes elementary, but always tending to knowledge.

The beauties of glaze have received close attention at Alfred. The tender texture of the dull-surface glazes called "matt" has been brought to great perfection. It is not enough, in the opinion of the Director, to simply deaden the gloss. The sand blast will

do that, but there must be developed a special quality sometimes called "silky," sometimes "kid glove," but which may more aptly be compared to the texture of an egg shell—patricularly to the shell of a duck egg. This is caused by a special chemical condition in the glaze, and students being started on the right lines, are encouraged to work for it.

A quite recent development is the production of a crystalline glaze. This has been tried to some extent in Europe, but is new in this country. Special chemical combinations underlie all such effects, and a full understanding of these is necessary, as well as a grasp of the physical conditions with which they are associated.

In the delicate adjustment of glaze to body mixture, and both to the proper heat, much patient work has to be done. The results so far have been most encouraging, and a deep impression is certain to be made upon the clay work of the country.

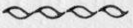
The kilns at Alfred are burned with gas. Firing by coal as an educational exercise is also provided for, so that every condition of practice may be met. The kilns are of the open type, and seggers are used to contain the ware. These are made at the school. In fact, everything that can be made of clay is produced rather than bought, the consequence being both a saving in expense and a practical exercise.

For the most part the students place and fire their own kilns. Lady students cannot very well do this, but there is always help to be had when needed.

Drawing the kiln is a notable time. A subdued excitement is in the air. Those who have pieces being fired are early at the kiln-house, as the assistants, protected by leather mittens, take down the fire bricks which close the mouth of the oven. Heat is no obstacle now. Nobody would think of waiting until the kiln were cold or even cool. The doors of the house are shut to prevent sudden draft, and segger after segger is removed and set down for inspection. Only those who have experienced it can understand the thrill of delight as some fine piece is brought forth. The work of one's hands and brain is seen, strong and imperishable. The humble clay has been transformed by fire and stands forth, a complete expression of the master-mind.

Education in Clay

With what toil has it been prepared? Under what stress of flame has it been perfected? It is considerations such as these that elevate the art of the potter, primeval though it be, to the position it holds as the first handicraft of the human race.



IF A GREAT POET LIKE WILLIAM MORRIS CAN FIND A MORE SECURE SATISFACTION IN HIS WORKSHOP THAN HIS LIBRARY, IF A LARGE-MINDED LAWYER LIKE COBDEN-SANDERSON CAN FIND A FULLER EXERCISE OF HIS FACULTIES IN BOOK-BINDING THAN IN LAW-PRACTICE, THERE MUST BE SOME EXCEPTIONAL RESOURCES IN WORK AS YET QUITE UNSUSPECTED BY THE MAJORITY OF MANKIND.

OSCAR LOVELL TRIGGS

Japanese Gardens

TO the western mind, the word garden suggests beds of geometric forms with lines of bloom or regular rows of foliage, approached by clean cut paths. So dissimilar in contrast are the gardens of Japan, so unostentatious and quiet, that to appreciate their subtle charm we must free our minds from the show and bustle of our busy life, and counting time as of no account, try to infuse into our thought some of the hurryless mood that dwells in these shady spots of restfulness.

It was late in the fourteenth century that Yoshimitsu, styled the "Cosmo de' Medici of Japan," bringing to his capital at Kioto all the refinements of art and literature, as they existed in China under the Ming dynasty, laid out his palace grounds at Kin Kakuji after the manner of the gardens at Hangchow.

It was this Nature-study required in landscape gardening, which first caused the working out of backgrounds in Japanese art, and gave prominence to landscape painting. Kin Kakuji, inspiring nature-study, has served as the model upon which all gardens, large and small, are built; for be it the retreat of a Daimio, acres in extent, or the humble courtyard garden, four feet square, of a mountain peasant, there is ever an attempt to reproduce, in proportionate size, a suggested piece of landscape. Formless they seem at first glance, but by study of the well-defined rules that govern their construction, they take on new meanings, and reveal a complex irregularity, governed not by chance, but by the art which conceals itself. Even though the space be limited, there is no sameness of level: valleys rise to hills where a little grove of pine or bamboo shelters a shrine or image of Buddha, seated in meditation. Here, an evergreen, shorn of its top, throws its whole vitality into a side branch trimmed to form a crescent arbor; there, some scraggy pines, clinging desperately to a rocky point, throw their branches trained in distorted angles, over the brink of a tinkling cascade.

Invariably the pond of goldfish is the central feature about which all else is grouped. Its irregular banks, sometimes cut after the outlines of some favorite lake, are lined with marsh grass and rushes, and joined here and there by rustic bridges of stone and bamboo, to miniature islands. Irregular stones, preferably tall and

flat, stand on end at points of vantage; on their faces, chiseled in picturesque ideographs, some classic verse. Through this maze of shade, flat stones, sunken a step apart, zizgag in picturesque paths. By a shade house, thatched a foot thick with bamboo, stands a water basin, curiously hewn from a single rock, an heirloom for centuries.

At every turn, mossed with age and covered with lichen, stand stone lanterns; one with a pagoda shaped top, supported on a column and pedestal; another with curving legs bowed wide apart, topped by a rounded stone, hollowed out, and covered by a broad curving disc. On these two themes are modeled infinite variations, curiously cut in lines of grace. They ornament far more by day than illuminate by night, for a candle behind a paper pane, pasted over the stone openings, sheds but soft glow-worm light at night.

For a consideration, a Japanese might part with nearly anything, but seldom with his stone lanterns; given to him by the past, he stands true to his stewardship for the future. Where it can be afforded, bronze is used for large lanterns, as well as for other garden ornaments. In Count Okuma's garden, near Tokio, two priceless storks, life size, of bronze, marvels of moulding, stand in the shoals of the lake, as if looking for fish. In one of Kioto's temple gardens a finely chiseled dragon, mounted on a huge lotus, both of bronze, spurts clear water from its mouth.

A great garden will have in it a cycle of bloom, beginning with the early plum blossom, followed by the glory of the year, the pink double cherry, large as our hundred leaf rose: a burst of ravishing bloom, but not ripening to fruit. The wisteria follows, growing to a perfection unknown elsewhere, its heads of purple fringe, three and four feet long, hanging from a bamboo trellis over the water, their beauty doubled by reflection. The iris succeeds this, and, then, in mid-summer, the pond grows pink with lotus flowers. With cooler days the leaves, strong and sappy, from long summer rains, turn at the first touch of frost to marvels of rich color. It is then too that the chrysanthemum is in its prime in the land of its highest perfection.

Although this ends the carnival of bloom, Nature, studied so closely and lovingly, holds later beauties still. The pine tree cov-

ered with snow, to a Japanese is a bond between Autumn and Spring, and its masses of sharply contrasted black and white are an oft-repeated motive in decoration. One spot in the garden is set apart as the choicest for viewing this flower, another for that. "Moon Viewing" parties, or for those enjoying lotus or cherry bloom, are frequent in season, and the guests, sitting in appreciative silence, feel that they are having of their host's best.

Namikawa, Japan's greatest artist in *cloisonné,* has in the heart of Kioto, a garden, small, but of rare beauty, famed especially for its fish. But name goldfish to a Japanese and he shows you a variation of fantasies; from the wee ones that children carry home in small globes for festivals, to the huge, gold-sided carp. There are gold-fish slashed with silver and dotted with black; "telescopes" whose eyes, many sizes too large, protrude like great buttons before them; fat ones, as broad as long, whose wobbling movements seem a parody on swimming; bright gold ones, with red glaring hoods like a turkey's comb; fan tails, so divided and subdivided and spread abroad, that the body part seems insignificant beside it. Namikawa's hand clapping is the signal for all his finny gourmands to swim to his lakeside balcony to be gorged with biscuit. Food and honors, however, are here shared by a flock of Mandarin ducks, small and brilliantly iridescent. The master says that his garden and his pets furnish the forms and color schemes for his master-pieces in *cloisonné,* whose wonders of copper wire and enamels are the despair of imitators.

Perhaps no one garden has all these characteristics, but each has some attractive features grouped about its central lakelet. What the large one is the small one hints at, and this scale of littleness is carried to such puzzling exactness, that one is baffled by it and feels that it is normal, and one's self too large.

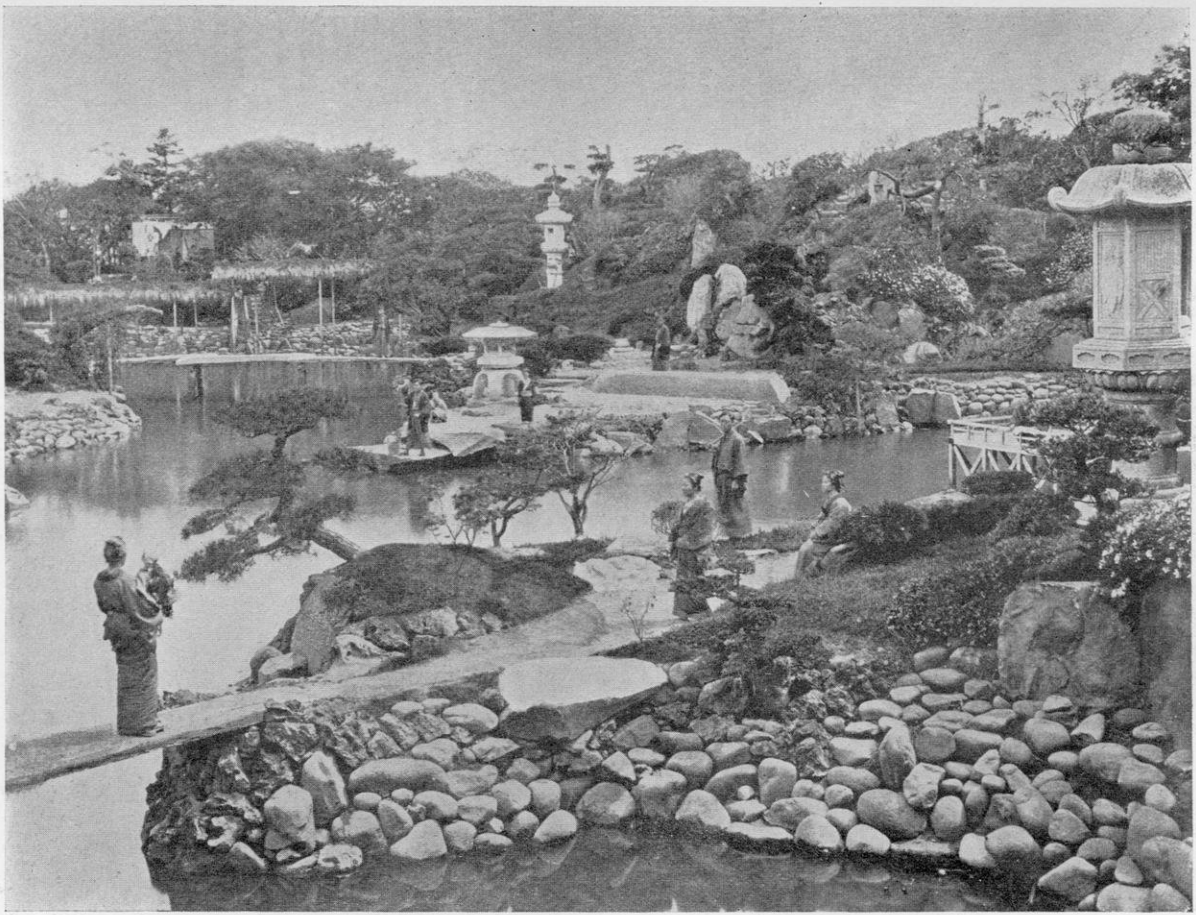
By pruning the roots and confining them, the tree is kept to any size. Pine, oak, cherry, maple,—moss grown, gnarled veterans of the same forest—they stand twelve to thirty inches high, although fifty to two hundred years old. The tree's size settled, lilliputian hills, islands, houses and bridges, group themselves naturally about. Whatever the space, and many gardens are but two or three feet square, there is never a bed, as we call it, of anything, but

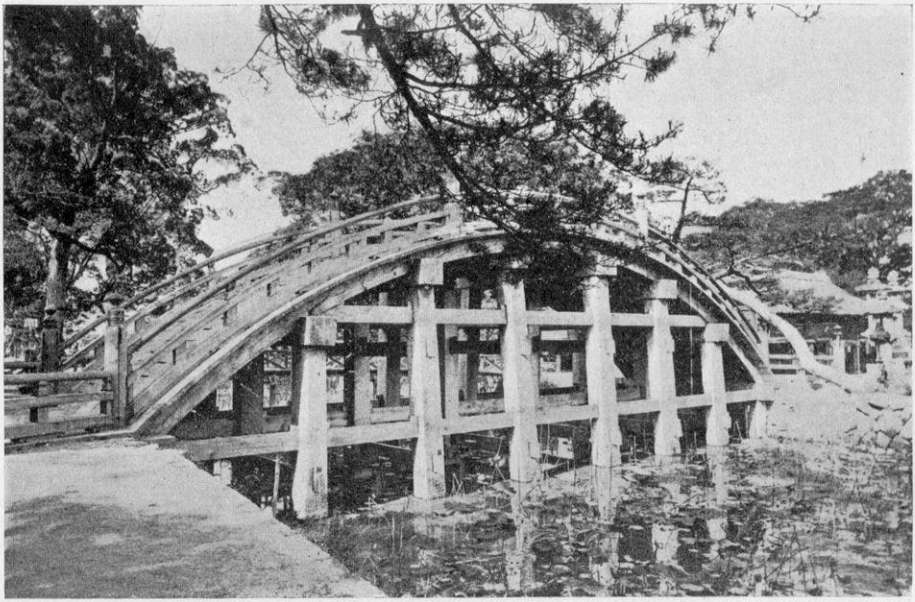
ever a suggested whole of some larger part of Nature, restful in its completeness.

To us of the western world do they not point a truth? Tread the streets of Tokio, enter the crowded houses and see the tiny court-yard gardens behind them! We might call them "back yards," and make them more hopeless with ash-barrels and tin cans. To the Japanese his close-cut landscape suggests all the broader stretch outside the town, or the picturesque scene of some bright holiday. Will not some of our small spots, neglected, because so small, respond kindly even to our cruder handling?

THERE ARE TWO BOOKS, FROM WHICH I COLLECT MY DIVINITY; BESIDE THAT WRITTEN ONE OF GOD, ANOTHER OF HIS SERVANT NATURE, THAT UNIVERSAL AND PUBLICK MANUSCRIPT, THAT LIES EXPANS'D UNTO THE EYES OF ALL: THOSE THAT NEVER SAW HIM IN THE ONE, HAVE DISCOVERED HIM IN THE OTHER.

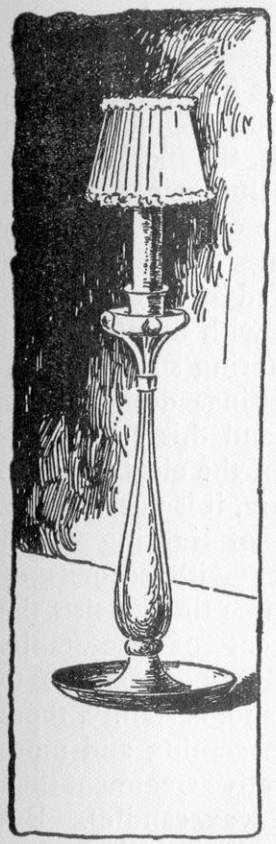
SIR THOMAS BROWNE





Decorative Lighting

C. SANDFORD FREEMAN



AS it can be taken as an axiom that of all illuminants electricity affords the greatest scope for decorative treatment, the following observations are made with a view of meeting a difficulty constantly presenting itself to those who are adopting the Electric Light: namely, how to arrange the lamps so as to produce the most artistic effect.

The exposure to the naked eye of the concentrated light from an Electric Lamp produces, by the involuntary contraction of the pupil, a sensation of pain which renders reading difficult, and which, by continuance, is liable to result in serious damage to the sight. In order to obtain a soft and comfortable effect, the rays from an incandescent lamp must be projected on to a large area, such as the ceiling or walls of a room, which act as a reflector and diffuse the light in such a way that the pupil may expand and reading may be done with ease.

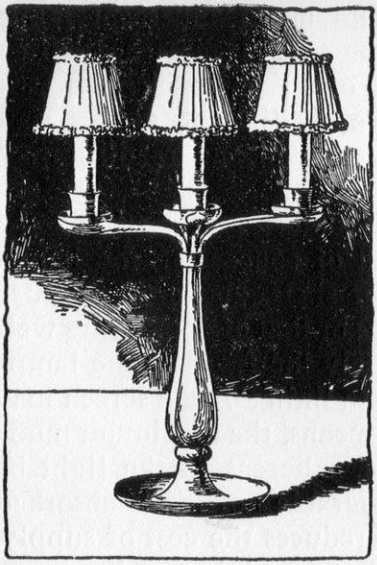
To achieve this object two methods are possible: either that of concealing the lamps behind a cornice, or shelf, above the picture rail, and thereby illuminating the ceiling; or that of employing wall sconces with silk shades that screen merely the front of the lamp; the back being left open, so that the white lining of the screen may reflect the light on to the walls; by this means, the maximum number of rays from the lamp are utilized, whereas, if the light be entirely surrounded by a shade, a considerable portion is absorbed in the silk. This treatment materially reduces the cost of supply, as it has been found by experiment that an eight candle-power lamp, partially shaded, produces the same amount of effective light as a sixteen candle-power lamp entirely shaded, and at half the cost of consumption.

These general principles of lighting being established, the

question of the ornamental fittings required for the various rooms must now be considered.

