The craftsman. Vol. III, No. 6 March 1903

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Cover page
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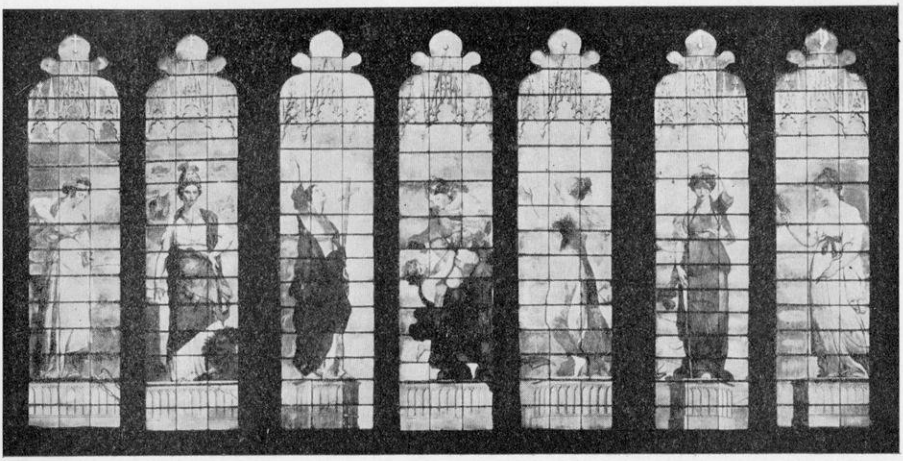
available

All the revolution that mankind is yearning for is just this: to make men look in the direction of their work, to emphasize service and not wages, to ask How much good will it do? and not Does it pay?

"Swords and Ploughshares"
Ernest Crosby



Illustrations I, II, III, IV (refer to page 341)

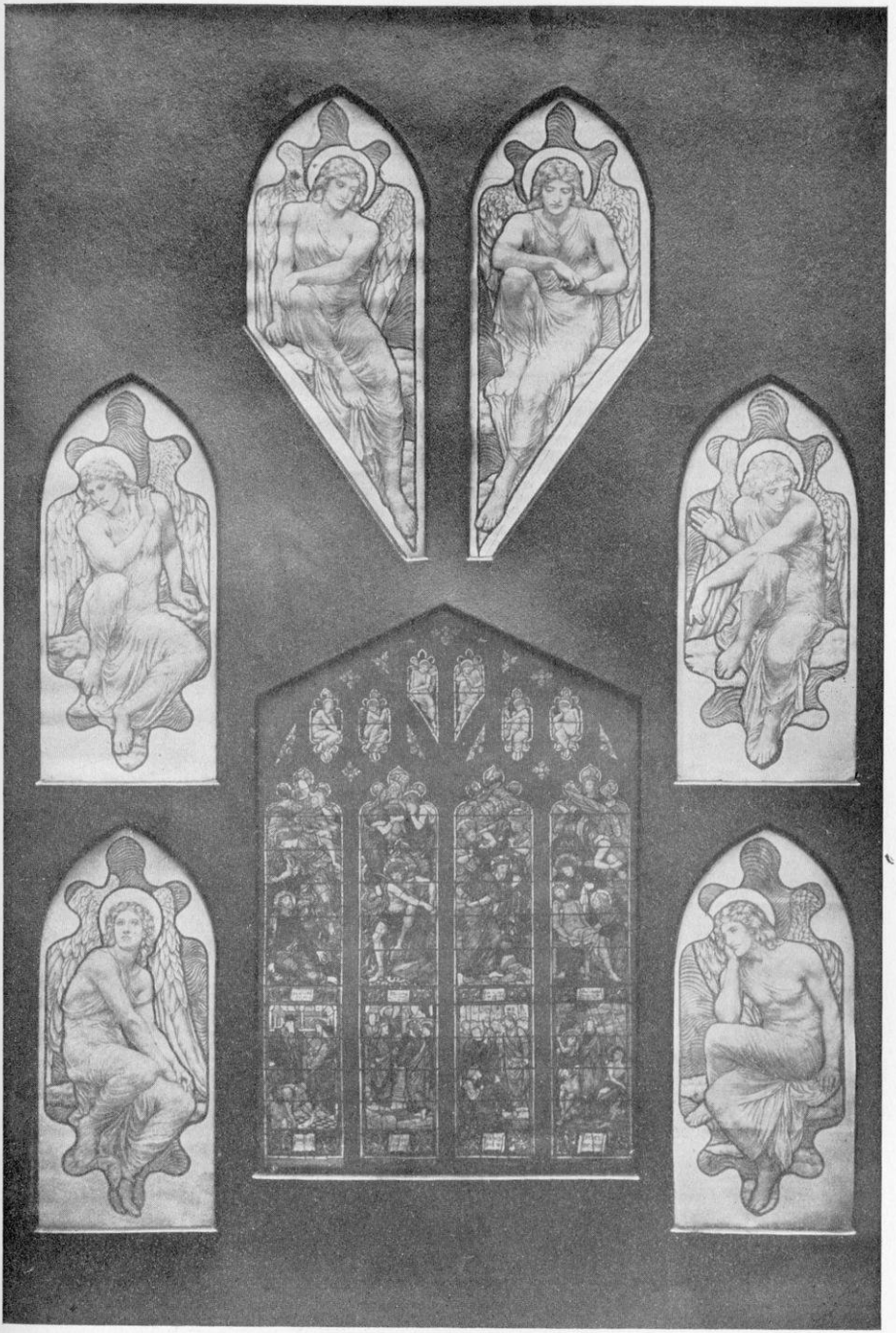


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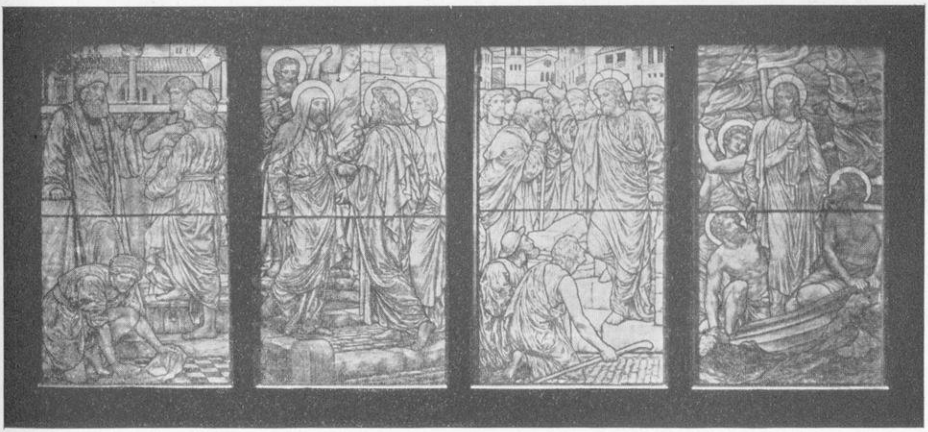
Illustration VI (refer to page 341)



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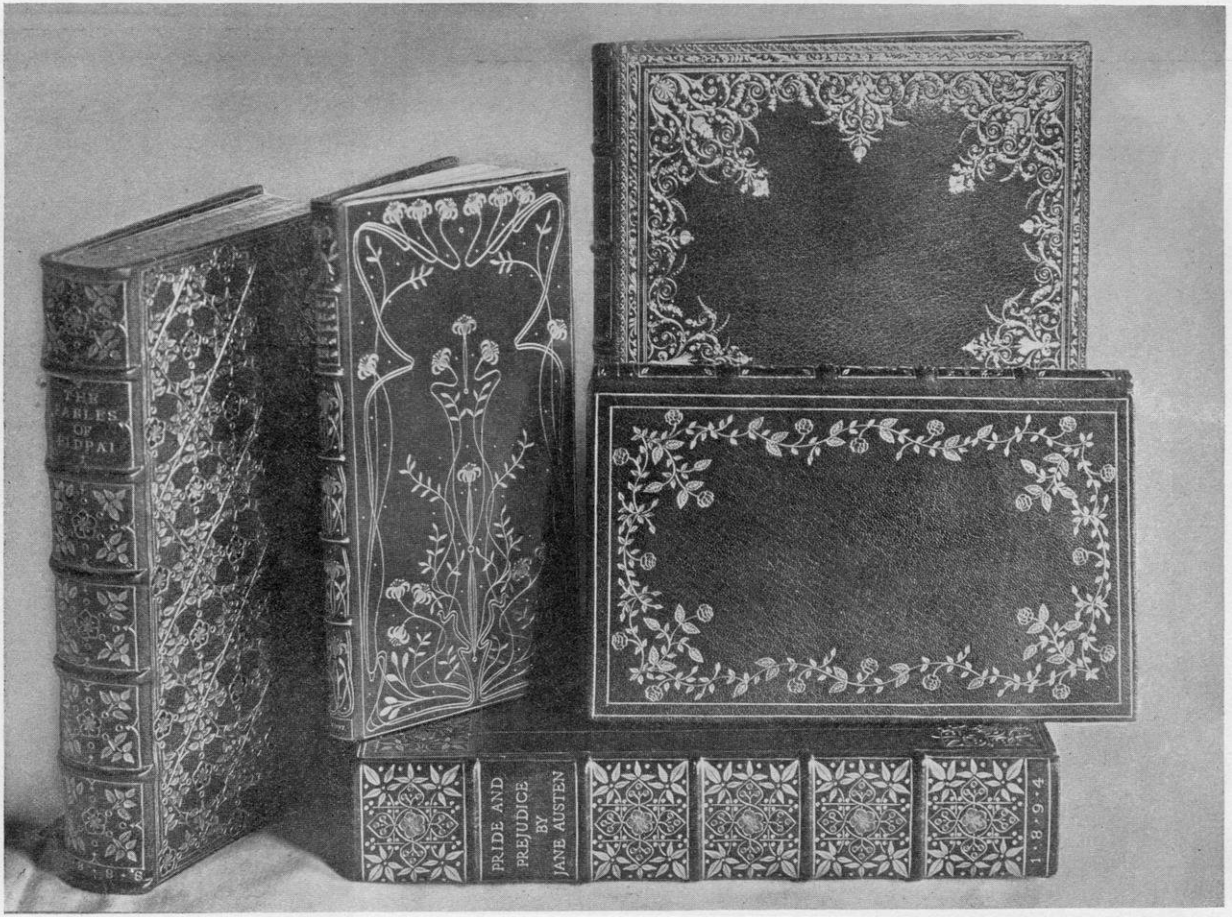
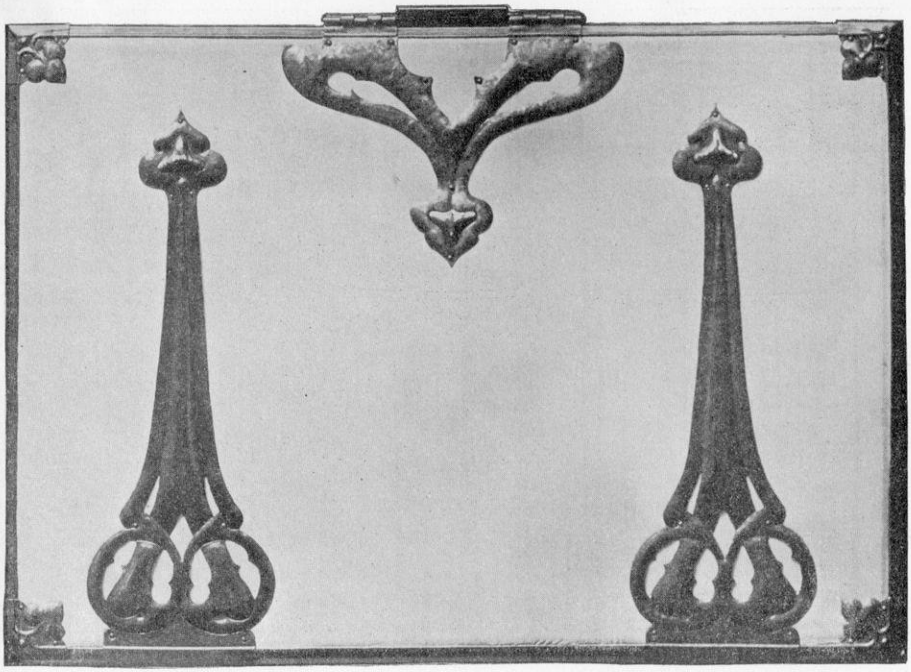
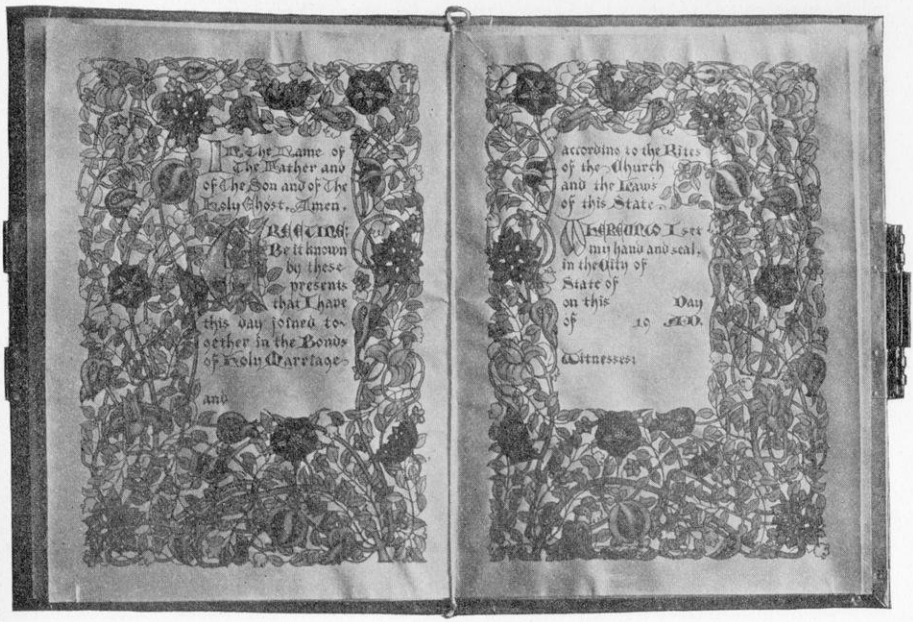


Five rare examples of book binding, from the Arts and Crafts Exhibition, Minneapolis (refer to page 373)

Photograph by A. S. Williams
Minneapolis



Cover of Marriage Book: white leather, brass trimmings



Illuminated pages from Marriage Book
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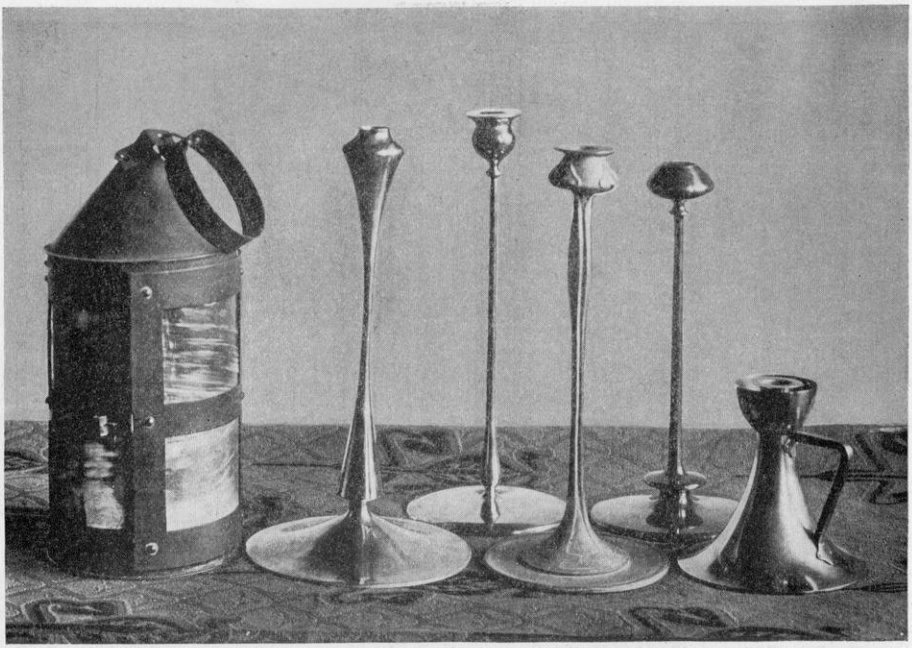
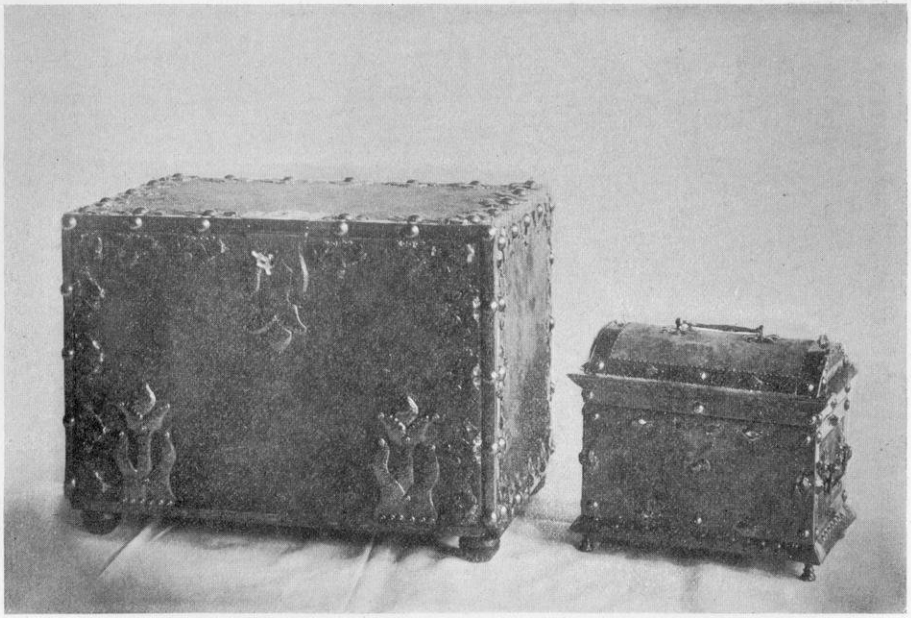
Designed by Frederick Eaton, California
Photographs by A. S. Williams
From Arts and Crafts Exhibition, Minneapolis