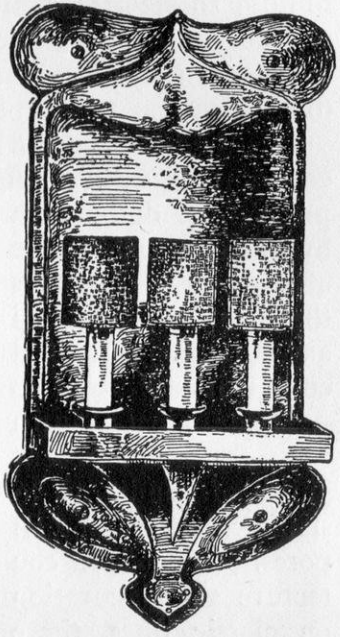
In most notable town and country houses the fittings have been included in the architect's designs, and therefore being quite in character with the decorative style of the rooms, the most satisfactory course is to adapt them to the modern illuminant. But in doing this, there must be no deviation from the original intention of the artist, as regards the contour of the fittings. Nothing looks more meaningless than a fine old chandelier fitted by an electrician with electric lamps set actually in the sockets, with no attempt to maintain the idea of a candle, except in a guttering state, burned down into the bottom of the candlestick. Fittings designed for candles must have that intention maintained, and this can be accomplished in a way that baffles the detection of the electric light.

In a dining room, the table being the feature, it is necessary to employ a method of lighting which combines efficiency with softness of tone, and, at the same time, assists the artistic arrangement of the table. Most hostesses rely upon candles to obtain this result, and, certainly, there is no light more becoming and more adaptable to decorative treatment than the old-fashioned wax candles. But is it not possible, in the twentieth century to retain the charm, without the many disadvantages of the old system? Many experiments in this direction have been made, in recent years, but the method which has met with general approval is that of adapting one's own candlesticks by concealing the electric wires and attaching them without injury to the table or cloth. The mechanism is quite simple and includes an arrangement by which the wires can be easily detached, when the candlesticks require cleaning.



Various methods of lighting from the ceiling have been tried,

but with only partial success. In the case of a shaded pendant, in order to distribute the light over the entire table, it is necessary to employ a large, cumbersome fitting, hung low down over the table, so as to conceal the electric lamps; such a light, however, has frequently to be increased by candlesticks, at a dinner party, so that the ends of the table may be efficiently lighted. When artificial light is not required, the effect in a room of such a pendant is decidedly objectionable, and has a tendency to dwarf its height.



Further, any attempt to light a dining table by lamps fixed close to the ceiling, must be dismissed as impossible; since the shadows thrown are most unbecoming, and the charm of a light concentrated on the table is lost.

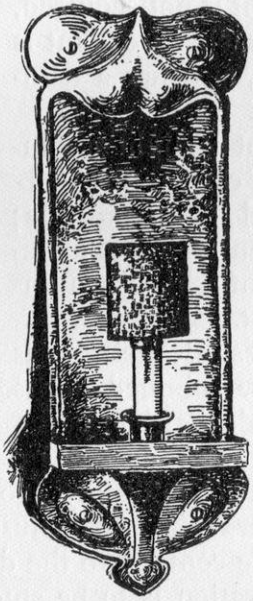
In addition to the candlesticks, it is advisable to have a few subdued lights around the room, on a sideboard, or carving table, so that these may be turned on when the guests enter; but great care must be taken not to detract from the central light.

The lighting of a drawing room must be more generally distributed, and in complete contrast to the dining room. Where no particular style of decoration is to be studied, the fittings should be of light and elegant design, so that the electric lamps may be concealed behind silk screens of a soft tone (cream or pale pink preferred), in order to harmonize with the delicate surroundings. Wall brackets or candle sconces will be found most appropriate, and there are many good models from which a selection can be made. Several portable reading lamps are generally required, and these should have tilting shades, that the light may be screened from the eyes; one or two floor standards, judiciously placed, will, if fitted with large open shades, give a very charming effect and form a substitute for the sconces when less light is required.

If the drawing room be decorated in French style, the sconces

must be of characteristic period supporting imitation candles. It may be remarked here that modernized French designs arranged to hold an electric lamp pointing downwards, should be carefully avoided, as the candle form of light is an integral part of designs in the French style. Consistency in matters of this kind is essential to good taste.

In bed-rooms, the question of decorative effect is not to be considered; utility being of first importance. The solution of the problem of dressing ta ble lighting is obtained by fixing on either side of the mirror an adjust- able arm, with a means of raising or lowering the lamp, so that the li ght may be thrown in any direction required and all glare be avoid- ed. It is preferable to a top light.

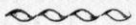


The subject of fittin gs brings us into touch with the many recent attempts on the part of guilds of handicraft to produce "original" de- signs which can be util ized for lighting pur- poses. In modern cou ntry houses, the archi- tecture and decoration of which are not based on classic lines, there is, if electric light be adopted, opportunity for the introduction of a free treatment of de sign, the form of which is not restricted to the requirements of oil and gas. But, unfortunate ly, many designers of metal fittings, in their endeavor to avoid the early Victorian monstrosities, lose all sense of beauty, and produce distorted forms which are foisted on the indiscriminating public, under the term "quaint."

Designs of lighting-fittings should be the embodiment of beauty of outline and simplicity of detail, rather than the exhibition of the individuality of an eccentric designer. It is gratifying to observe the efforts which are being made to supersede the gaudy and massive machine-made productions of the wholesale factories by designs, which, in their execution, bear the hammer marks of the craftsman. But there is a tendency to go to the extreme in this direction by accentuating craftsmanship at the expense of the de-

signer, which extreme is often the production of a mind seemingly straining after individuality, without due regard to proportion and to beauty of form.

The charm of hand-beaten work cannot atone for its eccentricity, and it is to be hoped that designers and craftsmen will expend their energy in producing what will appeal to people of good taste, and, thereby, find a permanent place among the beautiful accessories of our country houses.



IT MAY BE PROVED, WITH MUCH CERTAINTY THAT GOD INTENDS NO MAN TO LIVE IN THIS WORLD WITHOUT WORKING; BUT IT SEEMS NO LESS EVIDENT THAT HE INTENDS EVERY MAN TO BE HAPPY IN HIS WORK. IT WAS WRITTEN: "IN THE SWEAT OF THY BROW," BUT IT WAS NEVER WRITTEN: "IN THE BREAKING OF THY HEART."

JOHN RUSKIN

Jewelry and Enamels

HENRY W. BELKNAP

IN designs for jewels there has been, for many years, an apparent monotony of conception and a following of beaten paths, which have produced an almost complete lack of artistic feeling; while mere concrete value, by the use of stones of perfect form or color from the lapidary's point of view, has seemed to be the end chiefly sought.

To René Lalique, perhaps the greatest goldsmith the world has ever known, and to his followers, we are indebted for a school of workers, who, while often willing to use a gem of the finest quality, commercially speaking, if, by so doing, the design they have conceived can be better carried out, are yet willing to employ an irregular or off-color stone, not even necessarily a precious one, if only it lend itself to the attainment of an artistic result.

Probably in no other use has the so-called Art Nouveau lent itself with happier effect than to this branch of work.

In the jewels of Lalique one notes a most complete mastery of technique, and a daring in the conception of his designs, which is little short of marvellous. But there is, withal, a tendency to realism in his treatment, which, however cunningly it may be employed, seems to lack the dignity a more conventional and reserved style would attain.

In this country, we have, at present, a considerable number of individual craftsmen at work upon jewels, and the smaller articles in metal which seem to be fittingly included in a review of this subject.

One of the pioneers was Colonna, who for some years has been busily designing in Paris, at the Maison Bing, and who has produced many charming pieces; but it is more particularly with those actually working here, and executing their designs with their own hands that we are now concerned.

Illustrations are given of a number of examples of the work of Brainerd B. Thresher of Dayton, Ohio. Mr. Thresher has had opportunities which do not come to many craftsmen, in the way of travel in Japan, Europe, and other countries. He has profited greatly by this and by the fact that he has been impelled to work out his ideas by mere love of the craft, and not with thought of remuneration.

In the spoon illustrated, his fancy has been taken by the motive of a tree, much conventionalized, within whose roots are entangled several little boulders of red opal-matrix.

The tree motive is again apparent in the silver clock, and here the fruit is cunningly suggested by the use of baroque pearls. These pearls, of which Mr. Thresher makes much use, are often those taken from the waters of the Miami River, which flows through Dayton.

The brooches and pendants shown, while evidently all the work of the same hand, reveal, in each case, a feeling for the form of the stone selected, in the lines of the mounting, which really seems to hold the stone, and not to be merely an ornament applied without regard to the practical purpose which it is meant to serve.

One of the most active in the interests of the gild of craft workers at Deerfield, Mass., Mrs. M. Y. Wynne, stands high in the ranks of our artist jewelers, and it is with regret that we find it impossible to illustrate some of her charming creations.

Mrs. F. H. Koehler of Chicago, is another most successful craftswoman in the way of jewels, but, as inthe case of Mrs. Wynne, we are unable to obtain photographs of her work.

It is by the use of some of the stones of small intrinsic value, but fine color, that many beautiful effects are obtained, and these especially lend themselves to rather archaic and rude settings suggestive often of Indian or other barbaric workers. Note the very charming belt slide by Miss Mary Peckham, which is of dull silver chased delicately, though freely, and set with pebbles of Thompsonite, or fossil coral, in shades of pink and dull green; the slide of silver with Labradorite, always an interesting stone from its subtile play of color beneath the sober gray surface.

Enamel offers an almost limitless field to the artist, and likewise presents difficulties in execution warranted to test the enthusiasm and patience of the most eager.

Mr. Louis C. Tiffany has, for some years, been carrying on elaborate experiments in enamels and pastes applied, for the most part, to lamp bodies, small boxes, vases and the like. He has produced an astonishing range of color, surface and gradations of transparency and translucency, from the absolutely clear to the

completely opaque, and by applying his compositions to surfaces of repoussé copper, has attained most interesting results.

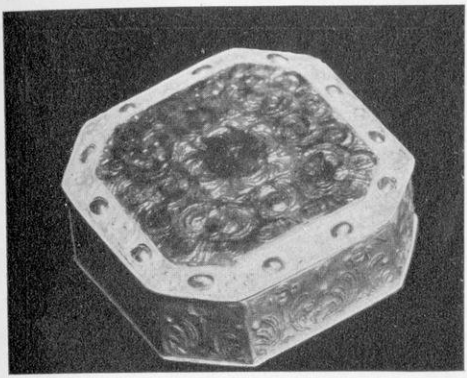
Quite different in effect is the same material, when handled by Miss Elizabeth Copeland of Bedford, Mass., whose box is here illustrated. The enamel, which is transparent, is chiefly blue and green in color, and is applied in a conventional design, over repoussé silver; a brilliancy and a luminous effect resulting, which are comparable only to the qualities of transparent stones.

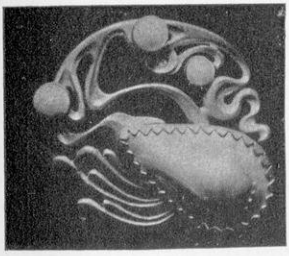
Miss Copeland's work shows great vigor and simplicity of treatment and a style quite her own.

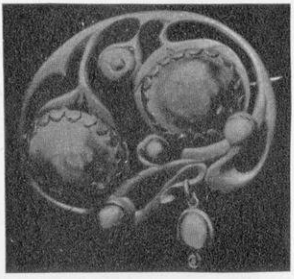
The difficulties of enamel work are such as to deter many from attempting it, but the field of the jeweler's craft is open to almost any one who possesses a knowledge of design and some handiness with simple tools. The work requires but small space for the shop, and should commend itself to the craftsman, as one of the more practical of the lesser arts.

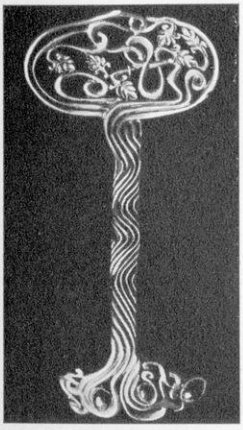
SMALL AND PURE AS A PEARL . . . .
FRAIL BUT A WORK DIVINE,
MADE SO FAIRILY WELL
WITH DELICATE SPIRE AND WHORL . . . .
A MIRACLE OF DESIGN.

ALFRED TENNYSON



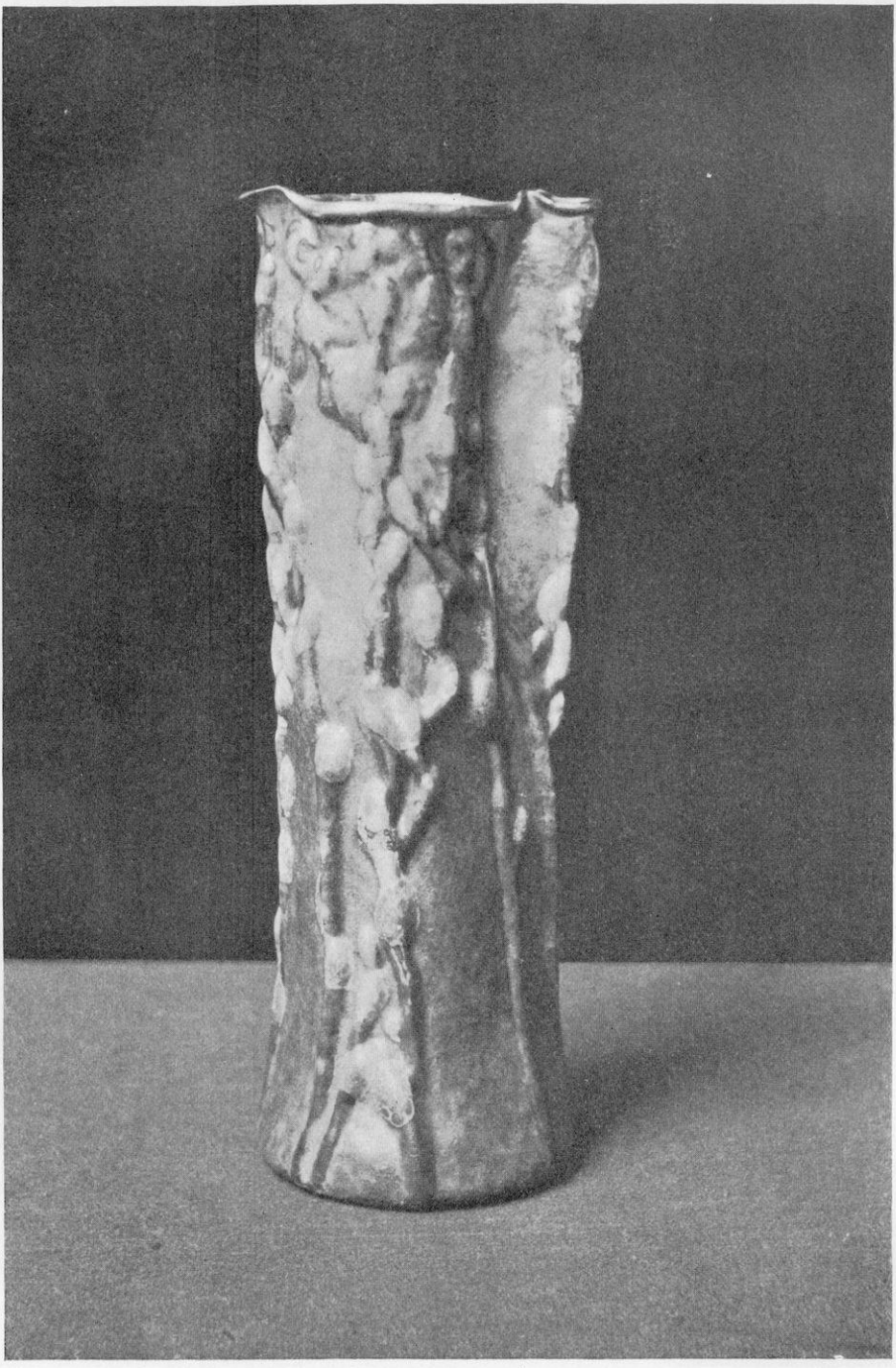






Examples of Modern Jewelry

By Brainerd B. Thresher, Miss Copeland and Miss Peckham



Enamel on Repoussé Copper

By Louis C. Tiffany

Craftsmanship *versus* Intrinsic Value

F. WALTER LAWRENCE

THE display of my work, in the Arts and Crafts Exhibitions recently held in Syracuse and Rochester, N. Y., may be divided under these heads: Baroque Pearls, Gold Modeling, Phoenician Glass Jewelry, Silverware and Objects for the cabinet; although in all the articles exhibited the metal work was a distinct feature.

Within the past few years, the value of regular pearls has increased so rapidly as to place them beyond the reach of the great majority. Therefore, to satisfy the demand of those who could not afford to purchase the regular gems, the dealers have procured from the fisheries malformed, or irregular specimens, or, as the French call them, baroque pearls. So the adoption of the baroque pearl has been the result of a peculiar condition of trade. It is a substitute, and, as a substitute, is used as the regular pearl in usual forms of jewelry. This seems to me to be all wrong and unfair to the baroque pearl, which, because of its possibilities of form and color, has an artistic value far beyond the regular gem. For this reason it should be considered as "the pearl without price," and valued for this priceless reason. The baroque pearl should never be used in conjunction with the regular or perfectly formed pearl, or regular forms of precious or semi-precious stones, unless because of its form and color, it be an integral part of the design.

In the olden days, when the goldsmith was not simply a merchant, he used the baroque pearl, not because it cost less, but because it meant more in the pieces which he wrought. In the Grüne Gewölbe of the Royal Palace, Dresden, there are wonderful examples of the use of the baroque pearl, in which the suggestive form created the design, or the tinting completed a color scheme.

In the Mermaid Ring exhibited, the baroque pearl suggested the design. The thought of the sea is carried out in the mounting by the swimming mermaid and by the dolphin supporting the pearl. In the Swan Brooch, the bodies of the swans are pearls, just as they were found; the design being carried out by modeling in green gold the heads, necks and wings; the whole being accentuated by the enameling of the background representing water, and the framing with pond-lilies and grasses.

In the *Collier,* the infinite variety of shades of the baroque pearls chords with the old rose finish of the gold scroll work, and the whole effect is brightened by very small brilliants and olivines. The baroque pearl Pendant, in the Butterfly Design, is used to complement the tints in the opal matrix wings.

The Kiss Ring and the Three Graces Brooch are exceptional specimens of the goldsmith's art. The former is an adaptation from a picture, "The Kiss," which had a conspicuous place in the Paris Salon. The figures in these pieces are first modeled in wax, and then cast by a secret process, after which they are chased to a delicate finish. The detail is so carefully wrought that, with a powerful magnifying glass, every feature is seen to be perfectly reproduced.

In the application of Cyprian or Phoenician glass fragments to modern forms of jewelry, silverware and objects for the cabinet, I was impressed, after thorough experiment, with three peculiar advantages: first, its practicability; second, its attractiveness and beauty; third, its evident uniqueness.

These fragments of glass are parts of bowls, vases, tear-bottles and cups, found in tombs, in the ancient city of Jerusalem, and brought to this country by Ayeez Kayat, probably the greatest authority on ancient glass in the world, certainly, in this country.

The ancient glass was originally clear, and either white, pink, green, violet, amber or blue. The beautiful iridescence which makes it so attractive, is due to the decomposition and disintegration of the glass, caused by the gases generated in the tombs from which the glass is exhumed.

The disintegration of the surface of the glass produces not only beautiful coloring, but frequently suggestions, which become, through a thoughtful framing, positive and distinct pictures. Fearing the possible accidents incident to goods in transit, I did not send to the Exhibitions all the pieces of glass which possessed picturesque characteristics; but particularly those which, because of their settings, were least liable to breakage.

The accompanying illustration of the Desert represents the most remarkable piece of the collection. This kind of glass is known to collectors as the Ruby, the rarest of all ancient glass.

This particular fragment is slightly concave. It was probably part of a bowl.

In the decomposition of the surface of this specimen, the disintegration has caused a brilliant, glowing light in the right hand corner of the glass, when it is held directly in line of vision. But if one turns the glass at angles, this light travels across the dome of the glass and disappears in the left hand lower corner. In a reverse position, the coloring is entirely changed, and the surface is suffused by a silvery light. With these suggestive features, it did not require much ingenuity to discover that, by a proper mounting, this fragment could be transformed into a real, almost living, picture of the sunrise and sunset, and even of the moonlight night on the Desert.

There are several other pieces in the collection which permitted relatively the same treatment; forming Nile scenes, jungles, etc. But the only specimens in the Syracuse and Rochester Exhibitions possessing significance apart from beauty, were the Egyptian Head ring, the Egyptian Head buckle, the Cleopatra scarf pin, the Sphinx brooch and the Egyptian boat. In these fragments, because of their peculiar conformation and colors, I found the *motifs* for the compositions; but, in the other articles, the fragments are simply incidental to the design. However, in every instance, the composition is cohesive; the mounting being absolutely Egyptian, and in the silver pieces, the designs are taken directly from illustrations of objects excavated in the very places where the glass was found.

In effect, the glass suggests the transparent enamel that has been employed by Lalique and other famous jewelers, during the past few years; but the glitter of its shimmering, changeable colors makes it far more beautiful than enamel, and admits of results impossible through the use of other material. And, apart from all that is superficial, it is an impressive thought that, because of the glass, each bit of jewelry, or silverware, or bronze exhibited, had absolutely required from three to four thousand years for its full completion, and that it is beyond the realm of speculation ever to find its exact counterpart.

In this age, when we are striving for individual expressions of

craftsmanship, an object which has intrinsic significance and beauty of form, and which precludes duplication, is sure to meet an appreciative reception, whatever its material composition. It is very encouraging to me to have had my antique glass jewelry, silverware, and bronze so kindly received at Syracuse and Rochester. I am persuaded that the influence of the Arts and Crafts movement in America is dissipating that old discouraging criticism of the layman: "It does not look its price," and that it is educating the public beyond the dollar mark.

THE EYE SURPASSES NATURE, INASMUCH AS THE WORKS OF NATURE ARE FINITE, WHILE THE THINGS WHICH CAN BE ACCOMPLISHED BY THE HANDIWORK, AT THE COMMAND OF THE EYE, ARE INFINITE.

LEONARDO DA VINCI

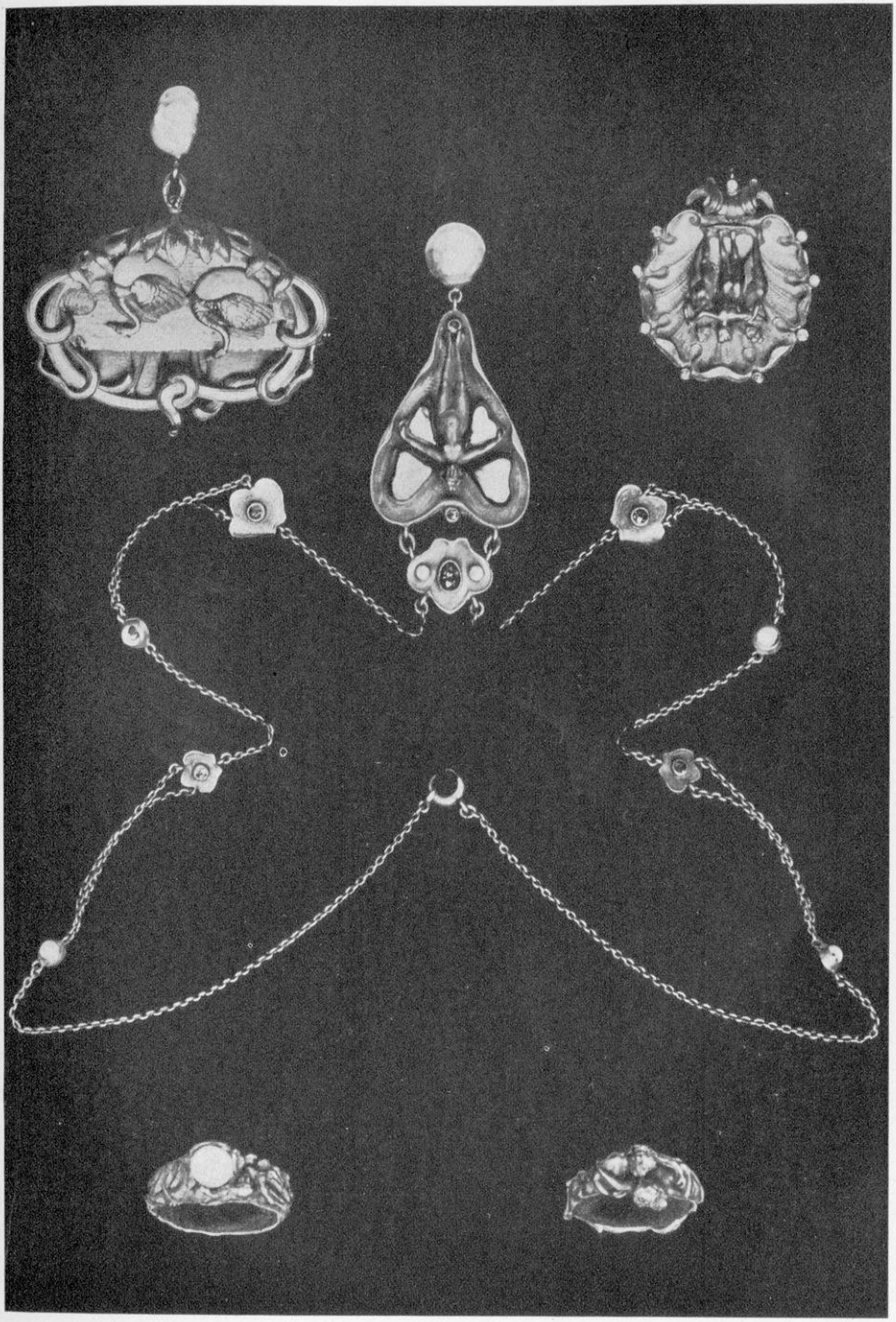


Figure-Work in Jewelry

F. Walter Lawrence

Ancient Phœnician Glass
in modern jewelry

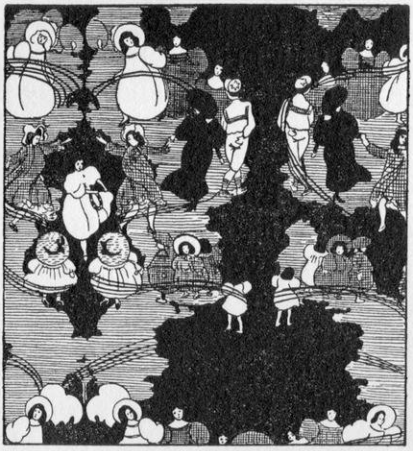
F. Walter Lawrence

French Art for French Children

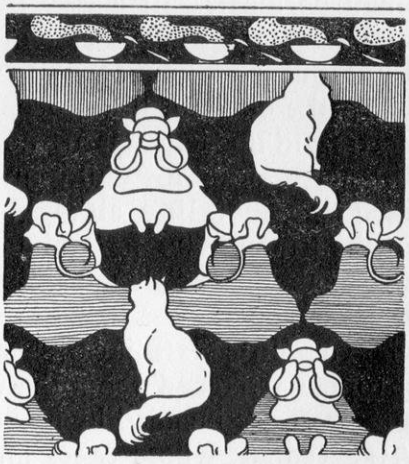
IRENE SARGENT

FROM an excellent foreign contemporary, "Art et Décoration," The Craftsman reproduces a number of designs for nursery wall-paper: the result of a prize competition recently held by the editors of the French magazine. These designs are nationally characteristic of the artists who produced them; yet, in several instances, they show the strong influence exerted in the France of to-day by English decorative art: especially by the composition, figure-drawing and coloring of Walter Crane and of Kate Greenaway. But every one of these delicate little *motifs* witnesses, as well, the eager interest and delight which adults in France, irrespective of class, take in all that pertains to childhood. In that country, indeed, the mature and the young are bound together by that strongest of all ties—community of interests—and this to a degree quite inexplicable to the American upon his first visit. Simple pleasures apparently never lose their keenness for the most world-weary strollers of the boulevards, with whom it is a current phrase and a not infrequent action "to dip themselves anew at Nature's source." The foreigner can interest himself profitably for hours by watching the Parisian families who, on pleasant summer days, resort to the public gardens, like the Luxembourg, there to pass the greater part of the working hours. If one follows such a group, say, from some quiet shop-keeping street of the Latin quarter, one sees mother and children emerge from some open court, making against "the common grayness" of wall and pavement a bright picture worthy of the brush of that favorite painter of a generation ago, Edouard Frère. Parent and children alike are laden with wraps, food-supplies and toys; the latter, for the most part, being miniature-boats, dolls and tin railway-trains, in which the mother takes an equal interest with her boys and girls, if one may judge from her bright glances and lively comments given in that charming way which colloquial French, among all the idioms of the world, makes possible. They take their way, eager with anticipated pleasure, to the beautiful gardens which were given in inalienable right by Marie de Médicis to the Parisian people. They are judges of the loveliness of the spot and they have in it all the pride of ownership. They differ radically

from a group of the corresponding class in America whom one meets, at the same season, going to spend a holiday in the unbeautiful, sordid, money-making grounds provided by private capital. In the Luxembourg, or any other typical Parisian garden, the members of our French family have before their eyes the beauty which educates the young and which soothes and satisfies the adult. Vistas, fountains, arrangements of turf and flower-beds, so harmonious as to suggest the canvas of some master colorist reproduced on a great scale,—all these elements combine into a whole affording a refined, sensuous pleasure to be compared only with that which is produced by the music of a well-trained orchestra. Amid these surroundings, our French children play the entire day; the mother watching that they neither endanger themselves nor encroach upon the rights of others: the latter provision being made in accordance with that praiseworthy characteristic so noticeable among the French, when they congregate in public places. And a word must be said of the supervision exercised by the French mother, as indicative of the strong bond which exists in France between the parent and the child. This is no union irksome to both individuals, as it often appears to be in America. It is pleasurable, because it is cemented by a sense of companionship. Something of the child: that is, his spontaneous power to enjoy, to free himself from care, and to enter at will a fairy world—something of this freshness remains in the heart of every French adult. This quality is made apparent to the foreigner as he travels in railway-coaches through the country, strolls in the streets, visits the flower markets, or, perchance, a provincial theatre, where "Beauty and the Beast," or one of its companion pieces, is playing. Landscape effects, animals, flowers, spectacular scenes, all have charms which those who enjoy them so keenly translate into glances, gestures and words natural and truthful,—



quite different from the forced and conventional expressions of pleasure which the Anglo-Saxons employ. As we have said, the children play through the long sunny day: not without the disputes, outbursts and quick revulsions of feeling and will, that have been the property of the Gallic nature ever since Julius Caesar's time; but, as a whole, so that educators, mothers and children, on this side of the Atlantic, might learn of them. That they are open to impressions of beauty more than those of corresponding years in all other countries save perhaps Italy, will be readily conceded. But it is more difficult to inspire the belief that they possess certain other qualities which go far toward the making of successful men and women. However, one who studies them without prejudice will soon discover that they are thrifty and non-destructive: that they care for and respect their toys in the spirit of young capitalists; further, that their facility of speech, their nicety of expression, is no mask for poverty of thought. They philosophize in their simple way; they reason from cause to effect, and seem constantly —if we may borrow a commercial phrase—to be "turning over" their fund of ideas; to be using what they have learned at school. This is especially true of all that relates to the history of France, which they regard as a drama easily represented and of absorbing interest. In the parks or squares of our American cities, it would be strange indeed to witness juvenile, mimic battles of Lexington, or to find youthful impersonators of Washington or Lincoln. But in France, the national heroes, Gallic, Frankish and modern, are so vitalized in the minds of the children, that a Vercingetorix, a Charlemagne or a Gambetta fights or declaims at every street-corner. Into the very heart of the children's pleasures the French mother enters. She is not regarded by her charges as a "kill-joy," watching and forbidding. She is held by them as a companion of ex-



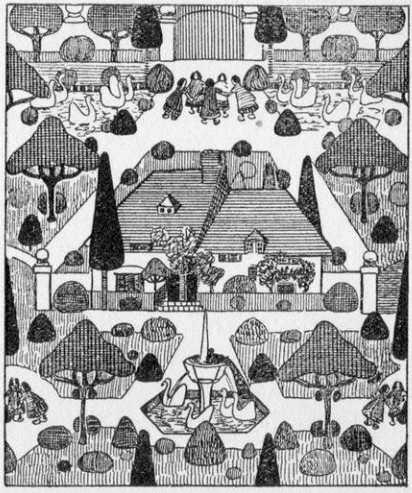
perience, skill and resource superior to their own; one devoted to their pleasures and able to set right their wrongs, but in no wise removed or removable from the scenes of their daily life.

This same bond between the mature and the young, resulting largely from the mental attitude of the former class, one sees exemplified in Paris in other similar and not less attractive ways.

During the pleasant season, in the gardens of the Tuileries and the groves of the Champs Elysées, the national "Punch," known as *Guignol,* daily recites his domestic woes and comes to his evil end at the hands of the hangman. And daily large and merry audiences of children flock to his booth at the sound of his shrill trumpet. Neither here is the mature element wanting. There is a sprinkling of adults who are attracted by the farce itself, and these, for the most part, are elderly men and women, apparently those who have few holidays and little to spend, but who, with true French economy, are striving to make the most of their resources. The mothers and the nurses who accompany their charges, are attractive, as showing how strongly the dramatic sentiment permeates all classes of French society. This fact is especially apparent in the case of the maids, who are not listless hirelings, but who, being themselves interested in Punch, his wife and baby, the dog and the deuce, make such comments upon the characters and the action as are no less eagerly sought for by the foreign listener than by the children themselves; since they are characterized by a sparkling, although familiar wit. Indeed, the audience of the French *Guignol* quite differs from the haphazard concourse found about the "Punch and Judy" of our American squares, or of the London streets. In Paris the place of exhibition is carefully chosen; little seats like orchestra chairs are quickly put in position, a rope is stretched about the whole, and, while the drama lasts, its precincts are invaded by no one save the waffle-men and the *madeleine* vender, whose cakes find an equal sale with the adults and with the children.

Still another personage of importance for all sorts, conditions and ages of the Parisians is the bird-charmer, who, elderly and wearing a workman's blouse, is seen, throughout the year, when the weather permits, in the gardens of the Louvre, or the Tuileries,

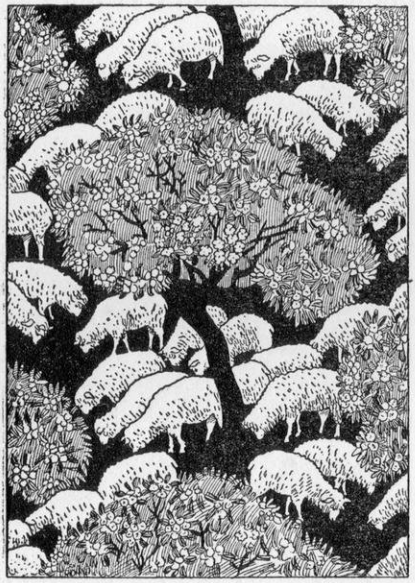
calling the wild birds by name, feeding them, exercising them in adroit little tricks, and then dispersing them by a quick signal of his hand. This man can not but recall Saint Francis of Assisi, who felt so keenly the bond existing between man and the peoples of feather and fin, and who, according to the old legend, is seen throughout Europe, pictured in missal, or on painted wall or window, as preaching to his little brothers of the air and water. By the modern workman the legend is again verified, and as long as there remain those of his kind (and they are many), there will be hope for the Latin races.



But we have wandered far from the designs presented by the French magazine. They are too engaging to be neglected longer. The first prize represented by our illustration, number one, shows a dance of children, in which the *art nouveau* line is used with discretion, forming harmonious spirals free from confusion. The separate strands of the spirals are managed with fine effect, as may be found upon close examination of the drawing, which shows them at their least expansion circling, like vine-branches, the feet and the neck of the same child; thence they pass on to form a swing for a baby seen from the back; next they are a point of support for the pirouettes of a miniature ballet-girl; finally they describe a wider figure which, as it spreads, accentuates a garland-like procession of girls and boys. The coloring too is modern: recalling Claude Monet's palette and also his use of "the spot:" whites, blues, heliotropes and reds appearing against a background of green turf and of rust-brown foliage.