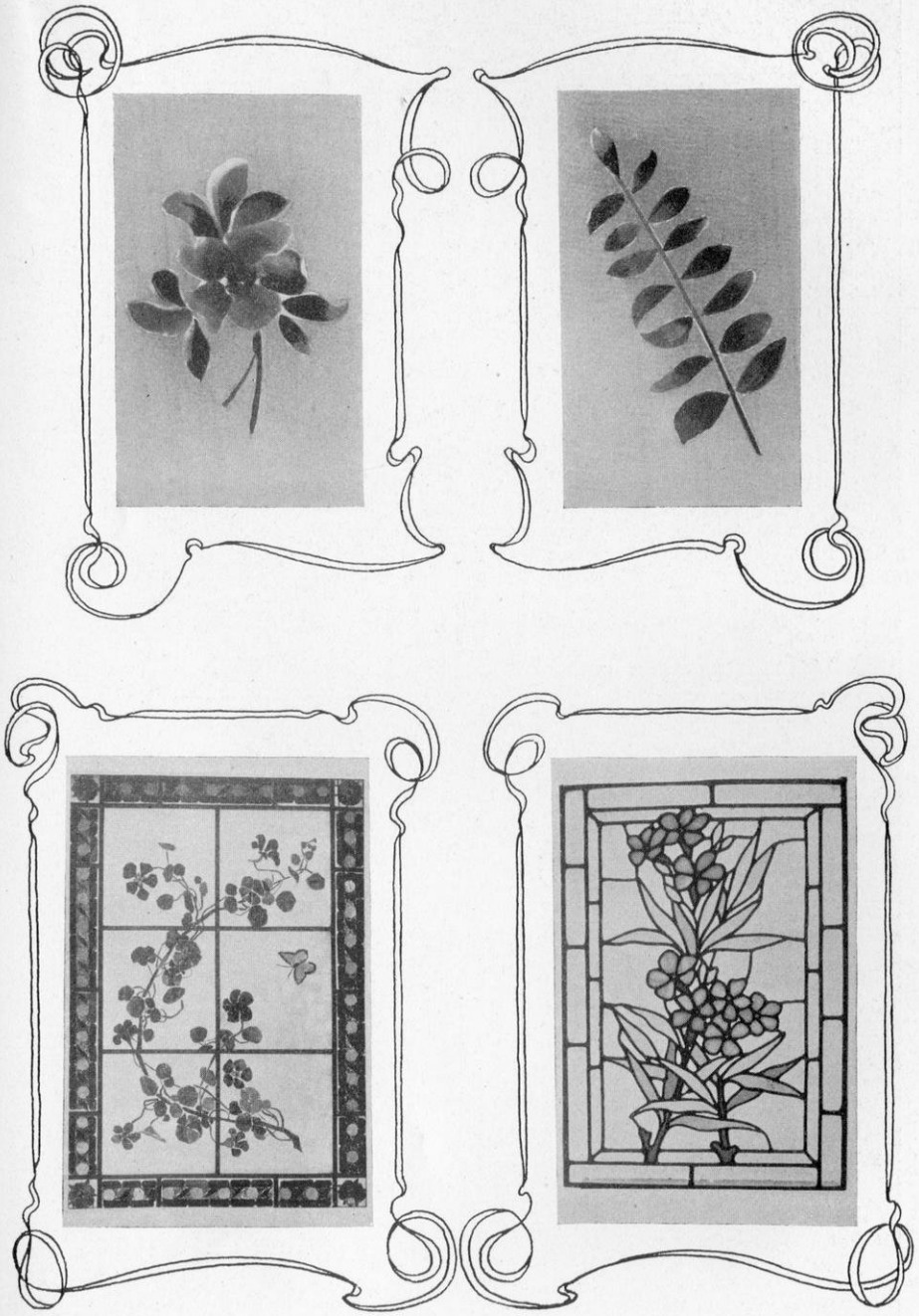
Horn Lantern and group of brass candlesticks
(refer to page 373)

Designed by Mr. J. R. Jarvie, Chicago
Photograph by A. S. Williams
From Arts and Crafts Exhibition, Minneapolis



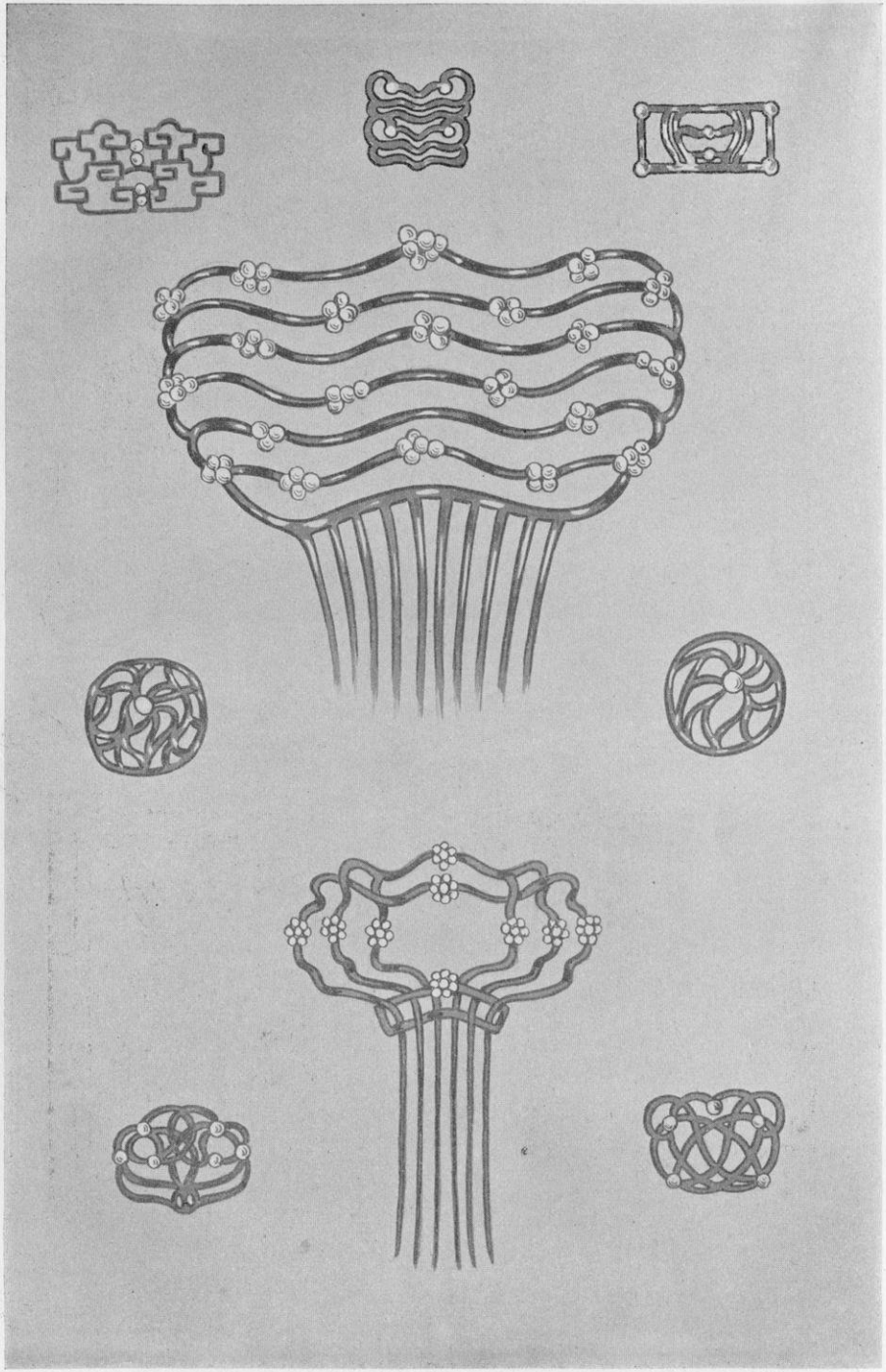
Two Chests: leather, brass trimmings set with semi-precious stones
(refer to page 373)

Designed and made by Frederick Eaton, California
Photograph by A. S. Williams
From Arts and Crafts Exhibition, Minneapolis

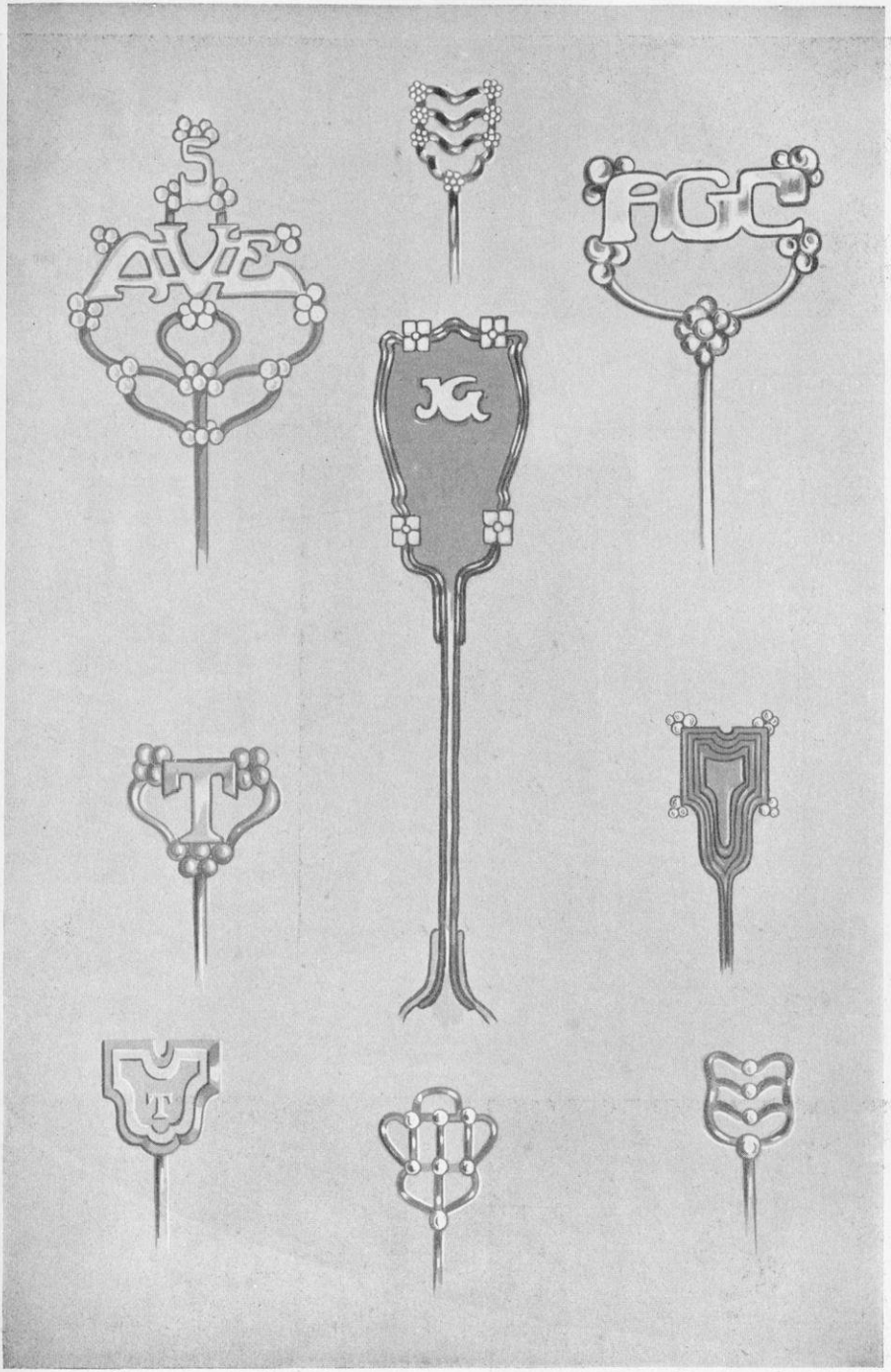


Specimens of Art Glass (refer to page 378)

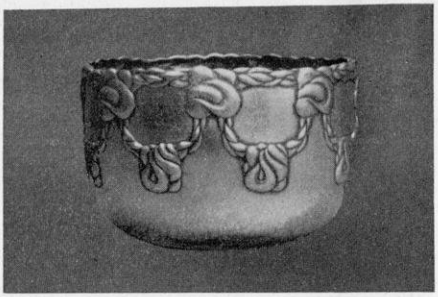
By Alfred H. Freeman

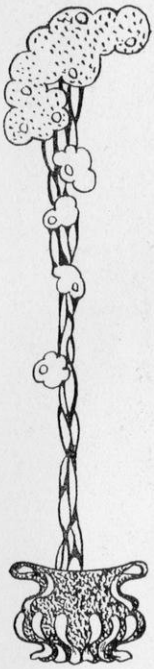


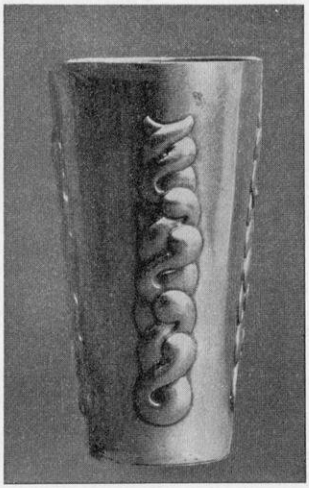
Heads for Spoons, Hair Combs and Brooches (refer to page 379) Designed by Frederik Hegel

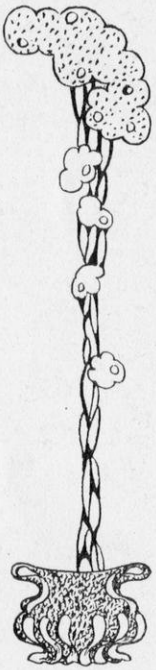


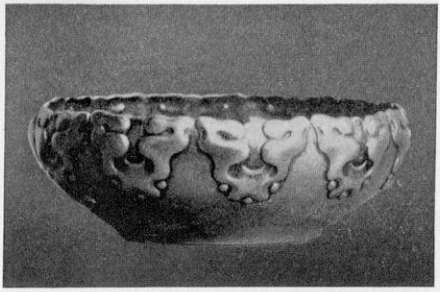
Heads for Spoons, Hair Combs and Brooches (refer to page 379) Designed by Frederik Hegel

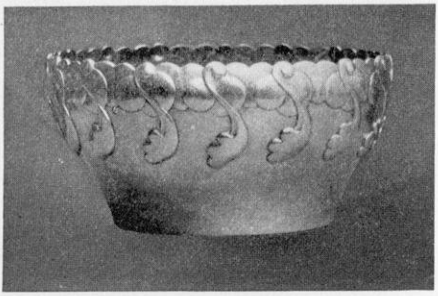












Silver Cup and Bowls (refer to page 379)

Designed by Frederik Hegel

Joy in Work

In her workshop Nature stands,
Busy with her artist hands,
Shaping for her own delight
Things that ravish sense and sight.

Forth they go, her children all;
And their happy looks recall,
As they deck the tasteful earth,
How love and joy were at their birth.

We must stamp that trade-mark, too,
On each bit of work we do;
And love of all we can create
Supplant the drudgery of hate.

Use in beauty, joy in work,
Pride that will not stoop to shirk,
Conscience that sustains the pride—
These let us scatter far and wide!

Till at last in fellowship
We forget the master's whip,
And join with ant and bird and corn
In hailing every work-day morn.

Ernest Crosby

THE CRAFTSMAN

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One Plate—Illustrating "Fusion versus Leadline"
Three Plates—Illustrating "A Danish Designer"

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Foreword

AT the present season, when the births of our two greatest patriots, Washington and Lincoln, have just been celebrated, it is fitting to consider with more than usual earnestness the means of furthering our national progress. It is not to be denied that among the most effectual of these means are art, which uplifts and inspires, and industry, which blesses equally "him who gives and him who takes."

The Craftsman for the current month, therefore, presents a series of articles upon American artists and craftsmen and their accomplishments. In one case, the paper has been written by the worker himself, whose name is synonymous with ability, influence and integrity. His words have the weight which experience and success alone can give.