The second prize, number two, of our illustrations, has also fine artistic qualitites. It is, moreover, suited to the childish comprehension, which would certainly fail to grasp the subtlety of the first composition. Here the baby-and-cat *motif* is adroitly man-

aged: giving a rapid impression of form, and pleasing by its full and sweeping curves. The design has, therefore, the first essential of all good things in modern art: it represents; it does not imitate. It is judged by the French editors as being highly original and well composed. It is also recognized as subject to the criticism that it resembles a design for a painted window, more than one for a wall-hanging. The stricture is just, in regard to both the drawing and the disposition of the color, which occurs in masses: spots of intense blue for the babies' gowns; pronounced green for the background; orange for the cats and the babies' shoes. But its remaining qualities should, perhaps, have given it first place. It is piquant and,—if the word may be allowed—witty. It provokes a smile at first sight. The gestures of the drinking children, the pose of the cat equally eager for the milk, the funny pointed collars circling the babies' necks, and the sharp ears of the cat have a style and accent unexpected in so slight a composition.



The third prize design composed of a villa, fountain with swans, trees, and a dance of children wearing wooden shoes, is one which is well adapted to its intended use. Nor can it fail to please the little people of the nursery to whom it will seem a flat picture of their wooden, toy village with which they are accustomed, now and then, to spend a happy hour. The older critic regrets that the French designer should have somewhat repressed his French spirit which shows, in the detail of the children's dance, in order to follow too closely the style of Walter Crane.

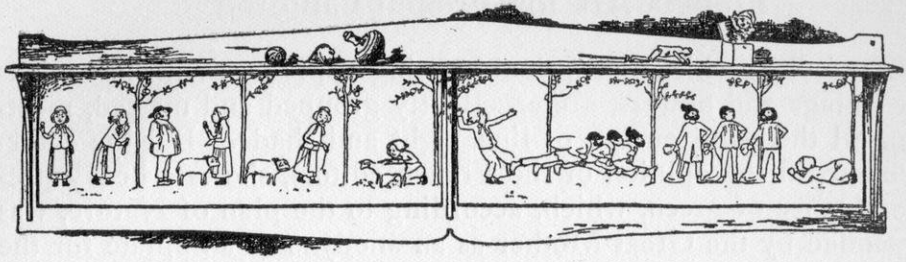
A fine design receiving honorable mention, recalls also, although more distantly, the school of decorative art beyond the channel. And yet it might have been composed by Bastien-Lepage for the background of one of his figure-pieces: for example, his Jeanne

d'Arc. The white sheep, the blooming apple-tree with its crowns of foliage and flowers, are excellently grouped and massed, meeting all the requirements of line, light and shade. But the color-scheme, in the opinion of the French editors, shows a heavy predominance of green, which, according to the plan of Nature, was intended by the Great Mother as an anodyne or an opiate for the vision: from which it is easily deduced that a too great proportion of green introduced into a picture will cause a corresponding loss of sensuous pleasure to the spectator, especially to the child.

The competition, criticised as a whole by the French judges failed in certain qualities which juvenile books, as well, are wont to lack. Among the many drawings offered for examination one defect was prominent, and that may be defined as a bold, insistent presentation of the subject, a lack of interesting detail, a poverty of thought and touch of which children would soon weary. From this defect or rather this group of faults, the "toy-villa design" is practically free: the *motif* being drawn on a small scale; the trees, the flowers, the swans swimming in the basins, the little villa and the fountain offering to the child as many themes for fairy-tales. Thus to appeal to the developing imagination and so to afford surroundings and belongings which are full of variety and charm, should be the first endeavor of all artists who devote their time and talents to the pleasure and the instruction of children.

THERE'S A WORLD OF CAPABILITY
FOR JOY, SPREAD ROUND ABOUT US, MEANT FOR US,
INVITING US.

ROBERT BROWNING



Housekeeping in Miniature

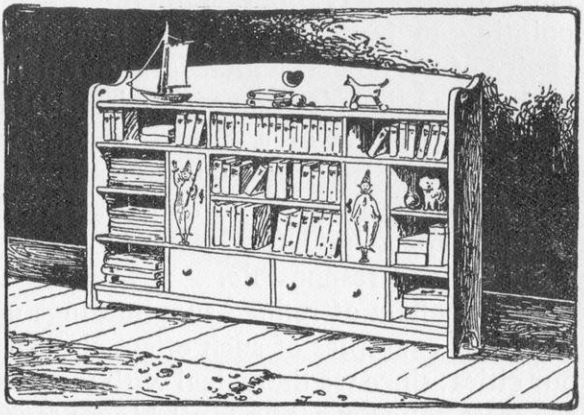
THE nursery should be the training-school of children. Not indeed a place of restraint in which hard lessons are learned and uncongenial tasks performed. But a room or an apartment of which the very atmosphere is charged with the spirit of activity, of invention and of pleasure. The nurseries of the rich too often resemble museums for juveniles, containing assemblages of the toys and games of all nations, ill-used libraries of picture-books, costly furniture and appointments destructive to the taste of the developing children of whom they form the material surroundings.

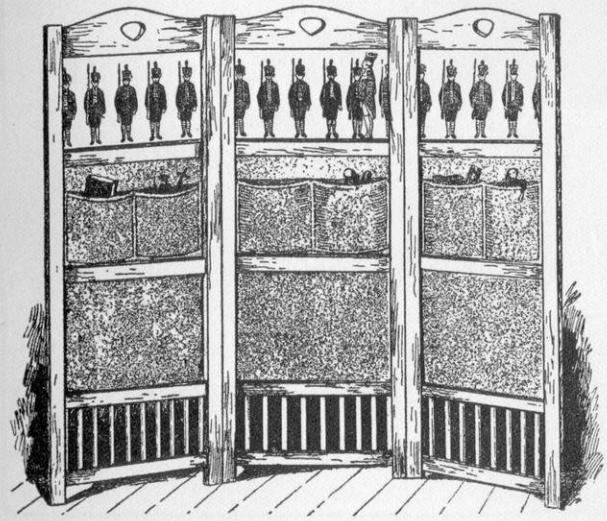
Less aggressive in expenditure than the nurseries of the rich, those of the middle classes are liable to be more dreary; since sometimes they serve as Snug Harbors for household belongings which have filled long terms of brilliant and showy activity. Such scarred and disabled veterans of service are pronounced "good enough for the children to finish," and so the little ones are wronged by their elders who, without intention, deprive them of an important means of pleasure and development.

The happy effect of good form and color upon the minds and humor of those who are daily brought into contact with them is coming to be generally acknowledged: not alone by artists and psychologists, but also by intelligent observers without special training. The recognition of this fact is but a revival and extension of an old idea. Among the ancient Greeks, expectant mothers surrounded themselves with beautiful objects, that the influence of such might, through themselves, be transmitted to their children. This sense of the fitting resulted from exquisite intuitions which we

By the Fireside

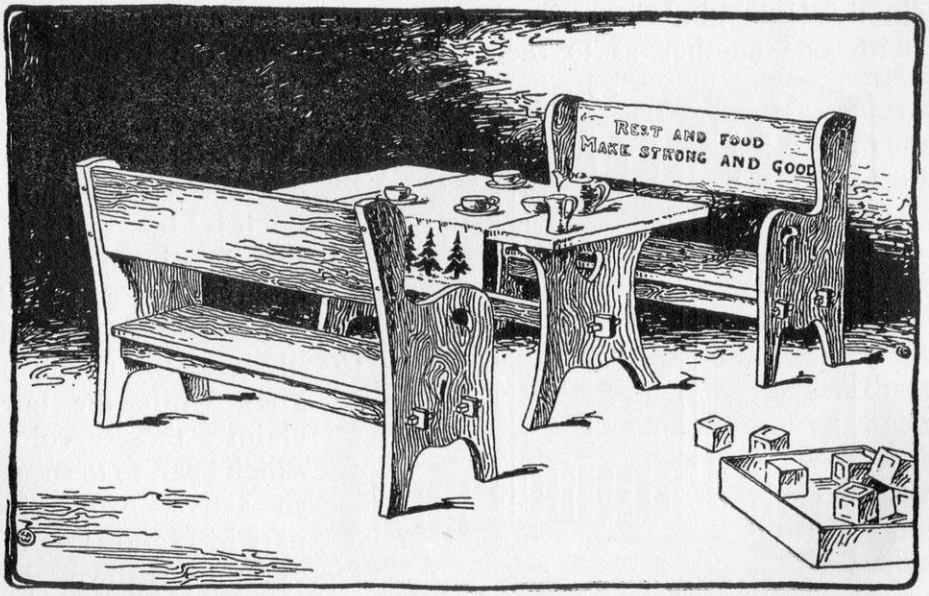
have now exchanged for the power of scientific analysis. To-day, we know that certain lines, through their action upon the visual organs, produce restlessness; that certain colors excite, certain others soothe and still others depress the eye. And these facts are but glimpses of an occult world of truths which remains to be explored. Beyond the general truths lie others more specific and subtile: such as are suggested in the spontaneous speech of persons noting their own impressions. We hear one individual declare that, when ill, certain designs in his rugs or wall-hangings "carried him to the point of insanity," while another person remarks that purple makes him sleepy. We observe, also, that children in their play often exercise their imaginative little minds in attributing colors to proper names; disputing with one another as to the relations between the two classes. "Henry, that is a green name!" one child asserts, while another contradicts: "Oh, no! I say it is blue." In this play it is interesting to observe that rose, red, violet and yellow are given to the names of girls, while the boys claim those colors which bear, so to speak, an active, productive part in Nature: as for example, brown, be-

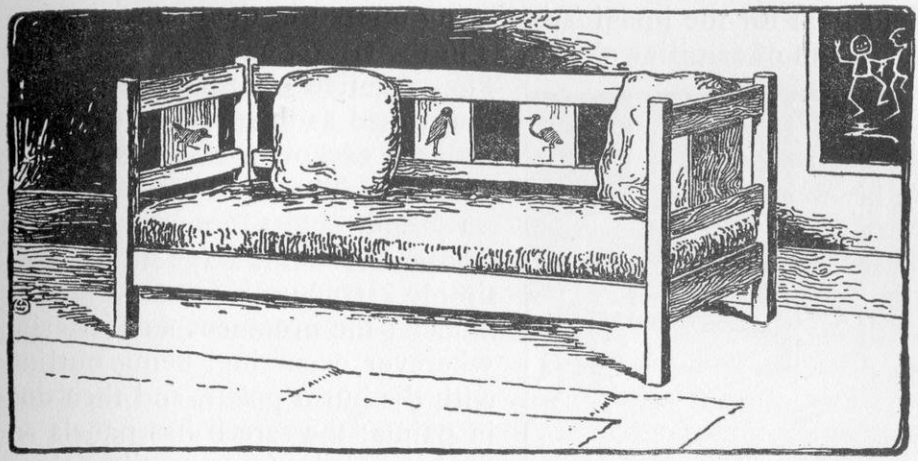




longing to wood; green, the universal back-ground; blue, representing the atmosphere. And so one might proceed indefinitely with these observations, gathered somewhat at random, but all pointing to important truths: indications which show that the choice of the objects which form our daily surroundings should be higher than the adoption of an historical style, or the acceptance of the color scheme of a chance decorator. Furthermore, if such considerations are important to those who can think, act and provide for themselves, they should receive double attention in behalf of those for whose future happiness and ultimate character we stand largely responsible.

The effect of refined surroundings upon children is best illustrated by examples of such effect chosen from among the slums of our cities; since we there deal with the classes whose sensibilities are the least delicate. The Hull House legend of the Irish child who cleansed a dingy lodging and afterward maintained it in cleanliness, that it might serve as a fitting shrine for a photograph which she had received from the Settlement, is as true in the abstract as in the concrete. The beautiful ennobles and uplifts; it creates for itself surroundings of purity and sweetness.

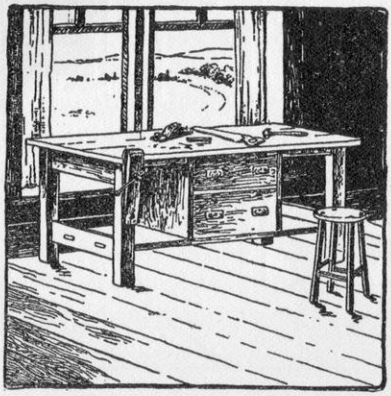




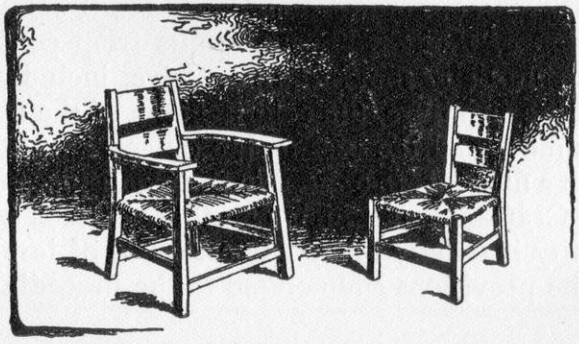
In view of the evidences thus adduced, it is vitally necessary that the life of our children be set in an environment carefully prepared: not necessarily, or even preferably a costly one, but one rich and enviable, because of the expenditure of judgment, discrimination and taste bestowed upon it. It is desirable, too, that the older children be given a part in the creation of the nursery; that they be taught early to recognize and honor what is admirable in an artistic sense, as well as what is morally right. In childhood imagination is strong and imitation an uncontrolled impulse. It would therefore be easy and advisable to instruct the men and women of tomorrow how to superintend and, in some cases, how to execute even, the fitting and furnishing of the apartment which serves as their first school, more important to them than the college.

The prime essential of such an interior is simplicity, in order that the child's sensuous impressions may be well-defined and clear: since confusion of thought always results from confused perceptions. This simplicity should be pervasive, including the structural lines of the furniture, the color-scheme of the room or apartment, the number and the uses of the objects admitted. Suggestions for such a nursery are offered in the frontispiece of the present issue of The Craftsman, in which a middle course between bareness and superfluity is strictly observed: clearness of impression being assured by the provisions enumerated in the preceding paragraph,

and food for the imagination being offered in the pictorial representation of familiar objects, as in the frieze, or the chimney-tiles.



The detailed illustrations are so easily read as to explain themselves, with the exception of a few unusual minutiæ. The small tables, benches, seats and chairs are reduced and modified from the large pieces of the simple, structural Gustav Stickley models; the ornament and lettering, wherever occurring, being outlined with the burnt poker, and then done in paints; the screen has panels and pockets made from textile fabrics, and the attractive picture-frame is also a shelf offering hospitality to amusing toys. The same double use is found in several other objects: such as the screen, which is at once a protection from heat or cold, and a receptacle; and in the table, which is intended for work, play or reflection. It is well also to note that the little *motifs* of decoration have been adapted from two master-artists dear to childish hearts, Walter Crane, and the very individual Frenchman, Boutet de Monvel. As a last word, it may be said that the foregoing suggestions and pictures are sent out with the hope that they may be received with a pleasure equal to that which presided at their planning. It may be repeated that these schemes can be easily executed under the supervision of a local joiner; the mother and children assisting in the finer and decorative details.



Cross-stitch Embroidery

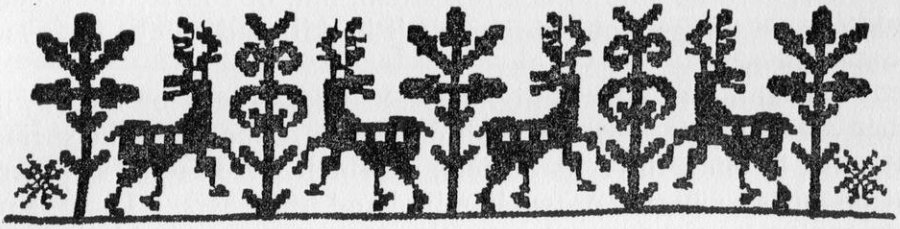
MARY W. STRICKLAND

IT is a matter of conjecture among craftsmen to-day as to what has brought about the revival of the cross-stitch embroidery, once so universally done, but which, for years, has been relegated to the attics and almost forgotten. Of late, people have awakened, either to the artistic value of their grandmothers' samplers, or merely to an appreciation of their quaintness and humor, and have brought them forth to decorate walls with their soft, faded beauty. Even this was done long before any one thought, or attempted, themselves to make use of the old stitch, a fact which seems strange when one sees how comparatively simple this stitch is and how very effective. Almost any one who can handle a needle should be able to do cross-stitch, but, of course, to execute really good things requires some artistic skill and an eye for good color schemes.

One thing to which might be attributed much of the newly awakened interest was an exhibition held in London, in the spring of 1900, by the Fine Arts Society, at which were shown samplers made during a period of two hundred and fifty years. These samplers were loaned from almost all quarters of the world, and the interest created by them was quite remarkable. Those who arranged the collection discovered that the simplers dated as far back as 1648, and that then occurred a sudden and perplexing stop. None can be found before that date, but they must have existed previously, for Mr. Marcus Huish of London, who has gotten out a very beautiful book upon the Exhibition, entitled "Samplers and Tapestry Embroidery," says that these earliest ones "are writ all over with the evidence that the sampler was then a fully developed growth, and these must have been the descendants of a long line of progenitors." We know that they existed long before the date given, from references which can be found in writings of earlier dates. Shakespeare and Milton both mention them, making it evident that samples were common early in the sixteenth century.

More exhibitions, such as the one held in London, would, without doubt, bring back the best and truest ideas in cross-stitch. Some of our museums have splendid specimens of the different varieties of cross-stitch, which are not generally on exhibition, but which should be shown, as well as the old Japanese and Persian

embroideries, as examples of the work of our own people. Ruskin once wrote an article on the arrangement of a museum, setting aside six rooms "for the exposition of the six queenly and muse-taught arts: needle-work, writing, pottery, sculpture, architecture and painting." He also specified that the room for needle-work should contain beside rare, old works, "the counter-panes and samplers of our lovely ancestresses."