Again, since The Craftsman stands pledged to the support of art allied to labor, it is intended by the Editors that each issue shall contain writings upon the present or the past status of the working classes, as well as expressions of thought devoted to plans for improving the condition and increasing the pleasure of the world's producers.

Included within this class of articles is the elaborate study by Ernest Crosby, upon the artisan in the Elizabethan period, which was promised for the present number, but of which considerations of space have deferred the appearance until the April issue. In its place is printed a tribute to the influence of the Jews upon manual training, by the Rabbi Joseph H. Leiser, who will be remembered for his valuable paper upon "The Jew as a Craftsman."

The following and April number of the magazine will contain several most interesting studies upon landscape gardening, written by men of position in their profession, and accompanied with pleasing illustrations; also, a comparison between two standard criticisms upon the life and work of William Morris.

For May it is purposed to provide a number especially interesting to craftsmen and art-artisans, by offering a fully illustrated report of the Arts and Crafts Exhibition, to be held from March 23 to April 4, in The Craftsman Building, Syracuse: at which time an effort will be made adequately to represent the progress which has thus far been made in all "the lesser arts of life."

Life is always difficult in proportion to its intensity and reality. In the formulas of the philosophers the problem seems clear and easy, but when we turn to actual living the theory often proves barren and inapplicable. Life is made of a few simple elements: as the physical existence depends upon fresh air, sunshine, simple food and exercise, so the deeper life is made of love, work, hunger for ideals, appreciation of beauty, desire to know the truth. Yet as no two leaves upon a tree are the same, so each life is a new equation of old and simple forces. It is this that gives the perennial freshness and interest to life. It is this that makes the problem of living one to be solved only by practice, while all that philosophy can accomplish is to present the universal principles out of which life is made.

A Book of Meditations
Edward Howard Griggs

Trinity Church, Boston, as a Monument of American Art : : : : : Irene Sargent

AS by the irony of Fate, the Puritan city of America possesses what must always rank as the most important monument of ecclesiastical art in our country; since the edifice in question marks a new era in our national development of architecture and of the use of colored glass as a decorative agent. As is not infrequently the case with epoch-making works of art, Trinity Church, Boston, owes its being to a great, temporary misfortune, and a large share of its beauty to an accidental discovery. This statement, seemingly careless, can be justified by explanation. The great Boston fire of 1872 placed an extensive and valuable area of the city under an absolute disability of long duration. Old barriers between the commercial and the residential districts fell, and the compressed business life burst forth at unexpected points. A new quarter developed on the made lands to the southwest, which had indeed existed before the fire, but whose final character was assured by public needs and demands arising out of the appalling municipal disaster. Opportunity which had been denied to architects by the tortuous street lines, the steep ascents and the narrow limits of the old city, were now abundantly offered to the artist who should arise competent to employ the means at hand. The man did not fail the occasion, when Richardson, the architect of thorough training, great strength, originality and adaptability, gave the plans for the church which was to renew and modify the building art throughout the United States. He was a genius who accepted the legacy of a long past age, understood the modern uses to which it might be put, successfully allied the principles which he had adopted, to the features borrowed from other periods of art, took into grave consideration conditions of climate, local atmosphere and site: thus producing an unique structure, showing indeed a continuity of tradition and acknowledging its source,—just as a highly developed language keeps in memory the people who first spoke it—but, at the same time, displaying creative force sufficient to provide it with a long existence. The Gallo-Romanesque style, as treated in Trinity Church, was seen to fit the surroundings into which it had

been introduced. The bold, simple outlines of the Richardson structure accentuated the flat site out of which it rose. Its masses, disposed in great blocks harmoniously united, must, it was evident, preserve their striking indivduality, even when a thickly populated area should crowd public buildings and dwellings closely upon it. Its structural material, rich in color, rough in texture, and made further susceptible by the character of cutting to accidents of light and shade, the area and shape of the roofs which offered occasion for the use of a covering which should tell against the clear blue of the sea-atmosphere: all these features justified their existence and made a strong appeal to the artist and to the layman alike. So, within the decade following the building of Trinity Church, Boston, the round low arch, the heavy column, the rough stone fabric of the Romanesque rose East, mid-way and West in the United States, marking its character upon church, town-hall, corporation-building and home. An architectural era, known as the "Richardsonian," began, which, although sometimes expressing itself awkwardly and inopportunely, was yet a period of great artistic progress: sweeping away like a flood, the trivial, inorganic, badly coördinated style which had preceded it, and everywhere rearing the simple, strong and striking structure. As is the way of life and of art, the parent of the "Richardsonian Romanesque" is forgotten by the many, and its degenerate descendants,—for such there are—are often criticised for defects absent in the great original, which is an imposing pile, satisfying the form-sense by its treatment of line and mass, and making a strong appeal to the color-sense, as is required from every successful modern work of art. The beginning of an era is indeed marked in the coördinated stones of this church, and wherever in our country we find traces of the crude, bold Romanesque giving a touch of strength and character to our buildings, whether ecclesiastical, secular or domestic, whether located on sea-board marsh or Mississippi bluff, we recognize the influence of Richardson. Indirectly to him, also, we must attribute that adventurous spirit in architecture, which, as one of its happiest efforts, produced the house of Louis Tiffany, at Madison Avenue and Seventy-Second Street, New York: a building which combines and

harmonizes in a remarkable way architectural elements chosen from widely different styles and countries; making them serve the double end of use and beauty, and perfectly adapting them to modern and new-world conditions; binding together into one organic structure the French *tourelle,* the Italian *loggia* and the Hanseatic League Town roof. Endlessly extended and multiplied, these elements have provided popular enjoyment throughout the country: the *tourelle* being a real "coign of vantage" over the crowded street, since it joins picturesqueness with economy of ground space; the roof pierced with numerous windows serving the same purpose as the *tourelle,* although under different conditions; and the *loggia* increasing the comfort and pleasure of the city residence, while offering possibilities for decorative effects obtainable from no other treatment. Between the house thus skilfully produced and the Romanesque church consecrated by the memory of the great bishop Brooks, there is no apparent connection; yet save for the existence of the church, the house judged by Edmund Gosse to be the finest domestic structure in America would never have been built, and our cities and towns would lack much of that picturesqueness which is dependent upon the variety of sky-line, and upon architecture showing alternate solid and pierced spaces: as, for instance, towers with open arcades, cloisters and porches with heavy semi-circular or depressed arches, and structural material not too highly wrought and polished to resist the beautifying influences of sunlight and shadow, weather and time. The Romanesque movement, begun at the opening of the last quarter of the nineteenth century, is now a subject of historical interest. It may be considered by some superficial observers as a lost artistic cause. But the architect of Trinity built for future generations by creating a structure imposing and individual enough to rise above considerations of style and to become a type in itself. He gave a rightly directed impetus to the building art in America: lifting it and sending it out into untried possiblites. He initiated a movement, containing, as we now see, a valuable and permanent element. He brought into prominence a type of architecture which offered the largest opportunities to decorative artists in glass, in mosaic work

and in mural painting: three superb mediums of expression, in two of which American artists now bear comparison with the highest of their brothers in the Old World.

In Trinity Church the sister and subsidiary arts found their promoter in John La Farge, whose mural paintings and decorative windows, like the structure itself, mark the beginning of an artistic epoch: in mural painting for America, in decorative glass for the world. Through the agency and influence of this single man this modern place of worship has come to fulfil certain of the secondary functions which were performed by the great cathedrals of the Middle Ages, when they were the permanent repositories of the most exquisite productions of all the arts and crafts, when they were open schools, educators of the popular taste, sources from which the imaginative might draw lessons, the inventive genius might receive aid to guide him in his experiments, and the mature artist could gain a knowledge of principles by which to judge his own and his rivals' work.

With the first decorations placed by LaFarge upon the walls of Trinity, began an epoch of mural painting, which, although not yet terminated, has already clearly demonstrated the originality of American art and commanded for our artists world-wide respect and admiration. The work of LaFarge, confided to the care of the sanctuary, has suffered no injury during the quarter century since it was executed, while the nearly contemporaneous work of Hunt upon the walls of the Capitol at Albany, has, long since, ceased to exist; leaving behind no record save such as exists in the *aquarelles* of the Boston Museum of Fine Arts. Within the comparatively short time which has elapsed since the building of Trinity, other structures have arisen, such as the great libraries in Boston and Washington, and the Appellate Court in New York, which are even better adapted than the church for the display of mural decorations, and in these Sargent and Abbey, Vedder, Blashfield, Simmons and Low, have shown qualities which, in all cases, mark them as careful students of the old and supreme masters, and, in some instances, have met the artistic requirements of their times as fully as did the great Italians, who unfolded the history of man

from his creation to his redemption, or who recorded municipal triumphs upon the walls of chapel or palace. Nor would it seem that the American genius for mural painting had, as yet, arrived at maturity. It is, rather, in its youth, daring and tentative, reaching out for remote possibilities, too confident of its power to heed conservative criticism, or to fear a fall into grave error. At all events, it understands the world to which it addresses itself, for it accepts color as one of the most imperative needs and one of the most spontaneous expressions of modern life. The "Abbey red," the Sargent maze of color stand for something beyond parts of carefully planned artistic schemes. They are vibrant with life, feeling and passion. They speak in a language stronger than any that can be composed of words to those who live "the strenuous life." But however far this American development of an important branch of art may go, its beginnings in Trinity Church, Boston, can not be ignored. The prophets, "the woman of Samaria," the "Nicodemus" of LaFarge will always be recognized as the first members of a great series. They are at once intrinsically excellent and historically significant. They are among the treasures of Trinity whose value can not be appraised.

But important as are in this church the mural paintings of LaFarge, his picture windows in the same great edifice rank far beyond them; marking, as they do, what may be termed the opening of the American Revolution in decorative glass. In this art or artistic craft, the first telling success of the master resulted from a discovery made by him in 1870. By this means he learned that the white substance of a certain imitation porcelain, when insufficiently mixed with clay and coloring matter, produced a curious opalescent quality, semi-transparent and of great beauty. Applying this discovery to his work, he composed what artists believe to be the most perfect color-material ever invented. This he did by crushing under heavy rollers sheets of opaline glass containing two or three colors imperfectly mixed: the process being so conducted as to intermingle the separate sheets and colors. This experiment was the inception of the American idea of the decorated window, which later developed into a thing of almost over-

powering beauty. Owing to this accidental discovery and by means of this simple process, glass was produced in such variety of color and with so many gradations and modulations in shades as to include almost every conceivable combination of tints, either those which melt into one another, or those which form sharp contrasts. This discovery placing at the disposal of the artist so infinite a gamut of color, almost entirely removed him from the necessity of painting. He could reinforce or lighten his tones by "plating" with darker, the same, or lighter colored glass. He used the lead line to emphasize the composition, making it, according to his purpose, the "string" or narrow line, the "flat" or wide band, or, again, the diminishing line, in effect like the strokes of a brush. Even the flesh parts he no longer entirely rendered by the use of opaque pigments. These, too, he "overplated:" placing the more vigorous accents on sheets at the back of the window, and painting the more delicate flesh tones at the front. In this device lay one of the greatest successes of the new system, for, the entire subject, save the flesh parts, being translucent, it was essential to preserve the same quality throughout the scheme, and by such means was the desired result secured.

From the examination of these processes and devices it will be seen that the first American efforts in the making of decorative windows were largely confined to extending the gamut of color and to the production of glass with *gem-like qualities.* The first requisite was obtained through the aid of chemistry; the second by cutting or chipping the glass in such a way as to give an irregular, faceted surface, catching the wandering rays of light and equaling the iridescence and brilliancy of old Egyptian and Roman glass, which, up to that moment, had found no rival in these qualities. Still another device was employed artificially to give the modern substance that appearance which mediæval glass has naturally acquired through the operation of time and the stress of weather. Upon the latter substance dust, moistened by rain and dampness, has acted along the lead-lines as a corrosive agent, eating the glass thin in furrows, and leaving it midway in the piece of its original thickness. To this chemical action is due a varied intensity which

makes one of its greatest charms and which, analyzed by the American artist, has been perfectly imitated by him in his effort to leave no instrument or note wanting in his orchestra of color.

Having thus provided himself with a color material perfectly subservient to his command, LaFarge gave to Trinity certain masterpieces of art and craftsmanship. His windows placed side by side with others produced in the Old World, and under obedience to tradition and precedent, attract the most careless visitor and lead him to seek the source of their appealing beauty. The more critical observer yields equally to their charm; finding to his satisfaction that they do not appear as results of accident, when compared with the examples here offered of what has been called "deliberate design."

The English critics and craftsmen can not with justice include La Farge in their strictures regarding American decorative glass, since, equally with Holiday, our own artist, notwithstanding his love for color, strenuous, pure, fresh, rich, insists upon the coördinate importance of form. He does not misapprehend the medium in which he works, after the manner of those painters upon glass whose type is Sir Joshua and for whom the window is but a translucent canvas. Few figures enter into the compositions of La Farge, and they are drawn with sweeping lines, as if quickly conceived, and executed at the moment of inspiration. They are dramatic, yet dignified in action, suggesting the biblical personages of early Italian art, which are themselves reminiscent of classic types. They are Giottesque in spirit, without modern Pre-Raphaelite affectation, and possess the old painter's rapid power of story telling which invigorates the correct French modeling. The drapery falls in heavy folds, conformably to the treatment of the first Tuscan schools, and serving a double purpose: expressing rest, or slow, easy motion, as demanded by the limitations of the glass picture; also, giving direction to the leadlines, and forming a close union between the actual support and the linear composition. The decorative, as distinguished from the pictorial treatment, is carried into the landscape, which is a mere suggestion, and into the accessories which are thoroughly conventionalized. Altogether, it will

appear upon careful study of the subject, that La Farge, as the exponent of a new departure in art, is sane, if not conservative; a respecter of the best traditions, even though he be an inventor and innovator. Indeed, he would be best described as a developer, since he himself has acknowledged that all elements of the modern decorative treatment of glass are found in the painted windows of the thirteenth century, although they there exist "in archaic form." La Farge, a fervent admirer and subtle student of both Venetian and Japanese color, an experimenter in chemical compounds and technical devices, successful far beyond the usual, has not allowed himself to be led astray by his qualities as a colorist. He in no wise resembles Hans Makart, the Viennese painter of gorgeous pageants, who, enamored of his own artistic qualities, like Narcissus of his own beauty, wasted away and died, because of "the pigments which besieged his brain." Contrary to this tendency to exaggerate and degenerate, La Farge has shown the ability to profit by the lessons set by the old artist-craftsmen, and equally to employ the latest advances in science. But always he has controlled his own temperament and qualities, never yielding to the vagaries of passing "fashions in art," or to the caprices of clients. He is, in his work, "without fear and without reproach."

His windows in Trinity, compared with those contained in the same edifice which follow tradition and represent certain schools, are most interesting and instructive if considered singly. Like Richardson's exterior, they form in themselves a study and commentary upon an all-important period of American art.

Upon entering the church, one finds himself in an atmosphere of half-gloom, even if the day be clear and bright. The presence of masses of carven walnut darken greatly the interior, which receives its principal illumination from the dome at the intersection of nave and transept, and its secondary light from brilliantly colored windows piercing, at short intervals, the walls tinted in soft Pompeiian red. The semi-circular apse glows with glass of gem-like brilliancy, figured with scenes depicting the life of the Christ. These windows, twelve in number, are narrow, and terminate in semi-circles conformably to the round arch of the Romanesque style.

They show only the traditional reds, blues and greens: those sharply defined colors which, taken together, form what has been termed by a recent writer, the Gregorian chant of color, as contrasted with the Wagnerian orchestra of subtle, elusive shades set into vibration and music by La Farge.

To the right of the chancel and beneath a Byzantine gallery, appears the small but famous window by Burne-Jones, having for its subject the collection of treasure for the building of Solomon's temple, and which is replete with sentimental interest for the members of Trinity parish; since it is a memorial to the devoted vestryman who saved the records of the church from the great fire of 1872. In this work are found the elements of what may be called the glass revival: an event which was due to the same Pre-Raphaelite influence that gave new force to all the arts and crafts during the active period of William Morris and his friends. The work is plainly of a transition period. The gamut of tones is not largely increased from the one which did service in the olden times, but the colors are differently distributed. The composition is a crowded one, details are rendered literally, a sense of proportion is lacking in the scene, and there are many characteristics of the *glass picture* as distinguished from the *glass window*. Considered from the point of view of color,—that first requisite of a decorative window,—it is even less enamel-like and translucent in effect than the same artist's picture in oils of "King Cophetua and the Beggar Maid," now hung in the Tate Gallery, London.

High in the walls of the right transept of Trinity, the Oudinot windows represent the Resurrection, the Ascension, and the Descent of the Holy Spirit, with the time honored types and symbols of the Roman Church. Their insipid classicism, their white and yellow tones sound a discordant note to the masses of deep emerald green and the ingenuous small-scale figure-drawing of the Pre-Raphaelite windows of the opposite transept, which portray three other great biblical events: the Nativity, the Adoration of the Magi and the Flight into Egypt.