Cross-stitch—or as it is sometimes called, canvas stitch—was probably the earliest, and certainly the simplest stitch employed in embroidery. Originally it was used only on a canvas cloth with a square weave; but later, it was made possible to use any kind of plain material, by the aid of a coarse open-work canvas which is stiffly starched and basted over the desired material. The squares of this serve as a guide, and when the work is finished, the threads of it can all be pulled out. There are several kinds of canvas-stitch, but beside the ordinary cross-stitch, which is most used, some of the finest and most beautiful things are done in what seems a much more difficult stitch, but which is practically the same thing. This is done on very loosely-woven linen, and the back-ground is worked all over with cross-stitches, which being drawn very tightly, pull apart the threads of the linen, giving it an open-work effect. The design is left in the plain linen. There are many beautiful specimens of this kind of work to be seen in museums, some of which are so fine that it seems as if they must have been done with a magnifying glass.

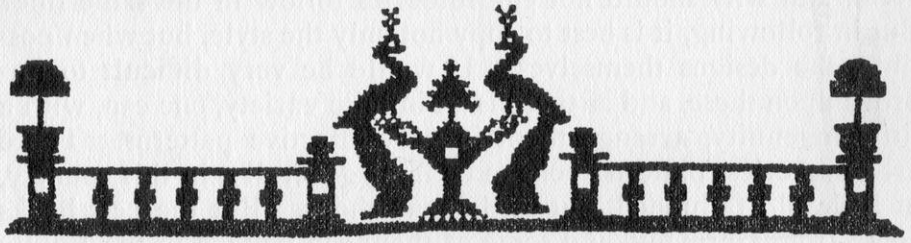
The shape of the old samplers was according to the way the linen was woven: generally long, narrow strips, with rough, irregular selvedges, and almost never hemmed across the ends. They were, at the very beginning, a sort of memorandum book for patterns, and were worked all over with portions of designs to serve as guides for future copying. There were no books of letters as we have now; so that all the different styles of letters which could be used in the marking of the household linen were worked upon the samplers; sometimes in the form of Biblical texts, or quaint verses, or simply the alphabet. This continued for years, until some ingenious spirits began to decorate their samplers; first with flowers, and later, animal forms were added. Flowers lent themselves quite readily to the domestic artist, as they were less rigid in their outline than animals, and could be made into really graceful and pretty designs. Birds and beasts, however, become necessarily rather crude in outline when put on to canvas; but this very crudity only adds to the quaintness of the design and gives it a piquancy that comes as a delightful change after ordinary embroidery. The angular lines of antique jewelry and furniture are in course of revival, and why should not embroideries follow in the same line? But in following, it is best to copy not only the style, but when possible, the designs themselves. It would be very difficult to improve upon these, and as there is an infinite variety, one can, with a little ingenuity, arrange them in very effective patterns. There are numberless pattern books to be had; generally, in this country, in little old-fashioned, out-of-the-way shops. But the best books come from Germany, and some of them can be seen in the Public Libraries, if it is impossible to buy them. Even though cross-stitch is not so well favored in Germany as it was, years ago, it is still sufficiently used to warrant the occasional publishing of new books.

The chief difficulty in much of the German work is lack of good taste in coloring: a fault which quite spoils the design. Walter Crane says: "If taste can be said to be more important in one art than another, it is cetrainly all important in needlework. It enters in at every stage: in planning appropriate designs, in choice of scale, in choice of material and, above all, of color." The soft old colors used in our grandmothers' samplers are what we ought

to have, but it is extremely difficult to get them. William Morris succeeded in dyeing the lovely old blues, pinks and greens, which seem faded in the samplers, although in reality, they are not; but it is next to impossible, in this country, to obtain any of his silks.

For cross-stitch the coarsely-woven materials are much more effective than smooth linens, and ordinary Russia crash in the various shades of gray, makes a fine background. The thread to be used depends largely upon the taste of the embroiderer. Silks can be used, but the modern mercerized cottons are found in pretty, artistic shades, and work up beautifully; while the German tambour cottons, in various shades of blue, appeal most strongly to the lovers of old blue-and-white embroideries.

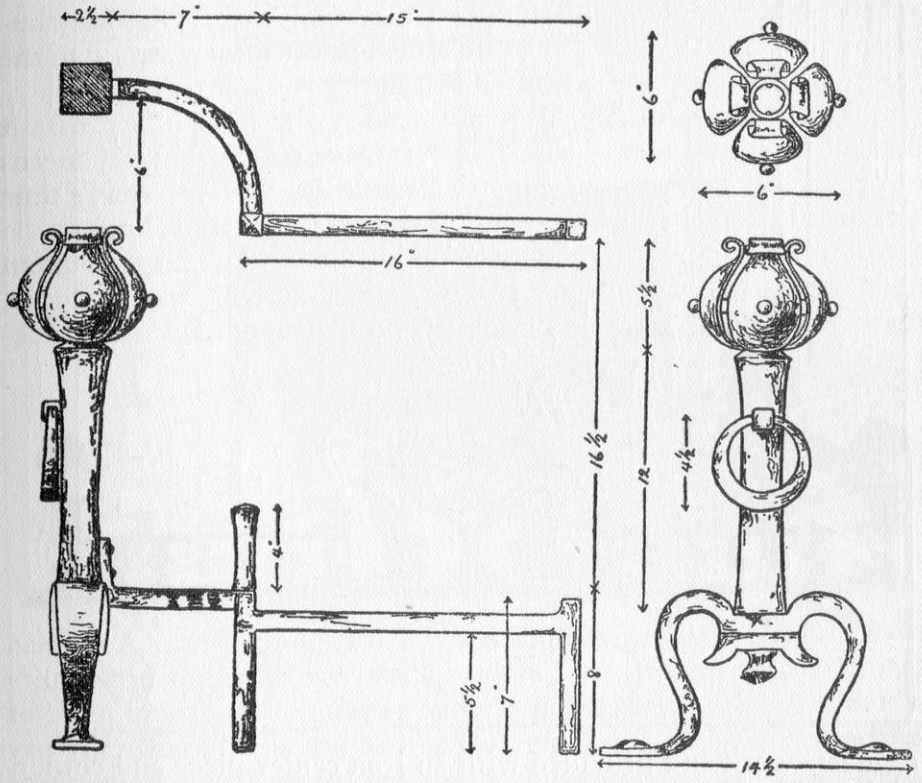
Embroidery, to-day, does not occupy the same place that it did before the advent of machinery. Once it was the only means of decorating cloth for clothing or decoration, and a woman's time was of little value when household cares were few and simple. So the days were spent almost entirely at needle-work. Now, modern machinery weaves good fabrics with artistic designs, and, as a rule, those lacking the time or the ability to embroider, buy machine-



work, rather than pay the price asked for hand work. A woman should really be her own embroiderer, for it is the personality which gives the essential importance to a sampler, or any piece of needle-work. If that be impossible, then one should willingly pay the price, for a really good and perfect thing: the handiwork of some craftswoman, who for love of the beautiful, or through need, has fashioned a piece of artistic merit.

A Family Fireplace

AS the heart is to the human body, so is the fireplace to the home. From it flows the sustaining power of family life. In the early times of the village-community, before small groups of individuals had absolutely segregated into families,—as for example in the sheepfold of the Palatine Hill,—one fire sufficed for the village, and over it were appointed, as guards, the most sacred persons of the tribe: the girl children, who watched the flame believed to have been stolen from heaven,

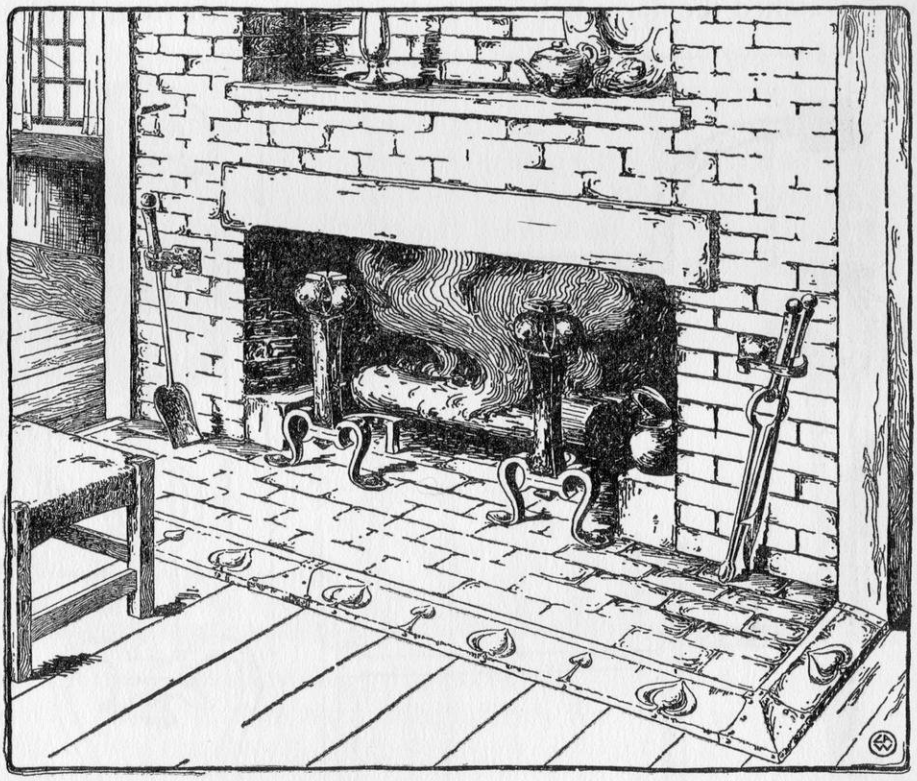


while the rougher and stronger of the community pastured the herds and flocks. Something of the old sanctity still lingers about the hearth, and it is tacitly acknowledged even by the most careless of those who gather around it.

This spot should be the most attractive of the home. It should be expressive of comfort and offer the sensuous pleasure which is

derived from the presence of good form, pleasing color and a harmonious assemblage of materials.

The fireplace shown in our illustration is a detail of the "Craftsman House," pictured and described in the May issue of the Magazine. As before noted, the chimney and hearth are laid in Harvard brick, with black mortar and wide, "raked-out" joints. The copper curb is set over a wooden frame; it is ornamented in

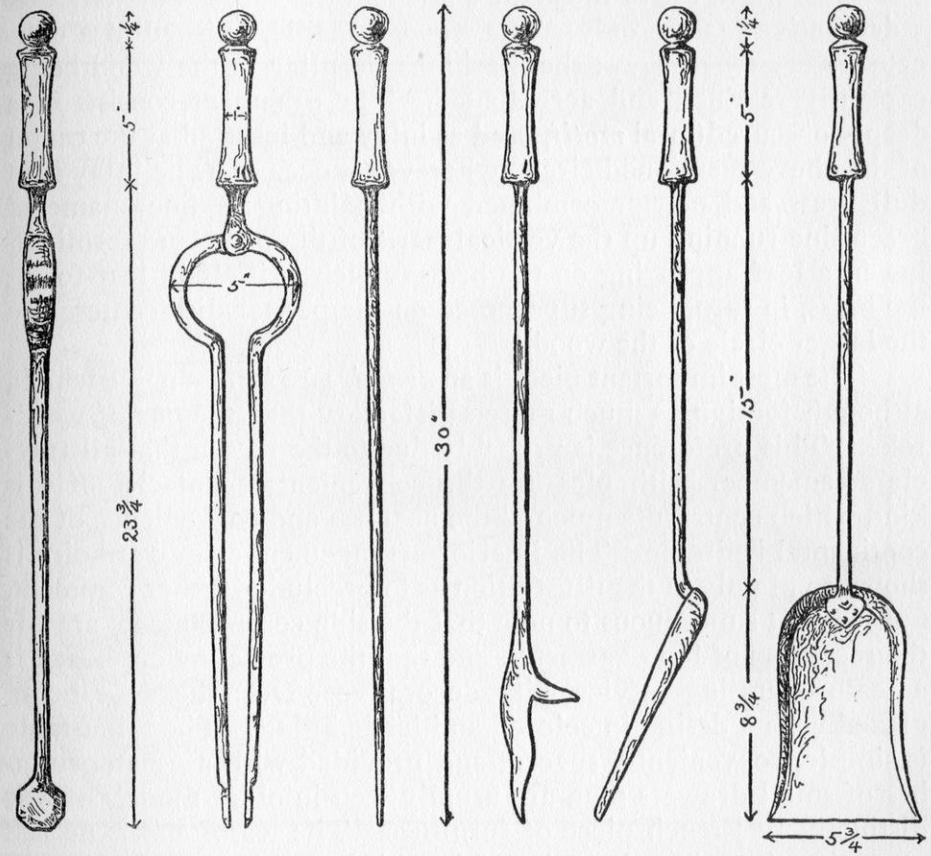


repoussé work and provided with an iron center-piece and corners, which contrast well with the principal metal-work of the piece.

The andirons, here shown in working drawings, further deserve a word of description.

The thick portion of the piece is made from a two-inch square bar of iron (in the rough three inches longer than when finished), which, heated, is hammered from the ends: a process called "up-

setting," and productive of graceful curves. Two pins fixed in the base, render it firm and prevent it from turning. The ring, fixed to the shaft, widens toward the bottom, and is made from a bar of iron drawn out by forging; while the fire-rest, or back part, is formed from pieces forged together. The head of the andiron is