Along the right wall, the lower row of windows forms a series of the Parables, executed by Henry Holiday, the modern English

classicist in the treatment of decorative glass, and an able writer upon his artistic craft. These subjects show a deep understanding of the medium employed: containing few figures in vigorous, restrained action, drawn upon simple backgrounds which recall the rich browns and dull, soothing greens of English landscapes.

All these subjects, French and English as well, are, in varying degrees, *picture windows.* And so considered, they prepare the means for judging La Farge's "Presentation of the Virgin in the Temple," seen high up in the same wall, but toward the rear of the church. For this window sentiment suggested the subject, since the fair woman to whom it stands as a memorial resembled the Virgin of Titian. It remained for a subtle and exquisite art to *translate into glass* portions of the Venetian masterpiece and to compensate for the loss of those portions of the picture which were irrelevant to the purpose of both artist and client. The material produced by La Farge duplicated and even surpassed the palette of Titian. The problem was to apprehend and perfectly to restore the original color scheme, without which the modern rendering would be ineffective, lifeless, full of the faults of the ordinary copy. Those canvases of Titian, of which "The Presentation" is a type, contain masses of crimson and of blue which always bear to each other a certain proportion in quantity, a certain relation in place. They are harmonized with each other and formed into a complicated scheme by means of warm whites, creams, soft pinks and browns, the latter ranging from light chocolate to the dark rich tone of weathered oak. In the part of the picture to be retained in its *translation into glass,* the robe of the Virgin furnished the blue, which, in the translucent medium, seems as if it were mixed with light, and tremulous, and is of that intense hue found in the waves of the Mediterranean. The crimson had to be supplied. It appears in the glass as the drapery of a musician who sits at the base of a sarcophagus, and leans mourning over his lute. Beside giving the necessary color element, this figure has most attractive qualities of design and fitness. It is a bit of Venetian art, recalling the boy musicians of Carpaccio. It does not appear to be a clever, artistic device. It is part and parcel of the work, as if it had been con-

ceived by the same brain and at the same time as the chief figure ascending the steps of the temple. Furthermore, the work as a whole is satisfying and delightful in that no archaism or mannerism thrusts itself upon the spectator, who, thrilled by the gem-like quality of the glass, yields to the exquisite sensation caused by the intricate harmony of ruby, sapphire, and all their attendant colors and shades, supporting and contrasting. Such effect proves that the window meets the requisites and does not exceed the limitations of the medium in which it is executed: in a word, that it is *decorative* rather than *pictorial.* At all events, for one who has drunk in its loveliness, it is a thing too fair to be subjected to artistic dispute, and it remains in the memory like a musical phrase. Nevertheless, this one among the several La Farge windows in Trinity is, perhaps, least characteristic of the inventor and developer, and least appropriate to mark the new departure.

The rôle of an epoch-making work of art is borne equally well by the window in the organ tribune, piercing the west façade, and by another next beyond it in the same wall. The first mentioned is the one so widely noted for its beauty of coloring: containing the figure of the Christ projected against a background of that intense blue which yet has an undertone of green, and was the favorite of Morris and the Pre-Raphaelites. Patient chemical experiments involving a great number of substances (to be accurate: no less than seventeen) produced the material out of which arose a design distinguished for restraint, repose and dignity. And no foreign critic has reason to judge harshly a decorative window so faithful to the best traditions of art and craftsmanship. It is no result of "accident versus deliberate design."

The other window to which reference has been made, has for its subject the "Revelation." It, perhaps, affords the widest range for the colorist, of any religious subject that might be chosen, and no possibility has been neglected in the execution. The opaline glass so closely connected with the name of La Farge here appears as his sign manual, pouring its lambent flame through "the gates of pearl" and the wings of "the angel of the Apocalypse." Great jewels in rich colors burn in the breastplate of "the bride adorned for her

husband," and the brilliancy of their substance has been further increased by the device of breaking the thick glass irregularly with a hammer, so that their fractured edges may catch and play with the light in its passage. The window, at bright noonday, is too enchanting to permit calm judgment, but when coldly analyzed, it proves that American decorative glass is a direct advance upon previous material and craftsmanship devoted to the same purpose. It plays also no insignificant part in the enrichment of an edifice which deserves to be cherished among the greatest historical monuments of our country. The names of Richardson and La Farge should be honored as those of patriots, since art is an integral part of national life.

ARCHITECTURE IS THE PRINTING PRESS OF ALL AGES, AND GIVES A HISTORY OF THE STATE OF SOCIETY IN WHICH IT WAS ERECTED

LADY MORGAN

The Painted Window — *Frederick S. Lamb*

THE craving for variety and novelty is a powerful impulse of the human mind and makes itself especially apparent in the appreciation of works of art. "The greatest work ceases to please after a time and temporary fashion may occasionally lord it over the perennial in taste."

This is true of glass painting as well as other forms of art expression and, in a great measure, explains the variety of styles which we possess. There are few, if any, existing examples of early glass painting and we are forced to rely upon written records for our information. Our supposition must be, in spite of many grandiloquent descriptions, that in general character, painting on glass resembled the work in ornament and figure contemporaneously executed in other mediums. Thus, though our records speak of the glass windows of early basilicas, though we learn that the glass of the fifth, seventh and eighth centuries was considered of great importance and most beautiful, we are forced by comparison with the work in other lines of art expression to the conclusion that all which was then produced would now be regarded as archaic.

The art of the glass painter was at first that of the glazier, and the brush was used but to supplement the line existing in the lead. No one questions the antiquity of glass, but, unfortunately, so few trustworthy examples exist as to make it impossible to speak with authority of its quality. It is not until the tenth or the eleventh century that we find fragments sufficiently well authenticated to be accepted, without dispute, as still existing in their original condition. Many examples have been so mutilated in their restoration as to make them valueless as bases upon which to found a theory; but such early specimens as do exist, simply confirm the theory already stated: that art expression in the glass of these periods adopted the same methods that were used in other mediums.

The glass painter of this day relied more upon the selections of his glass and upon juxtaposition of color for his effects than upon his brush. Careful study of the leadline and the armature were his main reliance. His other work was but an added incident, considered of minor importance. Black and white painting was of little value in his mind. He was a colorist, pure and simple, and seemed

to regret the necessity of detracting from the beauty of his glass by the enforced use of pigment.

As we follow the history of glass painting from the earliest remaining examples to the most recent, we find the same cycle of changes that exists in all other arts. We find also that the most careful research brings us back to the conception of the beginning, and that we feel to-day the same desire to paint on colored glass with a use of pigment as restricted as possible.

The work of the twelfth century undoubtedly drew its inspiration from the Byzantine school and founded itself in a great measure upon the work of the Mosaicists. In fact, the early glass workers at Chartres came from Italy and transcribed in glass the designs and traditions which they had employed in mosaic itself. So that the window glass simply became but an addition to the wall expression as it had developed up to that day.

The beauty of the glass work at this time was much enhanced by the incidental crudeness of the manufacture of the glass itself. The limitations of the material, controlled, in a measure, the design; and the roughness of the glass surface gave a broken and diffused light, the loss of which, in the later perfection of glass manufacture, has not been recovered to this day. The necessity of supporting these minute particles of color developed the armature, so beautiful in early glass and so necessary to the style of this period.

Time also was a factor in the beauty of the work. Anyone gazing at the remarkable examples of the later twelfth and early thirteenth century glass must realize that they were labors of love, unhampered by lack of time or the desire for hasty completion which came at a later date.

The discussion will probably never end as to whether much of the beauty of this glass may not be attributed to the limitations set to the painter by his material. The fact, however, remains that with the improvement in the manufacture of the crude material, there began a certain decadence in the art of glass painting. As the sheets of glass became larger, the brush assumed a more important rôle and the painter was tempted to strive for effects, which, under

earlier restrictions, he would not have attempted. The earlier work at Chartres, a few beautiful examples still remaining at Canterbury, and even the questionable restorations of glass at the Sainte Chapelle, give but a faint idea of the glory of the glass painter's work at that period. The glass painter's art was felt not only in the public building, but in the private palace; and civic work of no mean importance was produced in the latter part of this century.

The wars which swept over Europe arrested, for the time, art expression, and with other arts, that of glass remained dormant. It was not until political conditions readjusted themselves that the fourteenth century work of importance commenced to make itself felt. Then a marked change is noted. The need for economy was felt. Larger pieces of glass were employed; the scale of the figure, taken as a whole, was larger. Heads were painted upon single pieces of glass. Canopies and architectural subterfuges were introduced to increase the area of ornamentation and to decrease the amount of more difficult work. Thus, by the so-called accidental discovery of the yellow stain, white glass assumed an importance so great as even to create a style. Most of the frames and canopies were cut in various tones of white glass, the architectural detail suggested with the brush, and quality added by the use of the yellow stain. These effects, beautiful in themselves and economical in execution, were soon used to excess, and the early jewel-like quality of the mosaic colors disappeared. The glass painters strove for a technical deftness in execution and sought by ingenuity to obviate laborious and expensive effort. Thus were produced the *"verres doublés,"* which, starting with sheets of white glass, were flashed with thin films of other colors. Sometimes one flashing was used; sometimes different colors were superimposed. The thin films of colored glass were cut away by the painter, either by the use of acids or instruments, thus giving in one large piece of glass, great richness of detail, with a certain variety of color never before obtained. To this was added the yellow stain on such portions of the white glass as had been left bare by the acid, and another element of richness supplied. The painter thus had among

his other resources, the possibility of producing the richest brocade and tapestry effects; and it is needless to say that these were used with a lavish hand. Thus the *"verre doublé,"* discovered in the latter part of the fourteenth century, reached a perfection of manipulation in the fifteenth, unrivaled in any subsequent period.

Each step of the painter's development had led him from archaic ideals of his early predecessors to a closer imitation of the work of the easel painter; and with this departure came the added danger of the use of pupils and the confusion of the school. A craft can only be vigorous and worthy of the name as long as it is satisfied with its legitimate means of expression. In the early days of glass, one worker was responsible for the entire window. He made the original drawings, was responsible for the arrangement of the color, and with his own hand painted the final details. This method, criticise it as you will, produced a result not to be compared with the work of the later schools, when the master with a series of skilful pupils, produced possibly greater quantities of work, but never a work possessing that essential individuality so markedly characteristic of the earlier glass.

While this development was momentarily interrupted by the decadence of Gothic architecture, and while all crafts were affected by these disorganizing influences, still, later in the sixteenth century, when conditions were favorable and glass was produced in quantities, the system of the school predominated. Historians tell us that the sixteenth century presented specimens of glass painting unexcelled and never to be equaled, and a brief summary of the work extant of this period almost leads us to accept their assertion. Every resource of the craft has been employed—painting could not be more skilful—yellow stain is used in all its glory—etching, *"verre doublé,"* and all the intricacies of the glass worker's art are therein contained. The drawing is above criticism, and the effect of the completed work magnificent in every way. Many men of great ability devoted themselves to this work and the results well justified their devotion. The works at Montmorency, Saint Maclou and Saint Patrice, are a few of the many examples which adorn this period.

The seventeenth century produced that phase of the glass worker's art best known by its Swiss examples. In this, while the scale was small, and possibly the glass large, the painting was of a perfection of detail impossible to excel. A development rarely begins or ends suddenly. The latter part of the seventeenth century and the beginning of the eighteenth, practically saw the disappearance of the glass worker's art as a craft. Some credit this to the introduction of the use of enamel glass painting; others, to the influence of the times. But, whatever the cause, the result was disastrous. Less and less dependence was placed upon the glass as a material, and more reliance upon the dexterity of the painter, until we have in the so-called celebrated window of Sir Joshua Reynolds, nothing but broad sheets of window glass with the design of the artist thereon. They have ceased to retain any of the characteristic beauty of the glass worker's art—they might as well be depicted in any other medium or on any other surface.

Until within a few years, modern glass work has been chaotic. A glance over the schools of Europe will show them seriously attempting to produce thirteenth century windows and fourteenth century windows, and priding themselves upon their literalness in interpretation. Needless to say, under such a system, nothing good could be produced. The work of France of this period hardly merits notice. The work in Belgium and Holland, though better, and relieved in a measure by love for heraldry, never approaches the importance of a school. The same criticism might be made of German glass painting. It remained for the English to sound the note which started the glass revival, so much needed and productive of such far-reaching results. At the time of the great International Exposition of '51, the English glass workers were still striving to create windows on the lines of preceding centuries, but the impetus given by the Exposition was felt by all crafts, and in none more than in that of glass painting.

While the studios of the Powell Brothers, Clayton and Bell, Hardman and others, adhered to traditional precedent, the schools founded and influenced by Morris and the Pre-Raphaelites, made innovations which were soon to influence all glass expression. The

earnest study of early work by the Pre-Raphaelite school, called attention to those beautiful examples still extant of the early art of the glass worker and through the enthusiasm of Morris, artists of eminent ability, such as Burne-Jones, Walter Crane, Holiday, Richmond, Lewis F. Day, and many others, were induced to turn their attention to this method of expression. Recent precedent was thrown aside and ancient examples carefully studied and collated. Thus we find in the modern glass work of England some of the most remarkable examples that have been produced in Europe. It is needless to say that the greatest master was Burne-Jones, and we find in some of his windows a frank use of the line in painting which for centuries had been discarded for the *matte* and stipple. We find also a greater reliance upon the color of the glass, until in some of his later windows many portions were left untouched by the brush. This characteristic, while true in a lesser degree of the work of Walter Crane and Henry Holiday, is still sufficiently marked to make their work distinctive, as compared with that of their contemporaries who followed ancient traditions. In some of Holiday's windows, we find him so insistent upon the color effect as to use the device of doubling the glass or overplating; and in the recent windows of Richmond, executed for St. Paul's Cathedral in London, we find the painted line discarded, and the clerestory windows dependent for their effect upon the selection of the colors and the use of the lead. To such an extent is the superiority of English glass recognized on the Continent that we find in the Museum in Amsterdam, a most important series of windows of English execution, in the great corridor; and in France we can trace, in the work of Merson and Oudinot, a careful study of this recent English school and a tendency to modern methods; while in Germany, the best of the so-called Munich windows are made exclusively of English glass, with (as far as is possible for the Teutonic mind) an exact imitation of their methods of execution.

But in spite of the recognition on the part of these able English artists of the necessity of change in their method of glass expression, possibly due to the fact that they were too close to the precedents of ancient times and too fully surrounded by examples of past work,

the greatest development of modern glass has not been achieved by them. Attribute it to accident, if you will, or to forethought, if you prefer,—it is an uncontested fact that the American School of Glass more closely reproduces the beauty of the early work, with the addition of a richness of material never before seen since glass had its beginning.

The early windows in this country were imported, as were the other forms of art expression, and are of Munich manufacture. Later came a number of fairly good English examples, but none was satisfactory to the American taste. It remained for Mr. John La Farge, and the school of artists who have followed him and profited by his experience, to develop a style which has caused world wide comment, and which not only reproduces the charm of the early mosaic work, but adds the quality of expression of the more modern painter. Mr. La Farge, while a careful student of the early work, has refrained from imitating it. While availing himself of every resource of his material, he has refused to be bound by any of its eccentricities. While sensible of all the beauty that can be attributed to modern design and modern painting, he has had sufficient self-restraint, never to attempt in glass those pictorial effects better adapted to easel painting. His colors are plated and overplated. His leadings are studied with the greatest care. He is a glass painter in every sense of the word, and yet without the use of paint, except in so far as is necessary to depict the details of the flesh. Where lines are needed, leads are employed; where shadows are wanted, overplating is introduced; and the window complete produces a result which combines all the charm of the early work with what is best in the modern.

While we may be taken to task for speaking of American glass under the head of "painted glass," still the window is but the color held in suspension, and is the finest expression of the painter's art that the world has as yet seen. A decorative window is but a mosaic of translucent material; it matters not whether the effect be modified, as in the early work, by the vigorous use of the line applied by the brush, or in the later work by a judicious handling of the lead—the result is the same and must depend upon the ability of the painter.

The technique of painting on glass, while difficult to master, is so simple in its method of procedure as hardly to need explanation. But few methods are employed and it is astounding to think that so many centuries have passed with so little modification of them. The glass painter traces his work with water as a medium, and then reinforces it by the use of color mixed with oil, or vice versa, first draws with oil color and then superimposes the finishing touches in water. These are fired and the process repeated if so desired. This simple method was modified by what is technically called the use of the *matte,* in simpler language, a tone of color laid over the piece of glass to be painted; and such portion of color rubbed away with a stiff brush as may be desired by the artist. This process was varied by scratching through the *matte* with a needle or any blunt instrument. The stipple was used at later periods. These simple methods, with the addition of the yellow stain, etching, flashed glasses, and the use of enamel color, practically comprise the technical resources at the disposition of the painter.

The American method of using glass restored, inevitably but unconsciously, the early conditions of work. We have noted that in the early days the artist was in touch with his work from the first creation of the design to the final completion of the work itself. So, in the American school, the importance of the lead and the selection of color practically eliminated the great schools of apprentices, which by natural development, became what may be truthfully termed, "glass factories," and restored that individuality so essential to the production of any successful work of art.

The glass painter of to-day must not only be the creator of the design and the cartoon, but must carefully place his leads and be responsible for the final selection of color.

We are told that the artist should be satisfied with the language of form and color and that the subject is of minor importance. If this is true, the American artist has achieved success, but is not the subject, and its selection, of vital importance to the success of any work of art? Is not the lesson to be taught, and the thought, to be regarded as of importance? And is it not necessary that, with the perfection of the technical details and the mastery of craftsman-

ship, the delineation of the subject should be an important factor? Should not the art of the window supplement the spoken word and in a universal language, keep constantly before the mind of the observer, through his appreciation of form and color, the lesson to be taught?

ILLUSTRATION I: West window, New College Chapel, Oxford. Design by Sir Joshua Reynolds; subject: The Theological and the Cardinal Virtues.

ILLUSTRATION II: Painted window (twelfth century), from the cathedral of Le Mans, France.

ILLUSTRATION III: Example of heraldic treatment of decorative window by mediaeval Belgian artists: Church of Saint Jacques, Liège.

ILLUSTRATION IV: Modern English window by Henry Holiday.

ILLUSTRATION V: Modern English window by Henry Holiday: St. Margaret's Church, Westminster.

ILLUSTRATION VI: Modern English window by Henry Holiday.

ILLUSTRATION VII: Window after design by Sir Edward Burne-Jones; subject: David and Solomon; Trinity Church, Boston, Mass.

ILLUSTRATION VIII: Lower part of window shown in Illustration V.

Decorated Windows — *Charles H. Caffin*

THE title suggested for this article was "Stained Glass," which I have ventured to change into "Decorated Windows," for two reasons.

In the first place, it should not be overlooked that the art we are considering is that of embellishing windows so that they may decorate the open wall spaces of a building; and, to this extent, the art is subject to many of the laws or principles that govern the art of mural decoration in paint. Secondly, the term "stained," as applied to the glass used in windows, is a misnomer; though there is one important exception to the truth of this statement. There is, in fact, a certain use of "stained glass;" for, at the beginning of the fourteenth century, it was discovered that if glass were coated with a solution of silver and then refired, it would become stained with a hue varying from pale lemon to orange. This is technically known as "the yellow stain," which was used very freely in the windows of the fifteenth century. With this exception the glass used by window-decorators is either "pot-metal" or "painted" glass.

The former is so called because the color is introduced into the glass while it is still in the melting pot. On the other hand, metallic colors which have some affinity with glass, or which have been ground up with powdered glass, may be applied to the surface of a sheet of glass, which is then heated until it is on the point of melting. Meanwhile the metallic pigments do melt and become fused with the glass. So the generic difference between "pot-metal" and "painted" glass is: that in the one case, the color is *in* the glass, and in the other case it is *on* it, and more or less interferes with the translucency of the material. This quality was still further impaired in the sixteenth century by the use of enamel colors, which are practically opaque.

Before leaving this question of materials, let us clearly recognize that what we are considering is the decoration of an open architectural space with glass. Glass is the material; and it is the qualities of glass, as glass, with which we have to deal; and these qualities are, pre-eminently, richness, purity, and subtlety of color and translucence. In the pages of such a magazine as The

Craftsman, it is more than ever necessary to enforce the importance of realizing in the case of every medium its intrinsic virtues: that it has certain possibilities within itself, superior to those of other mediums, and just as surely involves some limitations. It is the delight of every true craftsman to develop out of the medium in which he works its utmost possibilities; and, if he is wise, he will not try to import into it the qualities of other mediums, but will, by study and experiment, make his own material yield its full resources. He will, if he is a decorator of windows, *think in glass;* and, if we laymen are to judge adequately of his work, we too must approach it from the standpoint of glass. This seems a truism; and yet the necessity of stating it and of restating it is clear from the contradiction of the truth in actual practice.

We may have seen, for example, the window in the ante-chapel at New College, Oxford, designed by Sir Joshua Reynolds, and executed by Jervas. The great painter was himself a colorist. "I had frequently," he said, "pleased myself with reflecting, after I had produced what I thought a brilliant effect of light and shadow on my canvas, how greatly that effect would be heightened by the transparency which the painting on glass would be sure to introduce. It turned out quite the reverse." He had thought in oil-pigments, instead of in glass, and attempted to apply to a transparent material the principles that he practiced successfully on an opaque surface.

And how many painters to-day approach the problem of window decoration with a similar obsession. That their forerunners of the fifteenth century onwards, and perhaps even earlier, did the same, accounts for the gradual decadence of the art.

In this brief review I shall not attempt a history of the art,* but only sketch the growth of it in general terms, so as to show the cause of its decadence and, also, to explain how the modern branch of window decoration in America is related to the old, and how it bears

*For this the student may consult the following works: By Charles Winston, "An Inquiry into the difference of Style observable in Ancient Glass Paintings, especially in England," 1847; by N. H. J. Westlake, "A History of Design in Painted Glass," 1881 and 1894; and by Lewis F. Day, "Windows, a Book about Stained and Painted Glass," 1897. The last, imported by Scribner and Sons is particularly instructive.

within itself the principles of new growth and still further development. The window began by being a utility, to keep out the weather; and the glazier's work consisted in uniting the separate pieces into a mosaic by means of strips of lead, I-shaped in section. So far, it was artisan's work only, and one craftsman proved his superiority to another by his skill in choosing the material and in handling it. Then came the thought to someone of adding beauty to utility and of using colored pot-metal, and thereby arose a rivalry in choice and arrangement of material, as well as in the workman's part of leading. From this it was but a step to the adoption of some sort of patterned design, of geometrical character or of the use of flowers, foliage and birds. Up to this point our glazier had developed as a decorator, reaching what splendor of effect lay within his capacity by the use of a mosaic of pot-metal.

By degrees the requirements of the Christian religion demanded symbolic forms and figures. To satisfy it the glazier had to increase his artistic accomplishment and to combine with the pot-metal some portions of painted glass. It was an innovation that made possible grander schemes of decoration, but had within it the germs of future decadence. Henceforth the history of European windows reflects the relative degree of importance given, respectively, to the pot-metal and to the painted glass. At first the craftsman did not cease to be a glazier and kept the painting subsidiary to the glazing; producing such glorious examples as the west windows of the Cathedral of Chartres. By degrees, however, the use of painted glass encroaches more and more upon that of pot-metal, until by the end of the fifteenth century, the use of the two materials is about equally balanced. Already the status of the glazier-artist is becoming insecure; the "real" artist, the painter, is crowding him out of countenance. By the sixteenth century, window-decoration loses its independence and becomes a branch of painting; the painter is in power and the glazier is relegated to the rear position to which so horny-handed an individual properly belongs, and becomes a "common workman." He still, however, retained for a while the noble traditions of his art and craft, and with his help the finest examples of pictorial windows were executed, such as those in the

Cathedral of Arezzo, painted by a Frenchman, William of Marseilles. But, unfortunately, painting itself began to decline. To the magnificence of Tintoretto and the sublimity of Michel Angelo succeeded the empty bigness of Bronzino; to the exquisiteness of Raphael the sentimentalism of Carlo Dolci; and then Caravaggio and his followers, "the Darklings," tried to revitalize the art by extravagance of representation and excessive use of shadow. All these phases of decay were represented in the enslaved art of window-making, until it became in the seventeenth century triumphantly pictorial, lamentably unglasslike.

For it is not the pictorial quality that is so objectionable as the reaching of it through methods which properly belong to the oil-painter's craft. To take one example: that of light and shadow. The painted shadow produces a diminution of the transparency of the glass, thereby robbing it of one of its most essential qualities of beauty. Moreover, the painted light cannot have the brilliance or richness that the pot-metal has, so that the man who relies upon painted glass loses at both ends. He shuts off part of the light and in the rest of his picture does not secure its fullest possible brilliance.

To sum up, the course of window decoration has been continually picture-wards; and the art of glass, in its expression of the qualities inherent in glass, culminated in the "grave and splendid music" of the mediæval windows, notably in those of Chartres. Referring to these, Mr. John La Farge, who has a right to speak with a greater authority than any living man, says: "All the principles of work in glass windows are stated there, though in an archaic form."

It is to these that the kind of decorated window which has been developed in America is related. The pioneers of this new movement leaped clear of all the painter problems that had been imported into the art, and set themselves to learn the art of glass as glass; and to regard the window as primarily a mural decoration. So, in principle, the American window is not a new thing; it is a development of the oldest and best traditions. But like every true development, it has within it a fresh force, which makes it, not a mere

revival, but a new birth with further possibilities of growth. The distinction is a vital one, as may be seen in the domain of American architecture, where the resort to Gothic style has produced a mere revival of some of the forms; weak, spiritless, lifeless anachronisms. If the makers of American windows had done nothing more than copy old examples, their art would have been as much without present force and promise of greater growth as the so-called Gothic revival. But what they did was to inspire themselves with the old masterpieces, to learn the secrets of their beauty and then to set to work to apply the principles to new conditions. In doing so, they contributed something new, both in material and design.

Briefly they have vastly increased the resources of the pot-metal, and have made the leadlines a feature of strength in the design.

At the beginning of their efforts, about 1870, they were met with the impossibility of obtaining good glass, for they were dependent upon the imported commercial product, which did not even represent the best of the English material. So they experimented in the manufacture of the pot-metal, with an independence of existing traditions, with a most high ambition, and with an ingenuity that was quick to take unsuspected hints even from failures. But while they had still proceeded only a little way in this direction, they reenforced their poor material by the device of "plating:" superposing one piece of colored glass over another, "so as to increase its depth or richness; to modify its translucence, or to change its tone; as, for instance, when a color is plated with its complementary color, or a variation of that complementary; . . . . the use of the complementary colors being the basis of all painting and the reason of success of all decorative work that has ever kept its tradition"*

These are Mr. La Farge's words; and he, in the course of his study of complementary colors in connection with window decoration, hit upon an idea, which, more than any other, has affected the development of American glass. He observed that opal glass, made in imitation of porcelain, is more than translucent when there has been any defect in the firing, and that these defective pieces exhibit that peculiar effect of two contrasting colors, which we call opaline.

*For example, the windows of the twelfth century and of the early part of the thirteenth.

They reflect the opal's suggestion of complementary color: "that mysterious quality it has of showing a golden yellow associated with a violet; or a pink flush brought out on a background of green." The device of inserting some pieces of this opaline glass into a window made of English glass seemed to offer such promise that forthwith began a long series of experiments in the making of opaline glass, either to recall the tones of mediæval glass, or to increase the number of shades and tones. Other novelties were introduced into the making of the pot-metal; such as the forcing of the melted glass into folds and wrinkles to simulate the folds of drapery, or the insertion in the molten mass of pieces of glass of the form and color of flowers and foliage, or the manipulating of the mass with pincers so as to vary the character of its surface or to direct the flow of color, by which means the forms and varieties of tone in waves and clouds are imitated. In these and other ways the making of the glass has been prolific in effects; yet, notable though they are, these are rather in the nature of ingenious contrivances. The great distinctive feature of the American fabric is its opaline character; for that has made possible the larger artistic possibilities. When we remember that a color is rendered more brilliant by the juxtaposition of its complementary, we can comprehend what a rare quality a piece of glass possesses for the artist, when it enhances itself by its own possession of the complementary hue. Out of this application of opal glass and the numerous other features of the American pot-metal, at some of which I have hinted, the American artist has provided himself with a palette whose range is practically inexhaustible. At the same time, it must be remembered that the possession of a palette will not ensure a designer being an artist—a subject to which I shall revert presently.

Meanwhile the American designer had imported a new principle into his windows by striving to give an independent decorative value to his leadlines. In the early mosaic windows up to the thirteenth century, the leadlines were regarded simply as a necessary means of connecting the pieces of glass, and when figures were introduced into the composition, they were designed with consid-

erable ingenuity, so that the dark band of the lead should, as far as possible, only enclose and not cross the painted parts. But, as was remarked before, the painted glass, at that time, was still kept subsidiary to the pot-metal; the pictorial idea to the mosaic. It was when the pictorial asserted itself that the inconvenience of the leadline was felt; but, by this time, the problem had become so much a painter's one and he was so far away from the knowledge and feeling of the glazier, that it never occurred to him to make the leadlines contribute to his design. It was the American, beginning over again, so to speak, and going back to the grand traditions of the art for inspiration, who conceived the idea of converting what was considered tiresome limitation into a signal source of strength. And, having recognized the decorative value of the leadline, he widened or narrowed it or shaped it into irregular forms, so as to imitate the touch of a brush or the varying strength and quality of lines.

The American window is thus a translucent mosaic, composed entirely of pot-metal, with the exception of the flesh parts, which are still painted. To avoid the use of even this much painting Mr. La Farge invented a method of executing the face and hands, in glass joined together without lead by melting, or in exceedingly minute pieces held together by threads of finer metal, invisible at a distance; and, although the costliness and difficulty of the process and lack of encouragement on the part of clients have confined the experiment to a few examples, he believes that in this direction there still remains an entire division of the art of glass to be explored.

It remains to mention the two artists most intimately connected with this American development. One of them, Mr. John La Farge, has been already mentioned several times; the other is Mr. Louis Tiffany. Their respective shares in the movement may be characterized as that of projector and engineer. Mr. La Farge has led the way, aiming always at the highest artistic potentiality; while Mr. Tiffany, an artist of sensibility and in control of capital, has made the potentiality possible by his ceaseless experiments in the manufacture of glass. I am not comparing their work, but

their contributions to the development of the art, and it is safe to say that they have been mutually essential to it. On the other hand, Mr. Tiffany's connection with a commercial firm has made his name much more widely known than that of Mr. La Farge, for in our present stage of culture, and perhaps always, commerce speaks with a louder and more carrying voice than art, pure and simple.

We have now to consider the use which the American designer has made of the resources within his reach, and in doing so I do not propose to refer to individual works, but to the general character of the work.

In the Forum of July, 1893, Mr. Louis Tiffany concluded an article, in which he rather jauntily celebrates the superiority of American windows over all others, with the remark that "if we do not make better windows than we ever have made it will only be because the public are not yet ready to receive them." This is but partially correct. What the clients demand and are willing to contribute to by paying for it, must have considerable influence on the character of the work produced; but in the last resort, it must depend upon the designer. Is it so certain that we have artists of sufficient number and ability to supply the demand, if it should be made, for windows as good as, not to speak of better than, the best already executed? We shall return to this question presently, and meanwhile consider the responsibility of the public.

It is a responsibility with important results, for patrons not only can and do lower the possibilities of beauty in a window by being unwilling to pay an adequate compensation for the skill and labor involved; but by their disregard of the inherent possibilities of glass decoration, and their insistence on little incidental notions, they seriously affect the character of the design.

As we observed above, the course of the decorated window has been picture-ward; and to every one person who will regard a window as the decoration of a wall space, superb above all other forms of mural decoration by reason of its translucence, there is an indefinite number who view it only as a picture. I have tried already to show how this tendency gradually destroyed the art; and it is still with us to-day, putting obstacles in the way of the new

development. Moreover, it is perhaps not untrue to say that the public taste in and knowledge of pictorial art at the present day in this country are not so great as in Europe in the sixteenth and seventeenth centuries. At any rate, a trivial partiality for pretty faces and elegant angels, such as figure on a Christmas or Easter card, or for the simpering puerilities that deck the covers of our magazines on the occasions of secular and ecclesiastical festivities, seems to represent the limit of beauty. No higher notion of beauty influences many a church committee, headed by a rector whose chief concern is to secure the correctness of the symbolism.

Is it not better to let the artist compose the window out of the magnificent orchestration of color that is at his disposal, leaving him to give such form and expression as his ability suggests, than to fasten him down to the mere pictorial effect of prettiness? I fancy you might tire of the latter kind of window, while the other would be a perpetual source of inspiration. Anyhow, it is politic, as a general proposition, to let the craftsman do the best that he can with his material; and, if the material of the American designer is better adapted for decorative splendor than for pictorial purposes, and he can through his material reach a splendor unequaled in any other medium, does not common sense prompt that he should be allowed to do so? It is not always that aesthetic considerations coincide with common sense; but in this case they do.

However, if a client desires a window of the best, or better than the best, accepting Mr. Tiffany's challenge, for he is willing to pay the price, to whom shall he go? Suppose he first visit a commercial firm. There are many of them and of various quality. Is it not possible, I will not say probable, that he will be confronted by a glib salesman, who, if my client is a man of intelligence and taste, will utterly displease him? Or, if he is not so endowed, and he leaves his order, is he sure of the best, much less of better than the best? The salesman has shown him a color design, executed by some young man or woman for meagre pay or, perhaps, only on the promise that if it secure an order, he or she shall make cartoons. Is it an unheard of thing for the "firm" to cheapen all round; to beat the poor designer down to the lowest possible price

and to run the work through on the cheapest possible lines, so that the profit is out of all proportion to the quality of the window?

I am afraid that my client will have to face the possibilities of all this; and with the frankness of a layman, to whom the ugly secrets of commercialism sometimes are disclosed, I warn him that all that is "art" is not art.