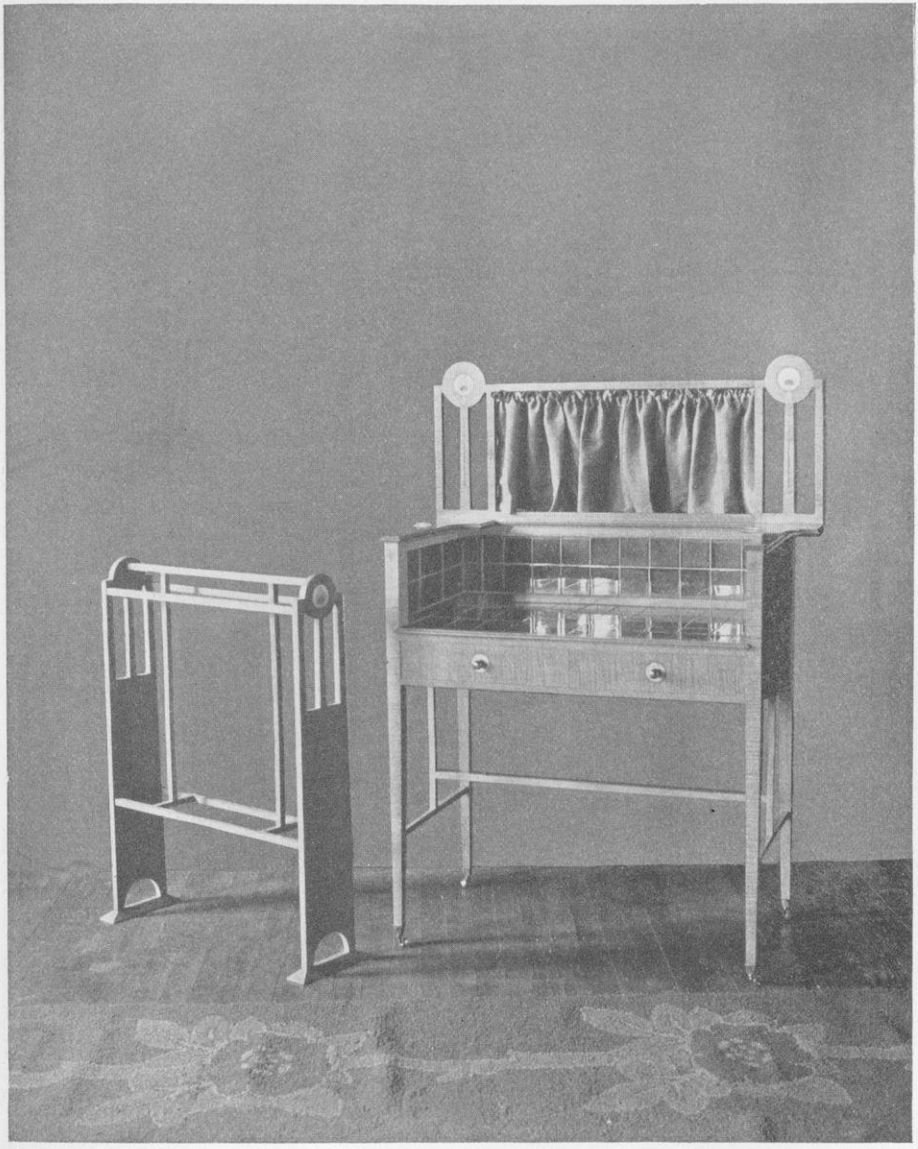


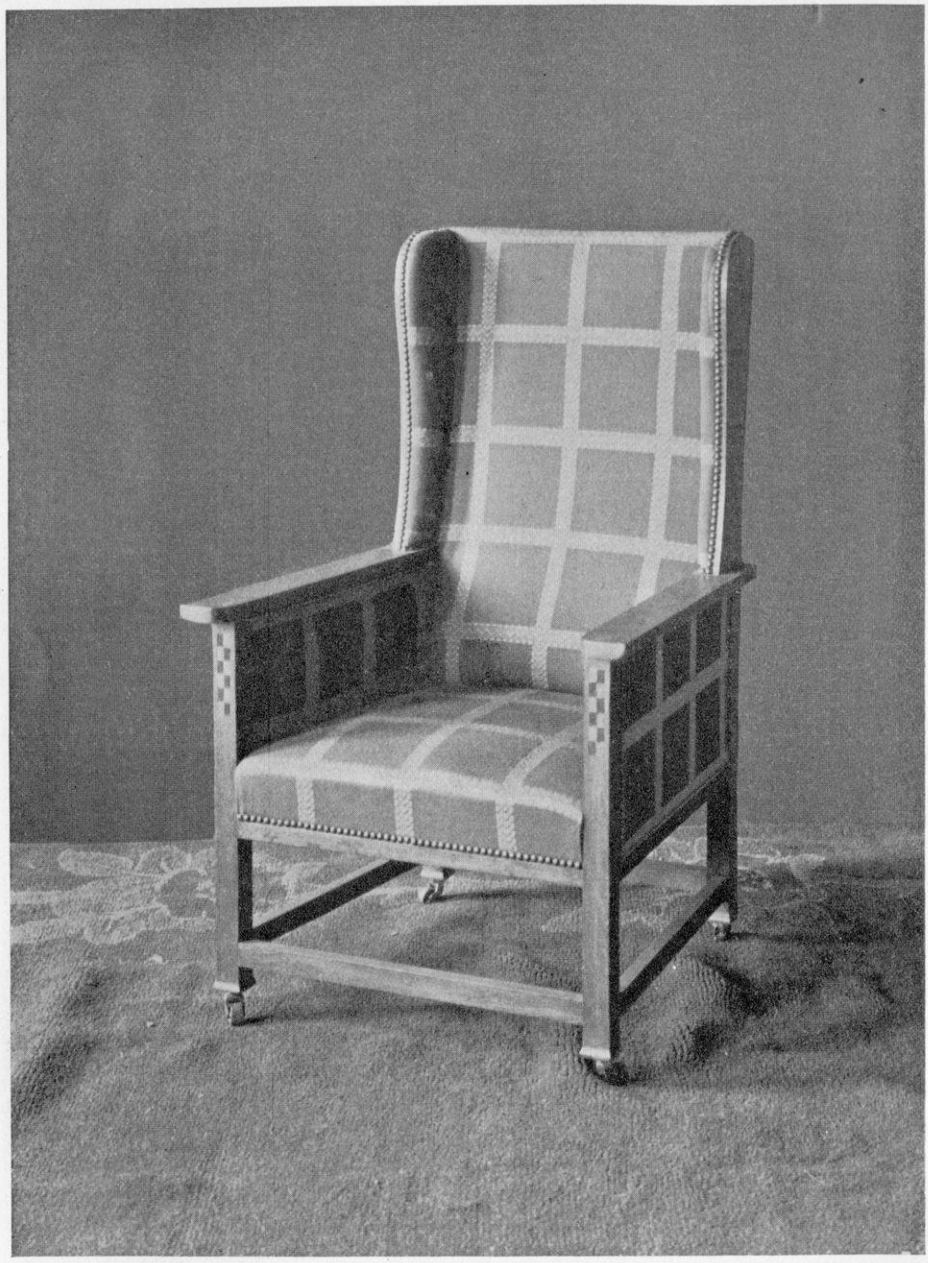
made from sheet-iron, one-eighth of an inch thick: the pieces cut out with blacksmiths' shears and filed to the exact form of the pattern; they are then shaped over a block of hard wood—usually oak which has been hollowed out—and are beaten with a round-headed hammer. The metal is treated according to the methods described under the title "Work Ennobles," in the May number of The Craftsman.

Recent English Models for Bedroom Furniture by J. S. Henry

THE accompanying illustrations present a number of models for the furniture of a bedroom, presumably that of a woman. As will be seen by reference to the pictures, the unit of construction is the right angle, with slight use of the acute angle and the curve,—the latter as a decorative feature only. The wood is maple, finished in a delicate silvery-toned gray: the markings peculiar to the wood being carefully retained and accentuated. The ornament consists in a deeply obscured floral *motif*, used as inlay and inserted at the center of the above-mentioned circle, wherever it occurs. The inlay is of dull brass and pewter combined with painting: a fine enameled green line running up the vertical parts of the piece and terminating in a leaf appearing on the brass, which is itself in leaf-form: the brass, in turn, being superposed on the pewter disk centered in the larger circle of the wood.

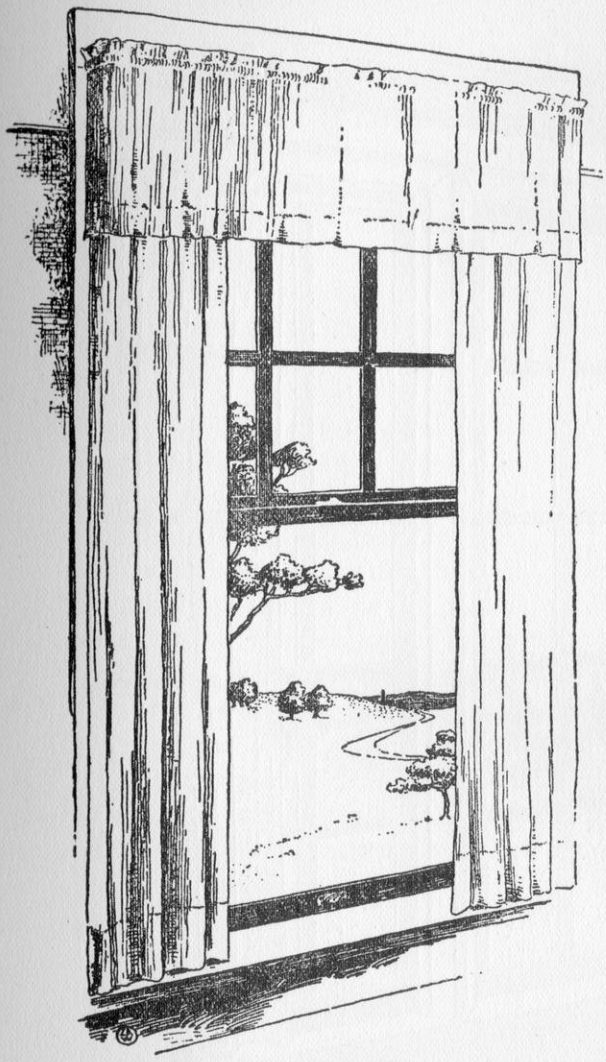
The most important piece is an *armoire à glace;* a name which, although foreign, is much more satisfactory than the one of wardrobe. This preference is probably due to the reason that all travelers remember with pleasure the convenient receptacles of this kind which contribute much to the neatness and convenience of the continental bedroom. The interior arrangement of our armoire is shown so plainly in the illustration as to preclude further comment, but it is not superfluous to note that the side compartments are for the reception of long garments, and that the projecting cupboard is a feature uniting service with decorative effect: the door being glazed with a design in colored and leaded glass. The toilet-table is simple, conveniently spaced, and provided with a greater number of small drawers than are usually seen in older models of this distinctively French piece of furniture. The washstand is no less attractive than the other pieces; its chief serviceable, cleanly and sanitary feature being the tiled top and back, which are in highly-glazed green faïence, contrasting with the beautiful gray of the wood, and completing the color-scheme which was begun in the inlay.





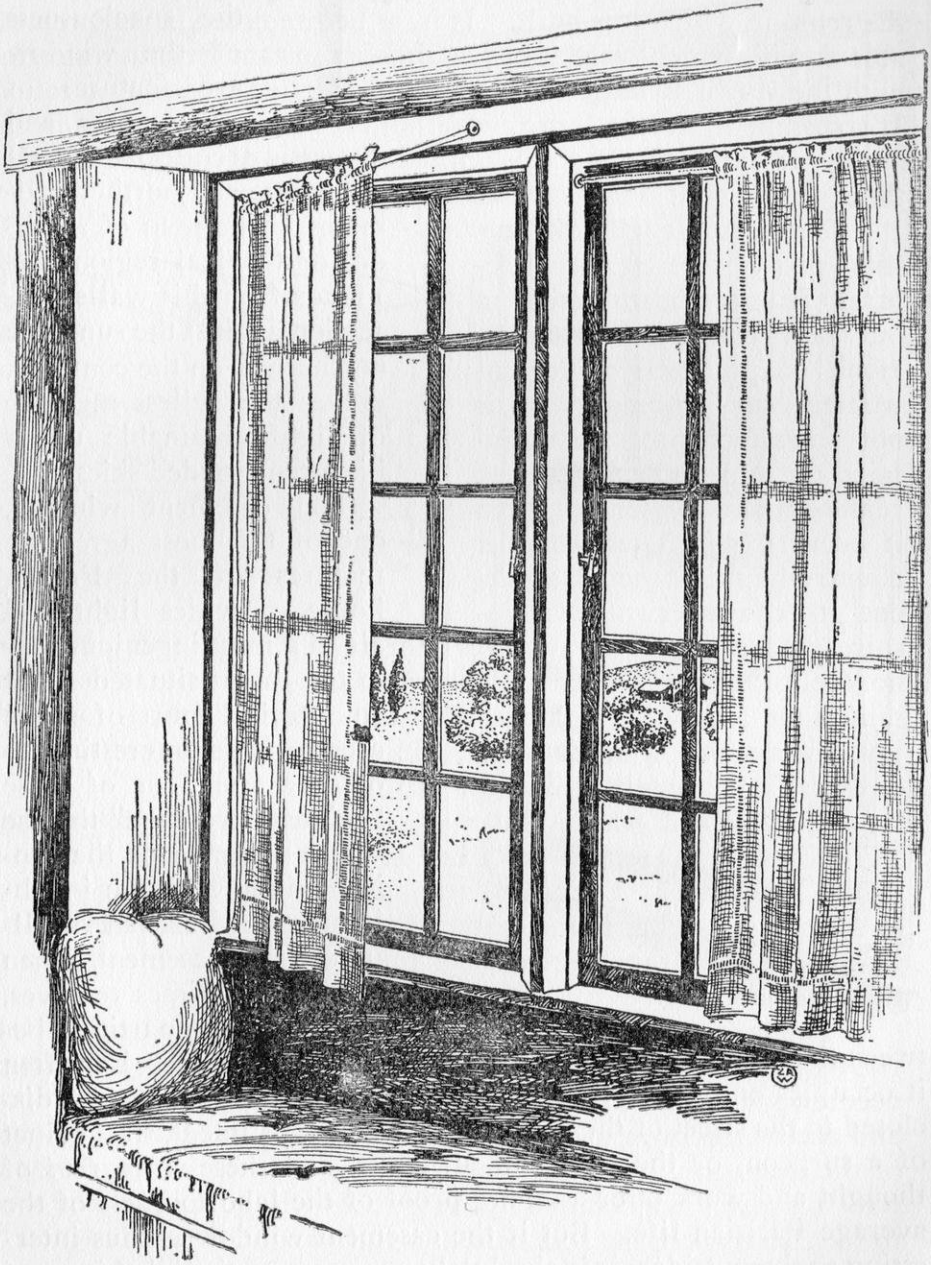
Arm chair by Scull and Son; shown at
Arts and Crafts Exhibition, Syracuse, N. Y.

A Casement Window

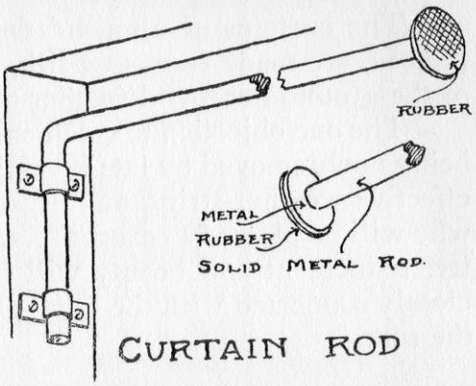


THE frequency and the spaciousness of the window are features of the secular and domestic architecture of all temperate and northern climates. The man of southern or tropical regions demands from his walls protection against the sun. The northerner, on the contrary, craves the fullest measure of light obtainable under his often clouded skies.

The casement window, one of the most agreeable features of the French house, provides light and air in a most ingenious way to the rooms situated about an interior court of small area. It is interesting to observe from one of these "coigns of vantage" the use which is made of the typical window by the inhabitants of a Parisian dwelling. The casement, when opened, sometimes removes, as it were, the partition between the room in which it is cut and the outside world. For often it occupies one entire side of the four walls. One thus sees disclosed to the street or the court the library of a student, the cabinet of a surgeon, or the studio of an artist, and these little *foci* of thought and work offer a strong proof of the laboriousness of the average Parisian life. But if the casement window is thus interesting to the outsider, it is absolutely necessary to the inhabitant of



the room in which it is built. It is, as before noted, a wall removable at will, which suspends or establishes instantly communication with the world at large. It is a most effective means of aeration. It transmits light in a large area, thus enabling the workers in the otherwise dark and generally limited divisions of space, to carry on their occupations with convenience and comfort.



CURTAIN ROD

The casement window, unlike many foreign architectural features transferred to our new country and conditions, adapts itself to its unwonted surroundings. It is not an affectation. It maintains the old and creates new reasons for its existence. Even if occurring in a suburban or country-house, it never weakens its characteristics: it inspires in the one whom it serves cheerfulness and hope. He does not feel confined, as when he looks from a window that is not at the same time a door. He knows that the outside world is to be enjoyed or avoided at his own will. He can admit floods of sunlight, or he can bar himself against the storm.

The casement windows shown in our drawings, are taken from "The Craftsman House," described and illustrated in the May issue of the Magazine. They are curtained in a way peculiarly suited to their uses. That is the material, arrangement and mechanical fixtures of the drapery concur in preserving the original idea of the casement.

The larger ground-floor window is draped with a hempen fabric, which is slightly uneven in texture and of a weave resembling a needlework stitch. The drapery is hung in straight folds to repeat and accent the form of the window, as well as the prevailing lines of the interior. It is fixed upon a metal rod, the arrangement of which is given in a detailed drawing. As will be seen by reference to the illustration, the rod, bent at a right angle, is first fastened by metal bands, at some distance down the upright part of the window

frame; its upper termination being fitted into a rubber wheel of much greater diameter than itself. When the casement is closed and the curtains are drawn, the wheel, resting against the wood, holds the rod, with its weight of drapery, in place. But when it is desired to open the window, a single movement of the hand draws rod and curtain in retreat, parallel to the movement of the casement, which opens inward.

The curtains of a second floor-window, shown in a separate picture, are made from raw-silk, hemstitched and hung like those of the ground floor, and further topped with a straight vallance.

The one objection to casement windows: that is their looseness, being now removed by late inventions of well-tested and absolutely effective weather-strips, our illustrations can not fail to find those who will be pleased to execute them, in homes where their simplicity, refinement and beauty will be a constant source of pleasure closely connected with the great giver of warmth, light and health, the sun.

FROM MAETERLINK'S LIFE OF THE BEE

Day after day, at the hour of sunrise, the explorers of the dawn return, and the hive awakes to receive the good news of the earth. "The lime-trees are blossoming to-day on the banks of the canal." "The grass by the roadside is gay with white clover." Whereupon the bees must organize quickly and arrange to divide the work. . . . Those who yesterday were absorbing nectar from the corollas, will to-day repose their tongue and the glands of their sac, and gather red pollen from the mignonette or yellow pollen from the tall lilies; for never shall you see a bee collecting or mixing pollen of a different color or species, and indeed one of the chief preoccupations of the hive is the methodical bestowal of these pollens in the store-rooms, in strict accordance with their origin and color.

A Chapter from Prince Kropotkin

"MUTUAL AID IN THE MEDIÆVAL CITY."

EDITOR'S NOTE.—The Craftsman, in its May issue, published a somewhat extended notice of Prince Kropotkin's work: "Mutual Aid, A Factor of Evolution." But so much of value and interest is contained in this series of essays, that one of them is again presented in review. This is done in the belief that the research and writing resulting from the seven years' work of a highly developed individual of, perhaps, the most assimilative of modern peoples, deserve more than a passing consideration. Rather, that they should be brought again and again to public attention; even though the series, when published in separate essays and, on occasion, in the "Nineteenth Century," from 1890 to 1896, received wide appreciation. More especially since the work, as then divided, could not be studied to advantage, as now in the form which it has recently assumed.

IN his latest and great work, "Mutual Aid: a Factor of Evolution," Prince Kropotkin devotes a chapter to the constitution of the mediæval city. This essay is of the most vital import to craftsmen and all manual workers; since they can gain therefrom a conception of the natural dignity of labor and of the high honor in which it was held in the most organic state which society has yet known. The entire book is an argument to prove that above the *Law of Mutual Struggle* there exists, throughout Nature, the *Law of Mutual Aid:* that is, that the social instincts alike of men and of animals are in excess of and dominate those destructive instincts which all living beings possess to a greater or less degree.

The mutual aid factor in the mediæval city, M. Kropotkin shows to be but the impulse of insects, animals and savage men toward self-preservation and mutual aid: the instinct having been highly developed, specialized and moralized.

The chapter, although a middle point in an extended argument, can be isolated without losing anything of its force. Yet for purposes of comparison and proof it is important to recognize the spirit of sociability and solidarity among the small creatures whose life and polity are analyzed at the beginning of the work.

Of the ant M. Kropotkin writes: "If this insect—apart from the still higher developed termite—stands at the very top of the whole class of insects for its intellectual capacities; if its courage

[1] Mutual Aid, a Factor in Evolution, by Pierre Kropotkin. McClure, Phillips & Company, New York. 328 pages. Full cloth 5 1-2 x 8 1-2 inches. Price $2.50 net.

is only equalled by that of the most courageous vertebrates; and if its brain—to use Darwin's words—'is one of the most marvellous atoms of matter in the world, perhaps more so than the brain of man,' is it not due to the fact that mutual aid has entirely taken the place of mutual struggle in the communities of ants?"

Concerning bees we find the following clearly formulated statements:

"These small insects by working in common, multiply their individual forces; by resorting to a temporary division of labor combined with the capacity of each bee to perform every kind of work when required, they attain such a degree of well-being and safety as no isolated animal can ever expect to achieve, however strong or well-armed it may be. In their combinations, they are often more successful than man, when he neglects to take advantage of a well-planned mutual assistance. Thus, when a new swarm is going to leave the hive in search of a new abode, a number of bees will make a preliminary exploration of the neighborhood, and if they discover a convenient dwelling-place—say, an old basket—they will take possession of it, clean it and guard it, sometimes for a whole week, until the swarm comes to settle therein. But how many human settlers will perish in new countries, simply for not having understood the necessity of combining their efforts . . . . . Further, bees display none of the sanguinary proclivities and love of useless fighting with which many writers so readily endow animals. The sentries which guard the entrance to the hive pitilessly put to death the robbing bees which attempt to enter the hive; but those stranger bees which come to the hive by mistake are left unmolested, especially if they come laden with pollen, or are young individuals which can easily go astray. *There is no more warfare than is strictly required.*"

"The sociability of the bees is the more instructive as predatory instincts and laziness continue to exist among them as well, and reappear each time that their growth is favored by some circumstances. It is well known that there are always a number of bees which prefer a life of robbery to the laborious life of a worker; and that both periods of scarcity and periods of an unusually rich supply of food lead to an increase of the robbing class. When our

crops are in and there remains but little to gather in our meadows and fields, robbing has become of more frequent occurrence; while, on the other side, about the sugar plantations of the West Indies and the sugar refineries of Europe, robbery, laziness, and very often drunkenness become quite usual with these insects. We thus see that anti-social instincts continue to exist among the bees as well; but natural selection continually must eliminate them, because, in the long run, the practice of solidarity proves much more advantageous to the species than the development of individuals endowed with predatory inclinations. The cunningest and shrewdest are eliminated in favor of those who understand the advantages of sociable life and mutual support."

From insects and animals formed into mutual aid associations, —even such as those of lions for hunting, and of birds for migration,—M. Kropotkin proceeds through the savage clan, and the village community of the barbarians in the period immediately following the fall of the Roman Empire; thus reaching the highly developed organism of the mediæval city. He then argues that when the last vestiges of barbarian freedom were disappearing, when absolute monarchies and theocratic states were developing, a strong, new element of life made itself felt in Europe. The fortified village rose against the lord's castle, defied it first, attacked it next, and finally destroyed it. The movement spread over all the surface of Europe, calling the free cities into being, and gathering such force that, within three or four centuries, it changed the very face of the entire continent. Wherever men found, or expected to find, protection behind their own walls, they instituted their "conjurations," their "fraternities," their "friendships," united in one common idea, and boldly marching toward a new life of mutual support and liberty. At this point, the Russian writer grows eloquent as he describes the work and influence of these strongly organic bodies of men. He writes: "They covered the country with beautiful, sumptuous buildings, expressing the genius of free unions of free men, unrivaled since for their beauty and significance; and they bequeathed to the following generations all the arts, all the industries, of which our present civilization, with all its achievements and promises for the future, is only a further development.

And when we now look to the forces which have produced these grand results, we find them—not in the genius of individual heroes, not in the mighty organization of huge States, or the political capacities of their rulers, but in the very same current of mutual aid and support which we saw at work in the village community, and which was vivified and reinforced in the Middle Ages by a new form of unions, inspired by the very same spirit, but shaped on a new model —the gilds."

As early as the tenth and eleventh centuries, the *Law of Mutual Aid* had effected great results for civilization. The little town of Amalfi, in the bay of Naples, worked out a system of maritime and commercial law which, later on, became a model for all Europe; Ravenna elaborated its craft organization, and Milan, Bruges and Ghent, with several cities of France, became important centers of labor and commerce. The gilds supplied the necessary element, which, joined to the village-community principle, was necessary to give unity of thought and action to those growing centers of liberty and enlightenment.

The first characteristic of the mediæval gild was the equality of the members before the association. The brothers owned some "chattel" (cattle, land, buildings, places of worship or "stock") in common. Upon entrance, they agreed that no quarrel among themselves should be brought before another court than the tribunal of the brothers themselves. If a brother was involved in a quarrel with a stranger to the gild, his companions agreed to support him for bad and for good; that is, whether he was unjustly accused of aggression, or really was the aggressor, they were forced to support him and to bring things to a peaceful end. They went to court to maintain by oath the truthfulness of his statements, and if he were found guilty, they did not let him go to full ruin and become a slave through not paying the amend: they all paid it, just as the *gens* did in classic antiquity. Only, when a brother had broken faith toward his gild-brethren, or other people, he was excluded from the brotherhood "*with a Nothing's name.*"

In proportion as mediæval life segregated into a great variety of pursuits, the variety in the gilds grew in proportion. So, there were gilds of craftsmen, merchants, priests, painters, teachers of

primary schools and universities, gilds for performing the Passion Play, for building a church, for developing the "mystery" (that is, teaching the practices) of a given school of art or craft, or for a special recreation—even gilds among beggars, executioners, and fallen women: all organized on the same double principle of self-jurisdiction and mutual support. "The gild," continues M. Kropotkin, "answered to a deeply inrooted want of human nature, and it embodied all the attributes which the State appropriated later on for its bureaucracy and police, and much more than that. It was an association for mutual support in all circumstances and in all accidents of life, 'by deed and advise.'

It was an organization for maintaining justice—with this difference from the State, that, on all these occasions, a humane, a brotherly element was introduced, instead of the formal element which is the essential characteristic of State interference. Even when appearing before the gild tribunal, the gild-brother answered before men who knew him well and had stood by him previously in their daily work, at the common meal, in the performance of their brotherly duties: men who were his equals and brethren indeed, not theorists of law nor defenders of some one's else interests."

Having thus defined the constitution of the gilds, M. Kropotkin relates how the mediæval city organized itself as a federation both of these associations and of small village communities. To picture the conditions thus established, he quotes from a mediæval chronicler, who, inveighing against the new spirit, wrote that: "the Commune is an oath of mutual aid. . . . A new and detestable word! Through it the serfs are freed from all serfdom; through it they can only be condemned to a legally determined fine for breaches of the law; through it, *they cease to be liable to payments which the serfs always used to pay.*"

The charters of the mediæval communes, M. Kropotkin remarks, offer the same variety as the Gothic architecture of their cathedrals and churches: the same leading idea existing in all of them, together with the same infinitely rich variety of detail. Of all these charters, self-jurisdiction was the essential point and was equivalent to self-administration. This principle was carried to an extreme limit, decentralizing the city itself. For example, in

Venice, each island was an independent political community. Each of these small areas had its gilds, its own commerce in salt, its laws and its forum, and the nomination of a doge by the city changed nothing in the inner independence of the units. In Cologne, the inhabitants were divided into neighbor gilds; while the story of London, according to Mr. Green, the historian, is that "of a number of little groups scattered here and there over the area within the walls; each growing up with its own life and institutions, gilds, religious houses and the like, and only slowly drawing together into a municipal union." The mediæval city thus appears as a double federation: first, of all householders united into small territorial unions—the street, the parish, the section—and of individuals united by oath into gilds according to their professions; the former being a product of the village-community origin of the city; while the second is a subsequent growth called to life by new conditions.

The chief aim of the mediæval city was to guarantee liberty, self-administration and peace; its chief foundation was labor. To provide "the common first food and lodging of poor and rich alike" was the principal care and effort of the governing body. The purchase of common food supplies and other first necessaries (coal, wood, etc.) before they had reached the market, or altogether in especially favorable conditions from which others would be excluded, was entirely prohibited. Everything had to go to the market and be offered there for every one's purchase, until the ringing of the bell closed the market. Then only could the retailer buy the remainder. Furthermore, when corn was bought by a baker at wholesale, after the close of the market, every citizen had the right to claim part of the corn for his own use, at wholesale price, if he did so before the conclusion of the bargain; reciprocally, every baker could claim the same, if the citizen purchased corn for reselling it. In nearly all mediæval cities of Middle and Western Europe, the crafts gilds used to buy, as a body, all necessary raw produce, and to sell the produce of their work through their own officials; while all the merchants of a given city were considered abroad as responsible in a body for debts contracted by any one of them: the whole city being as well responsible for the debts of each one of its merchants.

From this and other equally indisputable facts, M. Kropotkin argues that the mediæval city was not simply a political organization for the protection of certain political liberties; that it was an attempt at organizing, on a much grander scale than in a village-community, a close union for mutual aid and support, for consumption and production, and for social life altogether, without imposing upon men the fetters of the State, but giving full liberty of expression to the creative genius of each separate group of individuals in art, crafts, science, commerce and political organization.

The protection accorded to the market-place, which was held sacred from the early times, gave prominence and dignity to the trading portion of the community; and although, at the outset, every burgher, rich or poor, could make part of the merchant gild, and the trade itself seems to have been carried on for the entire city by its trustees, the gild gradually became a sort of privileged body. It jealously prevented the outsiders, who soon began to flock into the free cities, from entering the gild, and kept the advantages resulting from trade for the few "families" which had been burghers at the time of the emancipation of the city from its feudal lord. There evidently was a danger of a merchant oligarchy being thus constituted. But already in the tenth, and still more during the next two centuries, the chief crafts, also organized in gilds, were powerful enough to check the oligarchic tendencies of the merchants.

The craft gild was then a common seller of its produce and a common buyer of the raw materials, and its members were merchants and manual workers at the same time. Therefore, the predominance taken by the old craft gilds, from the very beginnings of the free city life, guaranteed to manual labor the high position which it afterward occupied in the city. An idea of "justice" to the community, of "right" toward both producer and consumer, which would seem so extravagant now, penetrated production and exchange. The tanner's, the cooper's, or the shoemaker's work was to be "just," and "fair." Wood, leather or thread, which were used by the artisan were to be "right;" bread was to be baked "in justice," and so on. This language, which would seem affected and unnatural, at the present time, was then sincere, because the mediæval artisan did not produce for an unknown buyer, or to

throw his goods into an unknown market. He produced for his gild first; for a brotherhood of men who knew one another, knew the technics of the craft, and, in naming the price of each product, could appreciate the skill displayed in its fabrication or the labor bestowed upon it. Then the gild, not the separate producer, offered the goods for sale in the community, and this last, in its turn, offered to the brotherhood of allied communities those goods which were exported, and assumed responsibility for their quality. With such an organization, it was the ambition of each craft not to offer goods of inferior quality; while technical defects or adulterations became a matter concerning the whole community, because, an ordinance says, "they would destroy public confidence." Production being thus a social duty, placed under the control of the whole *amitas,* manual labor could not fall into the degraded condition which it occupies now, as long as the free city was living.

A difference between master and apprentice, or between master and worker, existed in the mediæval cities from their very beginnings; but this, at the outset, was a mere difference of age and skill, not of wealth and power. After a seven years' apprenticeship, and after having proved his knowledge and capacities by a work of art, the apprentice became a master himself. And only much later, in the sixteenth century, when the royal power had destroyed the city and the craft organization, was it possible to become master in virtue of simple inheritance or wealth. But this was also the time of a general decay in mediæval industries and art.

There was not much room for hired work in the early flourishing periods of the mediæval cities, still less for individual hirelings. The work of the weavers, the archers, the smiths, the bakers, was performed for the craft and for the city; and when craftsmen were hired in the building trades, they worked as temporary corporations, whose work was paid *en bloc.* Work for a master began to multiply only later on; but even in this case, the worker was paid better than he is now paid in England, and very much better than he was paid upon the continent, in the first half of the nineteenth century. In the fifteenth century, a mason, a carpenter, or a smith, was paid at Amiens four *sols* a day, which corresponded to forty-eight pounds of bread, or to the eighth part of a small ox. In Sax-

ony, the salary of the *geselle* (journeyman), in the building trade, was such that he could buy with his six days' wages three sheep and one pair of shoes: all of which facts aid in the proof that, at no time, has labor enjoyed such conditions of prosperity as in the Middle Ages, when city life stood at its highest.

Then, not only many aspirations of modern radicals were realized, but much of what is described as Utopian was accepted as a matter of fact. Oftentimes, the modern reformer is derided when he says that work must be made agreeable, but a mediæval German ordinance declares that *"every one must be pleased with his work, and no one shall, while doing nothing (mit nichts thun) appropriate for himself what others have secured by application and work."* The laborer's "day" was most commonly eight hours long, and the Saturday half-holiday, often considered a modern labor conquest, was, in reality, a mediæval institution. Labor Congresses were also a regular feature of the Middle Ages: especially in Germany, where craftsmen of the same trade, belonging to different communes, came together, every year, to discuss questions relative to their trade; and, in 1572, the Hanseatic towns formally recognized the rights of the crafts to come together at periodical congresses, and to take any resolutions (so long as they were not contrary to the cities' rolls) relative to the quality of goods.

Thus, through the examination of countless municipal documents, merchant and trade charters, and constitutions, M. Kropotkin concludes that the period including the tenth to the fifteenth century may be described as an immense attempt at securing mutual aid and support on a grand scale, by means of the principles of federation and association carried through all manifestations of human life and to all possible degrees. This attempt, the writer declares, was attended with success to a very great extent. It united men formerly divided; it secured them a high degree of freedom, and it tenfolded their forces. At a time when the causes of discord and jealousy were so numerous, cities scattered over a wide continent were ready to confederate for the prosecution of common aims. They fell at last before powerful enemies. Not having understood the mutual-aid principle widely enough, they themselves committed fatal faults. But they did not perish through

their own jealousies, and their errors were not a want of federation spirit among themselves.

From this point M. Kropotkin examines the causes of the decay of the mediæval communes; here again making a point in favor of the *Law of Mutual Support.* He points out that toward the end of the fifteenth century, great States, reconstructed on the Roman system, were coming into existence; that in each region some feudal lord, more cunning, more given to hoarding than his neighbors, succeeded in appropriating to himself richer personal domains, more peasants on his lands, more knights in his following, more treasures in his chest. He had chosen for his seat a group of happily-situated villages—Paris, Madrid, or Moscow—and with the labor of his serfs he had made of them royal fortified cities, whereto he attracted war-companions by a free distribution of villages, and merchants by the protection he offered to trade. The germ of a future State, which began gradually to absorb other similar centers, was thus quickened. Lawyers, versed in the study of Roman law, flocked into such centers; a tenacious and ambitious race of men issued from among the burgesses, who hated equally the arrogance of the lords and what they called the lawlessness of the peasants. The very forms of the village-community, unknown to their code, the very principles of federalism were repulsive to them as "barbarian" inheritances. Caesarism, supported by the fiction of popular consent and by the force of arms, was their ideal, and they worked hard for those who promised to realize it.

The Christian Church, once a rebel against Roman law, and now its ally, worked in the same direction. The peasants, whom the cities had failed or refused to free, on seeing the burghers powerless to put an end to the long wars between the knights—which wars they had so dearly to pay for—now set their hopes upon the King, the Emperor or the Prince; and while aiding them to crush the great feudal owners, they aided them to constitute the centralized State. Powerful governments now appeared; and the cities were forced to resist, not only loose federations of lords, but strongly organized centers, which had armies of serfs at their disposal.

The worst evil, M. Kropotkin says, lay in the fact that the

growing powers found support in the divisions which had developed within the cities themselves. He criticises the fundamental idea of the mediæval city as too narrow and exclusive. He insists that *mutual aid and support* can not be limited to a small association; that they must spread to the surroundings of the association, or else the surroundings will absorb the association itself. He further comments that the cities did not receive the peasants and artisans who gathered under the protection of their walls as so many aids to the body politic, but, unfortunately, traced a sharp division between the "families" of old burghers and the new comers. For the former, all benefits from communal trade and communal lands were reserved, and nothing was left for the latter but the right of freely using the skill of their own hands. The city thus became divided into "the burghers" or "the commonalty," and "the inhabitants." The trade, which was formerly communal, then became the privilege of the merchant and artisan "families," and the next step—that of becoming individual, or the privilege of oppressive trusts—was unavoidable.

The same division took place between the city proper and the surrounding villages. The commune, in many cases, had tried to free the peasants, but the wars became contests for freeing the city itself from the lords, rather than for freeing the peasants. The lord retained his rights over the *villeins,* on condition that he would molest the city no more, and would become co-burgher. But the nobles "adopted" by the city, and residing within its walls, simply carried on the old war within the very precincts of the city. They disliked to submit to a tribunal of simple artisans and merchants, and fought their old feuds in the streets. Each city had now its Colonnas and Orsinis, its Overstolzes and Wises.

Here, making a point which he never fails to press when possible, Prince Kropotkin declares that the greatest error of most cities was to base their wealth upon *commerce* and *industry* to the neglect of *agriculture.* The estrangement of so many from the land drew them into a policy hostile to the land, which became more and more evident in the times of Edward the Third (1327-1377), the French Jacqueries (1356), the Hussite wars (1419-1485), and the Peasant War (1618-1648) in Germany. On the

other hand a commercial policy involved them in distant enterprises. Mercenary armies began to be kept for colonial wars, and soon for local defense, as well. Loans were contracted to such an extent as totally to demoralize the citizens. The division into rich and poor grew deeper, and, in the sixteenth century, in each city, the royal authority found ready allies and support among the poor.

To these causes, M. Kropotkin adds one greater, in his estimation, than all others, which led to the decay of communal institutions. Such cause was the gradual modification of the ideas and principles which created them. Self-reliance and federalism, the sovereignty of each group, and the construction of the political body from the simple to the composite, were the leading ideas in the eleventh century. But the students of Roman law and the prelates of the Church,—closely bound together from the time of Innocent Third—succeeded in paralyzing the idea which presided at the foundation of the cities. They taught from pulpit, bench and chair that salvation must be sought for in a strongly centralized State, placed under a semi-divine authority; that *one* man can and must be the savior of society, and that, in the name of public salvation, he can commit any violence.

In the fifteenth century, the Roman idea was victorious. When the people revolted, it no longer had constructive ideas. No fresh conception rose from the movement.

"And yet," the essayist writes in ending his chapter upon the mediæval city, "the current of *mutual aid and support* did not die out in the masses. It continued to flow, even after that defeat. It rose up again with formidable force, and kept its existence even after the masses, having failed to realize the life which they hoped to inaugurate under the inspiration of a reformed religion, fell under the dominion of autocratic power. It flows still, and it seeks its way to find out a new expression which would not be the State, nor the mediæval city, nor the village-community of the barbarians, nor the savage clan, but would proceed from all of them, and yet be superior to them in its wider and more deeply humane conceptions."