On the other hand he may choose to go to an individual designer. Then, at least, he will have the satisfaction of feeling sure that the man who conceives and executes the work will receive his fair share of compensation. But can he be equally sure of getting the best or better than the best? It depends entirely on the quality of mind, the knowledge and experience of the individual to whom he goes; and in the light of this obvious truth, I can conceive no more extraordinary or damaging statement than that of Mr. Tiffany's, previously quoted, that "if we (the artists) do not make better windows than we ever have made, it will be only because the public are not yet ready to receive them." It is extraordinary, because it is tantamount to saying that if I take a course of study at the hospital and procure a case of instruments, I am capable of performing the most difficult surgical operations. And it is damaging because it tempts the designer to think that the possession of resources and the array of material is all that he needs to be an artist; and to lead the public into supposing that artists abound.

Listen to the graver words of Mr. La Farge: "All this richness of material, which gives us now thousands of tones, all these new methods, are of no value unless we use them to do work more artistic, more serious than is done elsewhere." And again he says: "It seems to me that whatever importance our revival here has had, is owing mainly to the extreme difficulties first met by the artists, who of their own accord, or from the presence of requests, first turned their attention to the art of glass."

For the vital thing to be grasped in conviction with the story of American glass is this: instead of one man designing and another executing the design in the material, the movement had its beginning in the experiments of artists in the actual material. Out of their handling of the latter, they learned what it could and could

not yield, and with an artistic foresight continually ahead of the existing possibilities of the medium, they gradually brought it to a perfection of resourcefulness. Since the early days, they have trained craftsmen to be artistic, but in the beginning, the craftsmen were themselves the artists.

And the difficulties still confront each serious artist. He needs more equipment than the schools or workshops can supply; he must have the rare gift of color sense, the gift, too, of analytical observation, reinforced by scientific as well as artistic knowledge, and then the final assurance of experience. To him the color sketch and cartoons which occupy so largely the attention of the ordinary practitioner are merely convenient mechanical devices. The real design takes form and color within his brain, building itself up as Troy rose to music, in rhythms and harmonies of translucence. It is playing upon our credulity to suggest that such men abound; further, it is putting a premium on the commonplace. And notwithstanding the wealth of resources in American glass, many windows are very ordinary.

I might have described in detail the making of a window, a process which differs only incidently from the method of mediæval times; I might have entered more fully into the essential differences between the arts of painting and of glass decoration, and shown how qualities prized in the former are unsuitable in the latter and that glass has special qualities, such as that of radiation, which have to be taken into consideration by the designer. But in the pages of The Craftsman I have fancied that I was addressing an audience partly technical, who did not need to be reminded of these points, and partly lay, who would better be directed to the larger aspect of the question.

So, while only touching the fringe upon the petticoat, I have tried to show that our American development is related to what is best in the traditions of window decoration, and that it has within it a new force of present growth and future fruitage, the garnering of which depends as much upon the right appreciation of the public as upon the modesty and seriousness of the artist.

The Making of the Glass — *Samuel Howe*

IT is some twenty-eight years since I first stood at the side of a hot furnace. Watching a molten, half-liquid mass, ladled out of a crucible and poured on to an iron table, to become a "cake" or "lump" of glass. Watching an iron rod plunged into a crucible to "collect" a small, round ball of molten fire, and see it speedily placed into a small steel mold, to be pressed to become a salt-cellar or perhaps a sugar bowl of glass. Watching a long iron pipe, previously heated, dexterously dipped into first one, then another crucible, carefully turned to hold its load, then withdrawn, and see the glass-worker blow down the pipe till the hot, shimmering mass, expanded under the pressure to become a bottle of glass. And watching these various articles for a few moments till some of the color appeared as the intense heat partly subsided, and they were quickly consigned to the annealing kiln to remain for twenty-four hours gradually to cool.

The "cake" or "lump" was of some dark, dull color, which did not show itself till it was broken up for "jewels." The salt-cellar or sugar bowl was solid "milky" opaque, like porcelain. The bottle was transparent, exhibiting curious spherical markings of brilliant colors and changing tones, together with loose, wayward pencillings of opal, and possibly a flicker of gold or silver, as though of fine dust sprinkled on the surface.

All this happened in England at "Sowerby's Glass Works," Gateshead-on-Tyne.

The elucidation of the subject is beset with difficulties, still there are a great number of minute historical and archaeological facts. Witness the public libraries and museums, where we see glass, opaque, semi-opaque, translucent, transparent, as material for drinking vessels or other domestic utensils, beads for personal adornment, and mosaics for decoration. Analysis of the fragments show them to consist of precisely the same chemical compounds that form part of the mixture used in glass manufacture to-day. Take a Roman bead from savage England, dug up in say Leicester or Bath, crush it, and what do we find? That the oxides of cobalt have produced the blue, oxides of copper the red tones. Window glass existed in Roman times, fragments and some large

panes were found in England at Dareuth, Kent, in the ruins of a Roman villa. Rough one side, smooth the other, as though poured on a slab of marble or stone. But the wondrous, sparkling iridescent quality noticed on the surface of many of the "tear bottles," "gods," small figures, beads—what not—is very largely due to decomposition, atmospheric influences incident to a long exposure to moist air, underground acids, gases and other unmeasurable and unaccountable causes.

The process of decomposition, as shown on the Roman and Assyrian glass bottles, is singularly beautiful, film after film is formed, till perhaps twenty or thirty, measuring only a tenth of an inch in thickness, in shape resembling a section of a pearl or an onion. When examined in a polarizing microscope, the group of films exhibited a beautiful circle of polarized light with edges of color, yet when a drop of alcohol or water is applied to any of these specimens, the fluid entering between the films and the polarized light, these splendid colors disappear.

This letter gives a vivid glimpse of the intense value of the glass-worker in early days.

In 758 Cuthbert, Abbot of Jarrow, and a disciple of Bede, wrote as follows on Lullus, Bishop of Mayence: "If there be any man in your diocese who can make glass well, pray send him to me; or if by chance he is beyond your bounds, in the power of some other person outside your diocese, I beg your fraternity that you will persuade him to come to us, for we are ignorant and helpless in that art; and if it should happen that ony one of the glass-makers through your diligence is permitted, D. V., to come to us, I will, while my life lasts, entertain him with benign kindness."

As to the making of the glass, here is a brief extract from the formula:

Thirty parts of lime, and forty of soda, to every hundred parts of sand, fused in the ordinary way in the customary glass furnace with coloring matter added at different stages, varying with the nature of the material.

Emerald green is the product of a mixture of oxide of copper, while small quantities of manganese or very small quantities of cobalt

produce violet shades. The addition of still more cobalt produces the dark indigo blue, of which William Morris was so fond and struggled so hard to reach for dyeing wools at Merton Abbey. Some grades of purple and peacock blue are a product of copper. The best greens are produced by a mixture of chromium with the copper, the shades of green that are seen in sea-water off the coast of Maine,—not that near New York. Golden yellows and orange are secured by a judicious mixture of several metals—here are some of them: The higher oxide of iron gives an orange color, to avoid reduction manganic oxide or some other oxidizing agent can be used. Oxide of lead produces pale yellow and the pale yellow stain that has for ages past spent a large part of its existence crawling over glass surfaces, leaving a permanent common look wherever it goes, shows the presence of the oxide of silver. Manganese produces red and pink. The lower oxide of copper gives the fine blood red of Bohemian glass. Gold oxide, by the way, which is necessary for the formation of dark red and is very expensive, when united with an opal mixture, makes a lovely salmon color. The crowning glory of the enthusiasts was reached when it was discovered that a mixture of an oxide of tin, arsenic or lime, produced glass of the opal quality, extracted from native—that is American—minerals or from fluorite or cryolite of Greenland.

For a long time it was the custom for the American artists in glass—they were not then called craftsmen—to make their experiments in a little broken-down shed in the open districts of Brooklyn where the Dutch glass makers had a small furnace. There, at that time, grand pot ten inch crucible was mostly filled with glass metal. Into this the visitor put pretty well whatever minerals he wished, provided he paid for the stuff when turned out,—good or bad. And if the account books of those early struggles are to be accepted as evidence, the biggest part by far was bad—so bad that even the "cranky artist" could see but little value in it, and the dust heaps of that day testified to the serious inroads these experiments made into the pockets of the early "glass cranks" as they were called. Anyhow, it made good roads, as good as roads went in that part twenty years ago.

The Dutch artisans are a curious folk, and the interviews between the cumbersome, bickering, noisy, common and stubborn bottle-makers, clumsily protesting against the quiet, quick, movements of the artist, eagerly thrusting his eyes or his fingers into danger in his desire to see the result of his trial, is a picture that I should like to see painted. To the one it was a weary, slow and thankless labor, meaning at the time but a few dollars to his little family; to the other it was a fight for life, knowledge and power—an effort to reach an ideal, a name, a kingdom. Skillful and ingenious: impatient and dissatisfied: rejecting any but good results; to-day up and to-morrow down; those were mysterious, anxious times for the artists. These experiments were often recorded by the blisters on hands and wrists from the hot iron blowpipe, or rod, from too clumsily rolling the liquid, pudding-like mass on an iron plate as it was spooned out of the firepot —and stamping quaint crosses and signs on its heated surface as it cooled. Later men were employed to make glass who claimed to have made it in France, in Vienna, in Venice, in Belgium, in Germany. One man produced a green of which he would never tell the component parts. It was the green of the emerald, a green of the old paintings, a green of the vine-leaf when the sun had dried it up, and the dust has formed a velvet bloom upon its sombre lustre; but it drove the glass cutters to despair, it was so hard, brittle, dense, and cranky. But while it filled the heart of the artist with delight, its life was short and it was mostly to be found on the floor, crushed with a hammer, wilfully broken by the workmen, whose patience was not equal to the task of using it. Again, in the struggle to find workers who should be chemists enough to recognize the virtue of the mixtures and able to determine how the changing color could be catalogued or controlled in some way, a fortune was spent. Many men were imported, full of promises of grand triumphs, who were finally paid to go away, lest they ruin all with their resultless, futile efforts to produce some decorative agent.

For a long time glass tiles were made three inches square, and half an inch thick, with a color that resembled old ivory, or

bone. This was one of the earliest successes—hardly two tiles were alike—which was "success" or "failure" according as the purchaser was a member of the small band of art-lovers—or one of the Philistine public. Then it was found that by pouring the contents of two, three or even more pots of metal upon the iron table at the same moment, and dexterously mixing them together, the result was a blend of say red, yellow and blue, semi-opaque, transparent, and opaque, and varying in thickness and density.

Drapery glass is made by rolling the metal on the casting table so that it shall resemble folds, passing the result through rollers and then placing it into the annealing closet for three to six hours, allowing it to cool, and that is all.

As glass making became a commercial success—a well-defined proportion of ingredients giving a well-defined result of so many pounds weight of glass to a given color—several people took up the making. The history, though full of interest, is too long to go into here. Let us note the condition of the sunlight as changing the aspect presented in Europe and America. We must remember while the former was engaged in trying to produce an agent thin, silky, luscious, golden, in a word, as translucent as possible to admit the rays;—hence antique, pot metal, and a sparing use of opal glass; the latter was devoting time, and much—very much—money to the development of an agent, the main object of which is to tone, soften, qualify and control the rays; hence the use, almost exclusive use, of opal glass. Of course, the artists on both sides of the Atlantic, insist on all the color which can be given them.

Yes, but has not this impetuous action of American artists led to grave indiscretions by very much over-doing things, till some people are tempted to consign "transparent picture windows" to a church or hall, rather than private residence, and even there to ask for more light, less "body," and a vestige at any rate of that glassy quality for which some of the old work is famous? The burden of the cry is that artists must be paid higher prices to justify and invite more study of material, of conditions of site. Undoubtedly. Still the strenuous efforts of experts are, as usual, wasted on desert air. Hot air. We have some made on some marvelously ugly glass. How many horrible examples do we all know!

So, as we make the glass, let us think of the sunlight when the glass is part of the picture. And beware of the overdose of metallic oxides, and still more of the various mixtures that produce "leather" or "brick" or "stony" glass.

Oh! the delights of glass making. And the cry of joy with which the news is hailed by the workers when once again a favorite color is produced. Behind that cry lies the history of a curious folk. For it is generations since the average glass-worker was a man of gentle observation. Delicate shades, naïveté and timidity-like credulous simplicity, are no longer found in this civilization. The glass-worker has "grown up." He is rich. And though his hand is still guided by the artist as he handles the mystic agent to produce the tones, the financial end of things leads to the pockets of the glass worker, who adds to his wealth. The artist adds to his —stock of glass!

One grave error which for a time imperiled the popularity of opalescent glass was the amount of daylight it consumed. When people saw that it required four or five thicknesses of dark glass to bring out some delicate quality to its proper value, or to show some half-hidden meaning by the strong light filtering through certain portions, they feared a disturbance in the relative values of the various features of the building where it was employed as a means of decoration; and this objection of the critics and Architects continued until artists produced other effects. Practical men—Architects and others—recognizing the trouble that this use of dark, light-exacting glass was likely to cause by contrasting with the surface color of other materials on the outside of buildings, continued the search for lighter shades, for a thinner and more brilliant glass—a glass with more fire in it—luminosity and sparkle with the peculiar iridescent quality of the pearl and the opal, and of a quality that should make it acceptable for windows—a glass in which bubbles, and what is termed "movement" by admitting daylight, and yet toning and softening it, should render the product available for common use. And in this quest they in time succeeded.

I love opalescent glass because I feel to know something about

it,—because it has been so closely a part of my own personality, and because for a few years it was the material with which what thoughts I had found a ready means of expression. I remember well going from Boston to New York in answer to a letter asking that I study glass with a view of making it a material for design, and of how my correspondent filled me with amazement when we met by saying: "Any combination is possible to you with this opal glass, any thought,—terse, showy, vigorous, or even the most subtile and delicate value can be portrayed. Try to confine your efforts to the use of one color; in shades do not seek contrasts, but work in harmonies. Make a rough color key—a sort of map—of the scheme, and then go to the glass and pick it out."

Then he led me to a basement, long, dark and low—the shelves of which were filled with glass—glass in sheets, glass in round plate-like shapes—and there collecting an armful of a material—some of which resembled marble, but he said it was glass—we carried all we could to the end of the room where a small window gave us light enough to determine the color when we held the material against the light. Some was so dark, thick and stony that I had to use my hat or hand to make a screen around the fragment as a shade to compel the light to go through the glass; while other pieces were thin, crisp and brittle, semi-opaque with a texture like satin, and a feeling like thin shell—so thin that to handle it is to enjoy the liquid-like surface and I feared lest my fingers and thumb must meet as they crawled along the web-like channel between the thick ridges. Some of this is called drapery glass. It has a texture resembling silk, which materially increases the volume of daylight by forming a prismatic net-work which adds force to the light of the sun by spreading and multiplying it from many minute angles. There are two great secrets in the make-up of opalescent windows—one is the art of making the glass itself, the other that of selecting glass to express something, to tell a story, or convey a thought.

The hardest problem of all is to discover a piece of glass to represent the sky. To choose from say thirty or forty tons of glass a

piece sometimes only twice the size of one's hand, which should show the mysterious grandeur of a natural sky with the activities of a soft pearly cloud floating through a clear blue combined with certain wild, free breezy movements, to suggest wind, that shall lead to something dark for the sides; to connect with the landscape background or foreground—whatever it be—to avoid a hard line; that shall at the same time have an air quality, be thin in places, as though a rent were made in the sky, with a glimmer of vivid light to mark the soft veinings and delicate glitter; to give perspective play to the scheme—which governs all, for on that depends the climax of our hopes.

I love opalescent glass. I love it because it is big and because its bigness is constantly stimulating the imagination, and prompting the heart. I love opalescent glass because it has made the Artist free to work, with a freedom that knows no limit. He can be active, earnest, real; because he can give new life to the old glass Mosaics of Rome, Ravenna, Parezo, now perishing with old age, for opalescent glass has presented him with a material that makes reproduction possible, so that their beauty lives again to-day. Opalescent glass invites big themes, treatments and lessons, noble impulses, passions; it is the best medium to suggest the greatest moral and religious thoughts and, in spite of all prejudiced judgments of superficial observers, the strongest material to make a decorative scene that will live in the memory of people for all time, and retain its brightness by portraying the beauties of a delicate landscape of a size, and with a rugged expressiveness that defies all description.

I love opalescent glass because of the employment it gives to men and women, providing a distinct, quaint labor that stimulates gentle courtesies between them. It is a friend to the poor as well as to the rich. Its brightly arranged pictures thrill, soften or conceal at will. Many an artist has taken heart again and reached success with glass as a material with which to start work anew. And I love it because it has given one more chance to the dreamer and the theorist, the plodding painter, and the Craftsman, by its beauty and its power.

In Defence of Fire — *Charles F. Binns*

THE text is taken from a recent issue of a popular magazine, and the words are as follows: "It cannot be too often urged that this way of adorning a piece is, in a sense, a shirking of the difficulty. If you cannot decorate, you can at least splash: that seems to be the thought at the bottom of such adornment. But let it be recognized that the taste for such happy-accident decoration is widespread, prevailing in the Orient as well as in European lands, and that it is a growing taste with us to-day. Even the most artistically minded will value 'single color' pieces and 'flashed' or *'flambé'* pieces; often caring more for them, apparently, than for the wares decorated with more elaborately designed, and certainly more intelligent decoration by hand painting."

The occasion which called forth this passage was the illustration of a number of works by American artist-potters. Some exhibited the much lauded "hand-painting," some the effects of flowing glaze, and the explanation offered is that "if you cannot decorate, you can at least splash!"

About a thousand years ago, certain Chinese potters wrought. Toiling with indifferent success, with imperfect knowledge and crude materials, they eventually succeeded in clothing their clay with clear, translucent glazes, in which the utmost delicacy of color was displayed. Practice made them perfect, and they passed on their knowledge to their descendants, who cherished the memory of their forefathers and achieved still greater triumphs in their kilns. Their glazes glowed with vibrant hues and in their delicate fancy they produced the "violet of wild apples," the "liquid dawn," and many other equally poetic and precious effects.

"The old order changeth, giving place to new," but, like one who is offered a draught of wine, we say: "The old is better."

The purist school of Chinese potters was succeeded by a line of "artists" who sought in the elaboration of "hand-painted" detail to show how much labor could be expended in decoration. These two schools are typical of styles which have existed, side by side, ever since.

Let us examine their claims to consideration!

In Defence of Fire

First, the most important factor in the production of pottery is the fire. This it is which changes the clay so that its substance becomes durable. Its influence draws out the latent quality of the materials used, fuses the glaze, vitrifies the body, and develops the colors. The fire may be almost said to be the measure of quality, as, with but few exceptions, it is true that "the harder the fire the better the ware."

The skill of the early Chinese potters was directed largely toward discovering a substance upon which the fire could exert its influence. They sought vitrifiable rocks and earths, for pigments which should at once be yielding and resistent: yielding, so that the fire might penetrate, purify and perpetuate; resistent, that they might not destroy. With such success were they rewarded that their art has represented the *"Ultima Thule"* of artist potters ever since their day.

They toyed with fire, those ancient Chinese. Of science they little recked. The chemistry of glazes and the physics of the furnace were alike unknown to them, but their work stands unrivaled today.

Second. The second school of ceramists used the same porcelain body and a pure white glaze. After the porcelain was completely fashioned and burned, neither skill nor patience lacking, they painted upon the ware, in rich colors and gold, scenes of varied character. Human figures, stories of life interest, scenes from history: all were depicted with marvelous fidelity and care. This decorative work was fixed at a lower heat than that at which the glaze had been burned, and it remained on the surface. The colors are fused, but do not penetrate the glaze; they are superb but superficial.

The excellence of this class of work lies in the intricate handling of a mass of detail, in a perfect mastery of the principles of decoration, and in a lavish indulgence, qualified by artistic feeling, in the use of gorgeous colors and elaborate gilding.

What, then, are the essential differences between the two schools? The former considers the porcelain as a single note amid harmonious surroundings. The individuality of the vase is empha-

sized by the peculiar quality of the color of which it is an exponent. The result is repose, satisfaction, and delight.

The latter school makes of the porcelain piece a complete chord, often beautiful, always full and resonant. It must be considered apart from its environment, for it is not easily brought into harmony with other things. It is a triumphant display of exuberant skill, but it is not restful. It does not satisfy.

The writer of the paragraph quoted at the head of this article contrasts the two modern schools,—which are the lineal descendants of those described,—to the apparent disadvantage of the former. We are told that "hand painting" is "more intelligent" than the work described as "splashed," and we are asked to open our eyes in wonder at the fatuity of "even the most artistically minded," who have the temerity to care more for single colors and *flambé* glazes than for "hand painted" decoration. The fact that these colors are preferred by artists conveys no significance to this author, except as if to say: "So much the worse for the artists!"

The fact is that in all decorative arts there is a fitness and propriety, the existence or absence of which makes or mars a work. By general consent certain forms and treatments are deemed applicable to wood, certain others to metal. There is an appropriate method for leather and another for basketry. So the essence of the ceramic art is the fire. But, it will be argued, both the examples of work cited have passed through the kiln. True, but, in the "decorated" wares, the fire simply fixed the colors which had been previously prepared. In the work of the purist school, the fire itself was the decorator. The body of the porcelain being formed and lightly baked, or even without any preliminary hardening, the substance of the glaze was compounded and spread over the surface. "Splashing," in the sense of a haphazard distribution of colors, was unknown, but a second glaze was often superimposed by dipping. The whole work was then submitted to the fire. Not only must we take into account the skill involved in the preparation of the required compound, but, also, the accurate discrimination, the iron nerve, and the ceaseless vigilance by which the fierce flames are now stimulated and now subdued. The pride of the potter is that

his clay shall yield to the furnace: flowing and mingling in matchless beauty and endless variety. But the glazes must also acknowledge the artistic restraint by which his whole work is controlled. Not a tear or drop of molten glaze must pass the limit. At the bottom of every piece is a tiny rim of dead ground, a biscuit line of demarcation. Thus far the fluid glaze can come, but no farther. This is the work designated by our author with a contemptuous gesture, as he writes: "You can, at least, splash."

There is a delicate discrimination shown between the words "decorate" and "adorn," in the passage quoted, but the dictionary makes no such distinction. It would appear that the development of color by means of fire is not decoration. Let us be thankful that it is not! A piece of brilliant porcelain is, in itself, a decoration, and to daub it with painted flowers or distorted landscapes would be an attempt "to gild refined gold or paint the lily." To endow either porcelain or pottery with brilliant color, pulsing with life and radiance, or with tender texture, soft and caressing: color and texture which owe their existence and their quality to the fire,—this is art. For this the artist-potter lives; rejoicing if his kilns, even through weariness and pain, shall once and again give birth to some precious piece, which is, in itself, a justification and a joy.

THINGS DONE WELL,
AND WITH A CARE, EXEMPT THEMSELVES FROM FEAR:
THINGS DONE WITHOUT EXAMPLE, IN THEIR ISSUE
ARE TO BE FEARED.

SHAKSPERE

An Arts and Crafts Exhibition at Minneapolis

Katherine Louise Smith

THE third public exhibition of The Society of Arts and Crafts of Minneapolis was held from January 20 to 24 inclusive. Following the private view for friends, on the evening of the nineteenth, the large exhibition room was open to the public both day and evening.

The society itself is a small one. It is composed of women who are enthusiasts on the subject, and every effort was made to bring together types of craftsmanship which would be not only a joy to the eye, but of educational value as well. The members are, for the main part, busy women, but all joined to make the affair successful, although the labor of planning and carrying out the exhibition was great, and demanded much strength and time. The posters and cover design of the catalogue were by two clever members, and the collections were presided over by different women, who gladly gave information regarding the display of interesting and valuable specimens of craftsmanship. The exhibits included bookbinding and leather work; cabinet wood carvings; ceramics; metal work; decorative modeling; basketry; designs and book decorations; school work; embroidery and textiles.

Leather work, which is always fascinating to the lover of good craftsmanship, was presented in a number of ways. The warm, rich tones of the leather were never better displayed than in the large display of table and piano covers, desk sets, card cases, bags, magazine covers, etc. Work in this material which attracted much attention was that of Charles Frederick Eaton and his associates of Santa Barbara, California, whose creations have been exhibited only on one other occasion east of the Mississippi. Mr. Eaton sent chests, boxes and cases, which were marvels of unique construction as well as of beauty. His colors are subdued, and all his leather work shows delicacy of treatment and good taste. In particular, one large silver chest of ooze leather, with brass trimmings, received much admiration. This was an expensive production, filled with many trays and compartments, each finished with the utmost skill of the workman's art. Mr. Eaton combines leather, brass and semi-precious stones in a broad and novel way that appeals to all

lovers of the unique. Among other things in his collection, beside the jewel caskets, screens, writing desks and golf books, were two exquisite marriage books, richly illuminated on parchment. One of these was dainty in the extreme, being bound in white leather, with brass trimmings studded with stones. All Mr. Eaton's creations are marvels of suggestive possibilities; the chests having tiny drawers with decorative handles, and the metal screens designed to set on a table in order to protect an alcohol flame from draughts, were unique affairs that appealed instantly to the connoisseur. This whole exhibit was original and distinctive.

Another notable collection of leather work was that of Mrs. Amelia H. Center of Chicago. Mrs. Center was, at one time, a member of the Minneapolis society, and still retains an active interest in its welfare. Among the articles sent by this expert craftswoman were two beautiful six-foot leather screens: one decorated with an elaborate frieze of carved and embossed leather. Another distinctive piece from the same source was an unique leather reredos for use behind a mantel. This was embossed in rich peacock hues in tones as rich as jewels. All Mrs. Center's work shows rare dignity of design, coupled with much sentiment and good execution. Nearly everything that can be made of leather was shown, the exhibitors being members of the Wilro Shop, Kalo Shop, Swastica Shop, of Chicago; the Society of Arts and Crafts, Dayton, Ohio, and private individuals.

Of a kindred interest to lovers of leather work as well as to book collectors was the large collection of handsomely bound books from all the leading book binderies in the country. Mr. W. G. White of St. Paul, a bibliophile, showed a loan collection representing each of the best binderies abroad and in this country. This, of course, included Zahn, Matthews, Steikeman and Zaehnsdorf. Another loan collection was that of Mr. E. D. Brooks of Minneapolis, who is an expert judge of rare and artistic bookbinding. In this, Rivière and Son and the work of the Woman's Guild Binders of London were represented. Chief interest, of course, centered in the Mosher books, of which there were five, one being of green crushed levant, with gold tooling, hand wrought, with application

of black leather. There were, also, five crushed levant books from Otto Zahn, which showed to perfection his exquisite tooling and mirror-like polish; books from Miss Ellen Starr of Hull House, from her pupil, Paul Verberg, and the work of Minneapolis binders. Miss Starr's Fables of Bidpai, in green morocco, with inlaid diaper of roses, was especially pleasing. Of the Minneapolis workers who were represented, Miss Edith Griffith, a graduate pupil of Miss Starr, had several books in dark green crushed levant, and Mrs. F. B. Dodge, who is an expert amateur book binder, exhibited three books: one, "Our Ladies' Tumbler," printed by Mosher, and bound in crushed levant, with gold tooling and border in red inlays, being especially noticeable. Other fine work was by Professor C. F. McClumpha.

A large and comprehensive collection of designs and book decorations hung against a background of green burlap, formed a decorative feature of one end of the room. Chief among these were bookplates, of which there were many fine specimens, as well as designs for furniture, apartments and lettering. An important exhibit of designs for interior decorations was made by Frederick Charles Walton, the designer for Marshall Field & Co. E. D. French of Saranac Lake, N. Y., who himself engraves his designs on the metal, exhibited a collection of rare bookplates, as did Miss Mary E. Colter of St. Paul, W. E. Fisher of Fargo, N. Dakota, Miss Mary Cheney of Minneapolis, and others. Several interesting designs in landscape gardening were shown.

Two large show cases contained examples of the work of artist-artisans in jewelry: a display of rings, brooches, buckles, etc., showing charming conceits in the management of gold and silver with stones. The great delicacy of feeling that is distinctive of the work of Mrs. Eleanor Klapp of New York, showed to advantage in her arrangements of pearls, turquoises and opals, which were inset in various articles for personal adornment and use. Combs, pins, and buckles vied with each other in beauty, and novel effects were secured in chains, pendants, and buttons. Unique pieces, many of which were given a dash of color by means of enamel, were executed by B. Bennett and Hannah C. Beyer of Chicago, Jane Carson and

Francis Barnum of Cleveland, and Katherine E. Folsom of Winchester, Mass.

The leading workers in hammered and iridescent copper and silverware were well represented. A small but delightful collection of brass candlesticks, a Dutch lantern with horn lights, and smoking sets in pewter being sent by J. R. Jarvie of Chicago. Miss Jessie M. Preston, of the same place, exhibited candelabra unique in design, and a Paul Revere lantern, by Miss Nellie S. Trufant of Minneapolis, attracted much attention, as did also a copper *casserole* and platter by Miss Caroline Seton Ogden.

The ceramic exhibit showed good examples of leading American wares. Besides new productions in Rookwood, old Chelsea plates, cups and saucers in Dedham crackle ware, the Van Briggle pottery of Colorado Springs, Colorado, was well represented. A former Rookwood potter, Mr. Van Briggle has succeeded in producing ware of a most artistic order by hand modeling instead of molding. In this way charming flower and figure motifs are carried out in soft greens that delight the eye. Another unique pottery exhibit was the Losanti ware, made by Miss Louise McLaughlin of Cincinnati. Miss McLaughlin's method is unique, in that she fires her pottery only once. The pieces shown had a fine lustrous finish, and many were fretted in design. Minneapolis was represented in over-glaze work: Miss M. Etta Beede having two examples of lustre ware, and Mrs. Ruth Wilson Tice, who makes a specialty of enamels and does her own designing and firing, having, among other things, a rare toast cup, Persian motifs in enamels, and a tile of rich design intended for a cabinet.

The department of carving, burnt and colored wood, contained specimens diversified in design and treatment. Many articles enhanced by the use of color were exhibited by Mr. Arthur G. Grinnell of New Bedford, Mass. Chests, racks and other articles, showed rare workmanship and a fitness of subject with substance and quality of wood. Minneapolis boasts several fine wood carvers, whose work is of more than local interest. From these were three pieces of furniture: a fire screen set with stained glass, and an inlaid desk and chair made by Wallace R. Clark, and a wall cup-

board designed and executed by Mrs. Mary A. Helmick, pupil of Ben Pitman and of William Fry. This was designed in Japanese style, to hold one rich vase in peacock tints, and so that the idea might be complete, a pongee lining with single peacock feather done in stencil was suggested. Another fine piece of work executed by a Minneapolis woman, Miss Harriet McDonald, was a sixteenth century chest done in low relief, the fine walnut lending itself to exquisite carving. Miss Mary L. Buchwalter showed a screen, Miss Helen Heisser a carved frame, Miss Pauline Kruger a burned and colored chest; while other fine carving and cabinet work came from Dayton, Ohio.

Basketry was well represented by numerous local basket makers, the Italian women of Hull House, and the Misses Francis of Plainfield, Conn., the latter sending a number of choice husk and sweet grass specimens. Deerfield, Mass., was represented here, as well as in the textile department, where there was a choice collection of that Society's blue-and-white needlework. A Colonial bedspread, in this last department, attracted much attention, both on account of its age and its queer workmanship.

A corner of the room that lent itself to artistic treatment was devoted to decorative modeling, in which display there were several fine examples from St. Paul and Minneapolis.

A local exhibit was that of beadwork, the display being chiefly of old pieces and including bracelets, charms, belts, bags and tobacco pouches. Colonial, Indian and modern work was represented, and the quaint patterns proved pleasing to the many visitors. Another important feature of the enterprise was the school work, which included designing, lettering, etc.

As a whole the exhibition was the finest that the Society has yet given, and the organization is to be congratulated for obtaining so many and such varied specimens from choice collections. A generous policy governed the entire plan, and the influence of the work so accomplished will be most beneficial and far reaching.

Fusion versus Leadline

THE careful and long-continued study of the leadline by our American artists and craftsmen has led to results which, a few years since, would have been regarded as impossible of attainment.

The time-honored and once indispensable means of combining the glass-picture, or mosaic, has been greatly developed and modified in all the larger and important works which have issued from our studios during the last two or three decades. The leadline is therein made wider or narrower, or is gradually diminished to a point, according to the artistic purpose of the designer. In a word, it is offered as a substitute for the brush strokes of the painter in oils.

In certain smaller pieces, the evolution of the historic means has ended in annihilation. The process of combining the separate pieces composing the design is now effected by fusion. This is the method successfully employed by Mr. Alfred H. Freeman, whose results are illustrated in the present issue of The Craftsman.

The efforts of this worker have been largely directed toward the perfection of the finer details of decorative glass. Mr. Freeman has devised a means of applying glass upon glass, which may be distantly compared with the *pâte sur pâte* method of Solon, the famous ceramist of the Sèvres and the Minton works. The new *appliqué,* or cameo effect, is claimed to mark an epoch in the development of the craft, and is peculiarly adapted for uses in household decoration: such as the production of small windows, panels for pianos, cabinets and *buffets,* fire screens and facings for mantels.

The illustrations show, first, a design executed in the old method: that is, by the leadline which binds together the separate pieces. This is printed as the right hand lower figure of the four composing the page. To the left, upon the same level, is an example of the new, or Freeman, method. Here, glass tiles form the background, into which has been fused a carefully cut floral pattern of opalescent glass. Two smaller examples of the *appliqué* are given in the upper figures, but no idea of the beauty of the work can be formed, in the absence of texture, color and sheen, which constitute its chief charms.

A Danish Designer

THE rank now occupied in the artistic world by gold and silversmiths is approaching that which was held by their predecessors of the Middle Ages. If consideration be restricted to articles intended for personal adornment, the movement may be attributed to the influence of René Lalique, the jeweler who has raised himself to the level of the first sculptors and artists of contemporary France.

The originality of this enthusiast has caused other talents to seek designs and effects beyond those which have for centuries formed the *repertoire* of their fellow-craftsmen. And the chief sources drawn upon for these new ideas are Nature and national traditions.