I. S.

Book Reviews

HUMAN NATURE AND the Social Order, by Charles Horton Cooley, instructor in Sociology at the University of Michigan, is a series of studies loosely connected with one another, but all discussing the interdependence of men, and the results which develop from their mutual companionship. The work may be described as a note-book for students, in which more or less detailed observations are recorded, to aid in the proof of points which seemingly have long interested the author.

Dr. Cooley opposes the theory that society and the individual have separate and conflicting interests. He insists that neither is, in any sense, the antithesis of the other, but that "the two have always existed side by side as complementary aspects of the same thing" and that "the line of progress is from a lower to a higher type of both, not from one to the other." In proof of his repeated statement that no separation exists between the individual and society the writer cleverly adduces the case of Thoreau, of whom he says: "He took to the woods and fields, not because he lacked sociability, but because his sensibilities were so keen that he needed to rest and protect them by a peculiar mode of life, and to express them by the indirect and considerate method of literature."

The writer devotes much space to tracing the emotions and sentiments up to their source in the inter-relations of men. He minutely investigates love, ambition, the religious impulse, and conscience. Heroism he regards as a habit, and maintains that an individual does an heroic deed, rather than break through the feelings and impulses which he has acquired by association. In this connection Dr. Cooley quotes from M. Guyau, who, in his "Sketch of Morality," holds that the sense of duty is, in one aspect, a sense of power to do things, and that this power tends in itself to create a sense of obligation. We can, therefore, we must. The words of the French author, beautiful as they are, clothe a thought as exquisite as themselves. "Charity," he says, "is one with overflowing fecundity. It is like a maternity too large to be confined within the family. The mother's breast needs life eager to empty it; the heart of the truly humane creature *needs* to be gentle and helpful to all." And here Dr. Cooley paraphrases the meaning of the French author when he says that "the young man is full of enthusiasm; he is ready for any sacrifice because, in point of fact, it is necessary that he should sacrifice something of himself to a certain extent; he is too full of life to live only for himself."

Thus, as a logical consequence, Dr. Cooley ascribes all actions, even those of apparent self-sacrifice to self-interest; asserting that "the least selfish person derives more satisfaction from the contemplation of his deed than he would have derived from the enjoyment of the pleasure sacrificed."

The effect of a public disgrace upon character is well discussed and shown.

The accused man, according to Dr. Cooley, tends to commit the evil things of which he is accused. He reasons: "As well be hanged for a sheep as a lamb." He sees himself reflected in the opinions of others. He accepts as true the degraded self which exists in the thoughts of others. Extending this point of the argument, the writer shows the value to the individual of being brought into contact with the highest personal ideal possible, and, therein, he judges, lie the benefits of prayer.

Other portions of the book are equally interesting, notably the chapter under the caption "Leaderships or Personal Ascendency." On the other hand, the volume might be criticised as lacking in strict cohesion and co-ordination, and the chapter upon children censured as an argument based upon too restricted observations. [Charles Scribner's Sons, New York. 404 pages. 5¼x8 inches.

"Spirals in Nature and Art," by Theodore Andrea Cook, is a study of spiral formations, based upon the manuscripts of Leonardo da Vinci, with special reference to the architecture of the open staircase of the castle of Blois, France. This small volume is intensely interesting, both in itself, and also as repeating, from an individual point of view, observations upon the genius of Leonardo made by other scholars widely differing among themselves: as for example, the English critic, John Addington Symonds, and the Russian novelist, Dmitri Merejkowski. It was, if we mistake not, Symonds who first pointed out, with all his eloquence, learning and discrimination, the mystery, poetry and science of the spiral line of Leonardo which pervades his work as a painter; whether appearing in the figure-drawing, as in the "Madonna of the Lily," or in the rocks and rivers of the background, as in the "Madonna of the Grotto." It was Symonds who first among English critics divined the power of Leonardo, the dreamer, the seeker, the experimentalist: sketching with vivid words his portrait among the four great draughtsmen of the Italian Renascence. Merejkowski followed and developed the same line of thought: re-creating for us the absorbed, distraught, sad student of Nature and science, making him so vital and human, that, as we read the "Romance of Leonardo," the old master stands among us a living, dominating presence. And now finally comes Mr. Cook's study of the same phase of the great experimentalist, this time presented not solely from the artistic point of view, not pictured dramatically, but expressed in simple terms, and appealing to that impulse toward science which is so strong in every thoughtful person of to-day.

Indeed, as the author relates, the book was conceived in the company of biologists, whose casual remarks suggested the argument which has been developed with infinite patience and skill.

In beginning, Mr. Cook alludes to Michelet's description of Leonardo, as "the Italian brother of Faust," and notes

at length the material facts which, apprehended by him, and independently rediscovered in subsequent times, constitute to-day the greatest triumphs and the most serviceable principles of science: such as the theory of the eye, suggested by Leonardo, furthered by Kepler and completed by Helmholz; the division of animals into vertebrates and invertebrates; the theory of the circulation of the blood, and many specific facts in geology and physics.

Mr. Cook next devotes a considerable section of his volume to spiral formations occurring in shells; indicating with much emphasis the difference between the dextral and the sinistral helix. In this connection, he explains his meaning by many plates showing cross-sections of shells, with their superposed chambers, their beautiful disposition of walls, and their spirals rising round the little pillar (columella), which is the axis and support of the whole. One plate, that of the *scala scalaris,* is especially interesting, when considered in its relations to Mr. Cook's theory. The author first comments upon the word *scala* (a ladder); indicating that the connection between shells and staircases was evidently present in the mind of the scientist who bestowed the name. Then, the essayist has so arranged his illustration that it faces the architectural work, of which, in his opinion, it gave the structural plan. He describes the natural formation in pleasing words which have a convincing strength; saying that "in this shell the mouth or entrance has gradually grown round and round with the growth of the inhabitant, leaving a little colonnette behind it as it moved, until it reached the place which is equivalent to the door of the staircase." The structure placed in comparison with the shell, is an open-air staircase of the old Contarini Palace, at Venice, now, if we mistake not, occupied by working people and not well known to travelers. So set in parallel with the natural growth, it indeed seems its counterpart. The two structures correspond, detail to detail; the staircase having a rising dextral spiral of colonnettes far more satisfying to the eye than the super-imposed open arcades of the Campanile, or Leaning Tower of Pisa.

Another example of the intimate relation between a good architect's plans and the exquisite lines of Nature, Mr. Cook adduces in the stairway called "L'Escalier de la Reine Berthe," at Chartres. This he compares with another shell, the *Mitra papalis,* in which the ascending helix, or spiral line, is traced upon the outside, thus corresponding to the spiral which, in the exterior staircase marks the separation of the storeys; the apex of the shell giving in miniature the irregular cone of the roof of the building, and the darkened door-day of the latter having its correspondent in the shadowy orifice of the shell.

Still treating of these natural productions, Mr. Cook writes much concerning the logarithmic spiral, which represents for him the fundamental principle

of beauty and development. He explains it as the curve of growth-expansion, which is determined in the germ of the plants, in the first spire or volute of the shell, and the first twist of the animal's horn. He here quotes Sir John Leslie, who first defined the logarithmic spiral as the mathematical figure represented by the germ and septa of the nautilus; also, another authority who framed a series of formulae by which to predict the growth-expansion of a shell organism. The spires of the shell were found to increase in breadth in an exact successive series, each one of which was a multiple, in a certain ratio of another. Thus the shell must possess this form and could possess no other, for its spiral logarithmic curve reproduced itself. These mathematical calculations lack an infinitesimal quantity of being precise; or it were simpler to say that no two individual shells are exactly alike. This variation occurring in Nature, is repeated in architecture, in which the departure from strict proportions, constitutes the sign manual of the master, and produces the masterpiece; so achieving the higher beauty which is denied to mathematics. Upon the subject of these deviations, and under the title: "A Vanished Art," Mr. Cook writes the most interesting chapter of his book. He thus comments:

"No one who looks with a seeing eye at the finest of the buildings which Leonardo da Vinci might have known, can fail to detect an intense perception of that difference in detail and harmony in relation to quantities of which Nature is the great exemplar. The "straight lines" of the Parthenon are in reality subtle curves, and recent investigation has detected a similar delicacy of constructive measurement in the great Gothic cathedrals. . . . The eye is even more influenced by things which are usually "unseen," than by things which are "obvious;" and it is of the essence of Beauty that her origin and cause are hidden from those unworthy to appreciate it. . . . These constructive refinements died out, not merely because no record existed of them, but for the far more vital reason that the public eye was no longer delicate enough to appreciate them; though, as a matter of fact, they are the real cause of beauty in the finest of our old surviving buildings, which owe their charm not merely to the kindly hand of time, but to the deep-laid skill of their builders. . . . In these days, division of labor has lowered the capacity of the individual artisan; and machine-made work, accustoming the eye to inartistic uniformity of ornamental detail, has also destroyed its grasp of delicate structural effects. In the old cathedrals, the mason and architect, the artist and the artisan, were one."

Farther on, describing the refinement of deviation occurring in the masterpieces of architecture, Mr. Cook writes:

"The straight lines of the Parthenon façade which were intended to correspond, deviated in the entire length as little as the fiftieth part of an inch; . . . . the piers and upper walls of the

nave of St. Mark's, Venice, lean outward to an extent of eighteen inches from the perpendicular, on each side. . . . The Campanile of Pisa is the most direct and daring avoidance of accuracy in construction that can be adduced. It is exaggerated, and therefore fails where the more delicate effects of the Parthenon succeed, but its very conspicuous qualities give a clear example of that intentional mystification by which the old builders strove to get a look at life, of that nature which never grows by rule, of those principles of growth which have brought the *Nautilus* so near to the logarithmic spiral, without exactly reproducing the mathematical curve. . . . The Leaning Tower, as Goethe suggested, may have been built to attract the spectator's attention from the straight shafts which marked the houses of the nobles, and which, according to the testimony of the period, numbered ten thousand."

The spiral deviation, productive of beauty and originality, Mr. Cook observes also in old streets; refusing to believe that these were so twisted for purposes of easy defense, or that the houses grew up at haphazard. He traces also in them the "logarithmic spiral," as the principle of organic growth and life. He extends his argument still farther; writing that "when the divergencies in buildings and in the laying out of streets were almost forgotten, the principle that underlay them survived in that more intimate form of architecture, which is furniture and domestic decoration. In the best periods of Chippendale or Hepplewhite, or Sheraton, each step in a staircase is gently bowed outward, or given a waving line; the walls of the best rooms are given slight curves horizontally as well as vertically; subtle inequalities of feeling exist in settle, chair and screen. But the modern "decorator" seems so fond of Euclid, that the joys of the rectangle and the parallelogram have absorbed the charms of Nature. He forgets that even so common an object as the human face has two sides which are quite different, the one from the other."

From this point, Mr. Cook proceeds to prove that Leonardo lived at a time when those artistic principles of asymmetry were still in force; that he was a student who observed that the *divergencies* of Nature were even more important than her reproductions; and that he choose sometimes the great, sometimes the small, creations of the Great Mother, as the inspiration of his own infinite genius.

Having dwelt long upon the left-handed quality of Leonardo's drawings and given illustrations of sinistral or leiotropic shells, which correspond in Nature to the left-handed characteristic of the human being, Mr. Cook shows upon one page the great open air staircase of the castle at Blois, and, facing it, the section of a Mediterranean shell, the *Voluta vespertilio,* which, he believes, served as the model for the structure, whose external lines correspond to the outside of the shell, while the internal

spiral reproduces the helix (spiral thread, or screw) on the columilla. Following the parellel which he gives with much detail, both by illustration and convincing testimony, Mr. Cook almost succeeds in proving by circumstantial evidence that Leonardo was the architect of the staircase, which may justly be ranked as one of the structural wonders of the world.

Altogether, the small volume, "Spirals in Nature and Art" is a mine of wealth in suggestiveness. It remains, at the same time, conservative in statement, and can no wise be classed as a vagary of speculative thought. [E. P. Dutton & Co., New York, 1903. Illustrated. Pages, 190. 5¼x8 inches.

"More Baskets and how to Make Them," by Mary White. This is a practical manual by the author of a preceding volume, "How to Make Baskets," which has obtained a wide reading among those devoted to a now popular handicraft. In her preface, the author states a number of interesting facts, among which may be quoted: "Basketry has proved itself. In schools and social settlements one notes the contrast between the beginner's mats and baskets, loosely woven and crude in form, and the graceful shapes and solid weaving of experienced young craftsmen. A well-made basket shows more than dexterity and skill: it stands for patience and application, and has the value of all good work."

The book commends itself as an advocate of the useful, since it treats largely of the production of articles of real service, such as rush seats, raffia and palm-leaf hats, hanging baskets for growing plants, and other practical household uses. It contains plain directions how to prepare material, and illustrates, by picture, technical processes, such as the management of straws, the designing of centers, and the composition of dyes.

The chapter entitled "How to rush-seat chairs" is, perhaps, the most valuable of the book, in view of the enthusiasm now felt for the things of our great-great-grandparents's times. The processes as here given, seem to be derived from those employed by the old New England craftsmen, whose good deeds survive them, as many of us have had occasion to note, while summering on some old homestead.

Very attractive also is the section devoted to hanging baskets, which contains a number of illustrations of coverings for plant-jars and flower-vases, to be made from knotted raffia, or open-meshed weaves of rattan. Indeed, no one can look at the illustrations of these graceful forms, and imagine them with the added color of reed or raffia, without wishing to make, or, at least, to possess their similars.

The book closes with a short chapter upon dyes, materials and methods, which although not usually employed in this branch of textiles, yet offer excellent possibilities of service and beauty. Altogether, the little volume will go far to-

ward proving that the uses of basketry are as yet half unknown and undeveloped; and that this handicraft might serve among us a purpose similar to that fulfilled by vases among the ancient Greeks, for whom these beautiful fictile objects represented an important part of our modern household belongings. [Doubleday, Page & Co., New York, 1903. Illustrated. 157 pages. 5x7½ inches.

"THE SPIRIT OF THE GHETTO," by Hutchins Hapgood, is a member of a large class of studies and sketches which have been evoked by a great prototype: Zangwill's "Children of the Ghetto," compared with which these afterthoughts seem somewhat imitative and weak. Still, Mr. Hapgood's book has ample reason for existence. It describes the city wilderness lying on the east side of New York, and contains intelligent comments upon the Yiddish drama. And anything from Leroy-Beaulieu's "Israel among the Nations" down to the slightest accurate sketch which deals with Hebrew history, life and characteristics, is valuable as an enlightening document upon those who are certainly the chosen people of God. [Funk & Wagnalls: New York and London. Illustrated. 312 pages. 5¼x7¼ inches. Price $1.35.

"WHAT IS ART?" is the title of a small volume of condensed thought written by Count Tolstoi. It has been called by a critic the most interesting work on the Ideal in Art produced within a long period. But this is not true, for the reader who wishes to instruct himself, and who would better turn to the forceful style and the clear classification of Taine.

The volume deals with those arts which the Russians best understand: with music and with the novel which is to them of such absorbing and vital importance. It condemns Richard Wagner and his admirers in the following passage descriptive of a performance at Bayreuth:

"I watched the public at the representation at which I was present. The people who led the whole public and set the tone for it were people who were already hypnotized in advance, and who submitted anew to the familiar hypnotic influence. These people, being in an abnormal condition, were in perfect ecstasy. Beside this, all the artistic critics, devoid of the power of being affected by art, and therefore always especially valuing productions in which it is all a matter of reason, such as an opera of Wagner's, also profoundly approved of a production which gave them abundant matter for argumentation. And after these two sections of people went that great city crowd, with its corrupted and partly atrophied capacity for being affected by art, and its indifference toward it, with the rich people and Maecenases at its head, always, like bad hounds, following those who express their opinions loudest and most decidedly."

It is indeed melancholy to hear such a judgment proceeding from such a source.

But with age Tolstoi's powers are ebbing, and his enthusiasm growing cold. It is also just to acknowledge the great learning shown in this volume as a capital amassed in the youth of the great writer, and which is another proof of the assimilative power of the Russians, before cited in the case of Prince Kropotkin. [Henry Altemus: Philadelphia. 298 pages. 4x6¼ inches.

Our exchange magazines for May contain numerous articles of special interest to readers of The Craftsman. Prominent among these is the House Beautiful, whose table of contents promises much and fulfils more; its articles on "Chippendale's Chairs" and "Concerning Piano-Cases" offering much valuable information in a very agreeable form. In the Review of Reviews there is found a timely paper, accompanied by many good illustrations, upon the "Louisiana Purchase Exposition." The Reader offers a portrait of Charles Wagner, the protestant pastor of Paris, who is at present so great a power for good in the French capital, and whose writings are so extensively influencing the thought of his nation. In the Chautauquan, Mrs. Rho Fisk Zueblin continues her serial contributions upon the Arts and Crafts movement; devoting her attention, this month, to the "Education of the Producer and the Consumer." The Photo-Era has as its initial article, "the Forums of the Peasants," which, most readable in itself, is further heightened in interest by the insertion of charming little pictures. The Pilgrim, under the caption "Interior Decoration," by James W. Pattison, offers extensive and valuable notes upon the New Art as understood and practiced in Germany. The Churchman, in the "Story of the Birth of New York," shows quaint drawings of the old city which really justify its name of New Amsterdam. Finally, Enterprise gives a short but instructive account of "Glass Manufacture on the Pacific Coast." Other magazines of a more eclectic character and, for the most part, of wider circulation, present a profusion of reading-matter suited to the general reader. But the articles which are here mentioned appeal to the craftsman or the specialist, and have, therefore, been chosen to the exclusion of other fine material and well known names of authors.

EXTRACTS FROM THE TITLE-PAGES OF SOME CURRENT PERIODICALS.

Kindergarten Magazine:

"Society and Its Children," William M. Salter.

Handicraft:

"The Museum and the School," C. Howard Walker; "Coverlid Weaving," Gretchen M. Bayne.

Applied Arts Book:

"Basketry in the Public Schools," Lina Eppendorf; "Practical Construction in Figure Drawing," Philip Hale; "The A. B. C. of Surface Design Repeats," Harold H. Brown.