Certain Danes have, as was fitting, adapted the interlaced patterns and wavy lines constituting the "dragon designs" of ancient Scandinavian and Celtic art. These they have "simplified" and decomposed into various species of *art nouveau* motives with which to decorate domestic utensils and of which to form brooches, buckles and other similar ornaments. Specimens of such utensils and ornaments are found among the illustrations of the present issue of The Craftsman. They are the designs of Mr. Frederik Hegel, executed by the Danish court jeweler, Michelsen, whose work was highly appreciated at the Paris Exposition of 1900, and who served as a juror upon that very important artistic occasion.

The designs clearly reveal their origin and need no explanation. Furthermore, they show a refinement and delicacy of sentiment which provoke inquiry as to the designer. Mr. Hegel is a young man, recently arrived in America, who for several years previous to his departure from Denmark, acted as artistic adviser to the Copenhagen Society for the Advancement of Art Industries. He has done successful work in various branches of craftsmanship, but for the future, will devote himself to work in the finer metals. It is to be hoped that he will not soon abandon the "dragon motive" which delighted Irish monk and Runic carver, and whose possibilities seem even now limitless and inexhaustible.

The Influence of the Jews on Manual Training

Rabbi Joseph H. Leiser

BY the death of Professor Gabriel Bamberger, superintendent of the Jewish Manual Training School of Chicago, one is reminded of the vital part played by the Jews in introducing the manual training idea into the educational institutions of this country. The Jewish genius which has shown itself in sundry humanistic movements and is intelligible only when interpreted in terms of humanity, has, in turn, been most influential in directing the pedagogical thought of this generation toward the higher trinity of mind, hand, and heart; toward the democratization of industry, and the integralization of life. The point of priority is without importance, but one is justified in saying that from the Jewish genius emanated the first consistent and concerted effort to establish a school of the new industrialism in this land of promise.

In lending to the new educational *régime* his enthusiasm and his passion the Jew has not gone out of his native province. Of old he was styled a "pedagogue," and by both spoken word and purpose, he has been tutor of the world. He has always appeared in the attitude of a teacher: expounding not only the Laws of Life of his Torah, but pointing out the way to that fuller life, which is one of the ideals of manual training. The Jew was not destined to build cities, to adorn the hilltops of earth with temples of beauty, or to marshal legions by which to organize the tribes and clans of the world into political bodies. He has aimed to teach man that his relations to his fellow man must be tempered by justice, mercy, and love. Whatever, therefore, tends to lessen the suffering, to heighten the activity, to increase the well-being, prosperity and happiness of man, immediately concerns the Jew.

It is as a teacher that one best understands the Jew. Not only in the technical sense has he fulfilled this office, but also in the more extended significance that he who enriches man's hopes, who widens the horizons of thought, and gives a new value to life, is a teacher divinely appointed. In the restricted professional sense, the Jew has always taught, although sometimes crudely; he has always instructed, although few listened, and fewer still heeded his words

of wisdom. Before his sages and prophets the children of men have been ranged in the attitude of pupils awaiting their instructors: holding toward these molders of character much the same relations as those borne by the rough block of marble to the sculptor, who reaches through the stubborn substance of rock to seize and externalize his ideal.

Teaching has seldom been correctly valued. We have crowned generals and extolled the statesmen. For the inventor we reserve rewards untold and inestimable. But for the meek and lowly teacher, who in silence and obscurity inscribes on the heart of his pupil lessons of life, who fires the very soul of those who win the laurels, we have but scant and chary praises. Such distinctions are without justice. The true teacher stands under a consecration as noble as that of the general, the statesman, or the inventor. He, too, is born, not made. He is a giver, not a receiver. He lends himself to support and strengthen younger lives. In him resides something feminine, but not effeminate, since he sacrifices and renounces, in order that others may be benefited. He works with rare materials, more precious than gold, or much fine gold; he works on and with human souls. To the inarticulate he gives speech. From chaos he leads to light. Brooding as a mother over the soul of the wondering child, he organizes the indefinite and formless into coherency and life. He is an artist, shaping the plastic souls after his image. This is the teacher, artist, sculptor, poet, forming, turning into rhythm, and harmonizing desire, fancy and impulse.

Grasp full well the significance of the teacher, his attitude and his affection! Then the mission of the Jew among men will not be obscured. As a teacher has he been a mentor in determining the character of men, and a censor in establishing truer values of humanity?

The influence wielded by the Jews in adapting the manual training idea to the industrial life of this country has been logical, and, in the light of Hebrew destiny, wholly justifiable. For the Jews of to-day realize with their old rabbis, that on the fate of the school children hangs that of the world. The school lessons of this day's sessions will be the practices and actions of the working world to-

morrow. Unless the children be well prepared for the activity toward which they are advancing, the affairs of men will not be well directed. Well weaponed must they march into the battle of life. Unless during their plastic years they shall have been prepared for the best purposes and wedded to the highest principles, the world waiting at their feet will fare ill. No one has yet devised an instrument to eliminate teaching. At some time in the life of every youth, a superior personality must inspire him with his own enthusiasm, or the life of the youth is bankrupted. The great teacher is a great prohpet, in that he sets splendid visions before humanity. He alone of all men is able to transmute knowledge into the consciousness of obligation, which is usefulness. He alone renders opaque souls translucent.

But teaching has not been raised to this high ideal, nor has the function of teaching been correctly estimated. Teaching is to-day regarded as synonymous with the imparting of knowledge, and the world, assuming that knowledge is a thing of quantity, believes that the teacher's office is to empty his cask of knowledge into the emptier flasks of his pupils. This is the spent echo of utilitarianism. According to the dogma of that discarded philosophy, the child was to be equipped for struggle in the market, fleetness of foot, and skill in the mad race of commercialism. He who knew the most could earn the most. Knowledge was power, and the end of education was to train for power and earning capacity. It was not then through obedience to uncertain promptings, but with a definite desire, and with a deep insight into the higher purposes and ideals of education, that a manual training school, conceived and fostered by Jews, was established, in order to protest against the errors of this false utilitarianism.

It was, in a measure, to supply the deficiencies of our educational scheme that, in 1879, under the tutelage of the Ethical Culture Society of New York, a working man's school was founded, which has subsequently become prophetic for this nation: illustrating the new methods of education and the function of education in the organism of society. The creative spirits of the Ethical Culture Movement knew that without a thorough and efficient system of

education, our democracy is unthinkable. To them it was evident that this nation can not be preserved by warships or forts, or standing armies; that its future success is dependent upon the proper training of the young.

With all their shortcomings, our schools are our most democratic institutions and were the people alive to the importance of the school, they would be more progressive and less conservative. The school has not kept abreast with the industrial movement of the American people. The Ethical Culture Society realized this, as they regretted the incompetency of the prevailing educational scheme to meet the demands of an expanding industrialism. Therefore, to modernize education and to adjust the pupils to the conditions of a society modified by the industrial interests of the nation were some of the motives which created this working man's school in New York.

School and society are congenitally connected. To sever that intimate relationship is to deflect the purposes and nullify the usefulness of both. Whatever pertains to society ought to be incorporated in the school curriculum. To dissociate the school from the activities, employments, and practices of society results in fostering class and caste distinctions, as it invariably falsifies the true mission of the school, which is or ought to be the mirror of society. When society is based upon a military order, it is proper for education to be athletic or military, as it was among the Spartans. Under the feudal system, with its caste and aristocracy, education became the privilege of the leisuristic class and the education is scholarly, intellectual, unrelated to the social life of the entire people, because the people, as a body, did not exist. Society was too stratified to constitute a whole. But when a nation has become industrial, the education must be adjusted to the chief concerns of the entire people. This fact our educators, it seems, have hitherto largely failed to grasp.

Except in very few instances, our education is still veneered with mediæval notions. It is still a preparation for leisuristic, intellectual pursuits, and not a recognition of the shifting aim and trend of the industrial age. Our entire educational system, from college to

primary, is permeated by this archaic idea. College education still clings to mediæval culture, perpetuating its class distinctions, retaining its useless ceremonies, exalting learning for learning's sake, devoting its energies to "increasing the capacity of enjoying books and art, and enriching passively the spiritual life." College education is to-day the privilege of a leisuristic class, and were it not the flowering of our educational scheme, it would not threaten such serious harm. The nation would not be seriously handicapped, if the few retired into monastic seclusion.

But public school education is arranged to minister to the college, and since the two institutions are connected through various intellectual gradations, the colleges are cited as a result of our erroneous pedagogical policy. The three Rs, as Dr. Triggs contends, are intellectual and scholastic, tending to emphasize the symbols of learning, reading and writing, and wholly ignoring the modifications produced by industrialism in society. We are rapidly becoming, if we are not now, an industrial nation, and the problems of this industrial age must be recognized and solved. The education of the future must attempt to fit people to society, to harmonize the lives of the people with their industrial environment.

To correct the unwise limitation of popular education the Ethical Culture Society sought to introduce a system of education which should, in part, bridge the chasm between life and education. Before the establishment of that school, the educational *régime* had divorced hand from brain. The ambition of teaching was to impart knowledge and to prepare pupils for intellectual vocations. Any attempt to integralize life or to relate teaching to the normal activities and employments of the family (since the family is the prototype of the nation), was fanatically opposed. The working man's college ventured to reshape the school ideal by introducing manual training in connection with the scholastic studies of the old *régime* and by fostering the development of the moral faculties.

In the separation of church and society religion suffered. Schools can not teach religious systems without wounding the prejudices of some portion of the citizens. But men live in ethical relations and, under the old system, these relations were not sufficiently empha-

sized. Religious education has been so sectarian that the fundamental ethical relations which regulate our dealings with our fellow men have been perilously ignored. Our schools have not trained our pupils to the consciousness of their obligations, and have not insisted upon the responsibilities of man as a member of society. The working man's college came as a corrective to this pernicious limitation, setting up the dogma of hand, heart and brain.

The establishment of this school was epoch-making, and that it is now modifying every school system in this country, gives weight and meaning to the title of this article. The presiding genius, he who translated the desire of the founder into an actuality, was a Jew, called, alas, by an untimely death, to his reward. The man who divined so clearly the shortcomings of our popular education, who gave his inspiration and enthusiasm, who through study and experiment, devised the details and curriculum of the manual training school, and whose influence will be felt as the century waxes old, was Professor Gabriel Bamberger. His connection with the working man's school and his superintendency of the Jewish Manual Training School of Chicago, have been instrumental in associating this new educational ideal with the Jews, and in making them the sponsors of this more rational method of instruction.

Trained in youth for the career of a rabbi, in which other members of his family had won distinction, Dr. Bamberger soon abandoned the rabbinical field in order to prepare himself for the profession of teaching. With the characteristic thoroughness of a German he devoted himself to serious study of the science of pedagogy as applied to the teaching of children. Engaged by the German authorities to direct a government preparatory school and business college in Hesse, he remained in his native country a few years, before he was called to be the principal of the school which Felix Adler had established, in connection with his Ethical Society.

To what extent Professor Bamberger was influenced by his German seminary education in evolving his system, is beyond the province of this article to consider. But it is no overstatement to accredit him with the development and perfection of the manual training

idea. He was among the few modern educators who sought to introduce a coherent unity in education, when it was one-sided and imperfect. Manual training is not the ideal education. John Dewey and the late Francis Parker have widened the scope of teaching, but they have built on the foundations Professor Bamberger laid. And although the educational scheme originated by Professor Bamberger was applied, at first, to a general public, recruited from the miscellaneous population of the metropolis, his was, perhaps, the only method applicable to the children of Russian refugees, who had begun to crowd into various sections of the larger cities of this country, especially into certain quarters of Chicago. It was as superintendent of the Jewish Manual Training School of Chicago that he won his fame, and was, moreover, instrumental in establishing what has proven to be a model school.

The children of American parents are able to overcome in later life the defects of an imperfect and obsolete educational system, although some less hopeful educational leaders would doubt the truth of this statement. But the American boy or girl, at all odds, soon adjusts himself to his industrial environment and educates himself in the mechanism of his trade. He enjoys good health; he has been at peace and has lived in freedom; and his energy, no less than his infinite wit, compensates for the wastefulness of his education. In his veins pulses the blood of freemen, and in his heart throbs the aspirations of a liberty-loving people. America is his home and his attachment to his native land saves him from despair and aloofness. He realizes his fellowship and citizenship and is eager to assert them. This is his home, and here he lives and dies. Not so the children of aliens, the children of those who have been for centuries homeless, outcasts, and pilgrims: the children of the Ghetto. The children of Russian refugees come here burdened with the pernicious results of fifteen centuries of indescribable persecution. Cheated out of their birthright, distrusted without cause, hounded without guilt, treated as the incarnation of all that is vile and evil, these children, descendants of generations of martyrs, are not so pliable and adaptable as the native born. The shackles of oppression have cut through their limbs into their souls.

Physically, they are handicapped. Most of them are undersized. All of them are narrow-chested, ill-clad, underfed; devoid of grace and buoyancy, and saddest of all, they are prematurely aged. Sorrow has washed away all traces of joy, and left them bereft of childhood and youth. It was with these children that Professor Bamberger worked to equip them for American citizenship and to thwart peculiar dangers that arose from the removal of repressive measures.

The Jewish Manual Training School was not organized as a trade school seeking to increase the earning capacity of its pupils. Its primary purpose was to develop the children of Russian refugees, morally as well as intellectually, physically as well as industrially. Its educational aim was not patterned after older models which sought to impart knowledge. Professor Bamberger despised such a process. He tried to have the child find itself—to lead it into paths suited to its capacities and talents. His educational scheme was explorative: giving the pupils that self-control and self-confidence, without which no creation is possible. These children were woefully devoid of all poise and self-control. Many of them were dangerously precocious, and unskilled in the use of their hands, and the only system of education proper to these conditions was one which tried to harmonize together the expression of life—hand, heart and brain.

The intellectual education of our public schools was for these children ineffectual. However deficient, they were not ignorant. They knew a language and knew it well. It served them as a means of communication and, in the rabbinical studies, they had stumbled on something resembling arithmetic. The study of that rabbinical literature, begun at an early age and continued with servility until adolescence, had whetted their intellects. Their minds were alert, quick, and retentive. The American school familiarized them with a new language, with local history and, incidentally, with our literature, but no more. And again an industrial training confined to trades and the mastery of trades, would have been equally fatal in so far as a rational view of life was concerned. An industrial education would have intensified a

tendency which was one of many sad inheritances of their restricted life in Russia.

Those who superintended the establishment of this school entertained the hope that manual training would not only temper the mind that had been unbalanced by persecution and fright, but that this rational scheme would wean them from their abnormal desire for barter and petty traffic. Industrialism, during the last four centuries, had sunken the lowest among the Jews. Proscribed from the gilds, and forbidden to engage in the manufacture of articles of use, the Jew was compelled to resort to the direst means of supporting himself. Driven from farm, field, and factory, he was enclosed within his Ghetto walls, where he gradually unlearned the use of handicrafts. Petty traffic, small merchandising were his desperate methods of maintenance, which the allurements of liberty tended to develop.

Against this inherited deformity the school aimed its most strenuous efforts. The pupils were taught the rudiments of all crafts and the nobility of manual labor. In this scheme of education the pupils were fitted for modern industrialism and industrial pursuits, in which most of the graduates are at present engaged.

It may be argued that this school was established to meet special emergencies, and is, therefore, no permanent contribution to our educational experiment. It is true that only among few peoples do similar conditions prevail. Therefore, if this school has been able to rationalize these unfortunate children and to Americanize them, it has performed a meritorious act, since at times the end justifies the means. But this school has not been singular. Through the experiment and planning of Professor Bamberger, a contribution has been made to education which, in a way, lightens the solution of our educational problem. It is found that this school is not peculiar in its system, but that it has the right method fully attested by experience and experiment. It is declared by educators of this and other countries to be the one of the few model schools in existence, from which others may be patterned.

It is only recently that a publicist declared that the best educational system in this counrty exists among the Indians and in certain

schools for the education of negroes. These schools are modeled in detail and mechanism after the school devised by Professor Bamberger. The manual training school is now advocated in every city, town, and hamlet of the United States. Every year some benefactor endows an institution of this kind. Our public schools plodding along under the weight of conservatism and bureaucracy, are gradually introducing corrective measures against the abuse of the old intellectual aristocratic methods. These innovations are on the lines of industrialism: that is, manual training. It is now urged by public spirited men that in place of our present system, manual training schools be everywhere established. This must be, and whenever an enterprise of this kind is established, we are indebted to the zeal and enthusiasm of Professor Bamberger. His is the system of the future.

GOD SPOKE AND GAVE US HIS WORD TO KEEP:
BADE NEVER FOLD THE HANDS NOR SLEEP. . . .
BY HIS SERVANT MOSES THE WATCH WAS SET:
THOUGH NEAR UPON COCK-CROW WE KEEP IT YET.

ROBERT BROWNING:
HOLY CROSS DAY

Notes

ACTIVE preparations are making for the Arts and Crafts Exhibition to be held under the auspices of the United Crafts, in The Craftsman Building, Syracuse, from March 23 to April 4, inclusive. Societies and individuals are responding warmly to the invitation to participate, and the hope for the success of the enterprise is now most flattering. Indeed, it is confidently expected by those having the arrangements in charge, that the exhibition will equal in size and value the most important ones which have been given.

Among the societies and organizations which will contribute are the Handicraft Shop, Boston, the Dayton (O.), the Cleveland (O.), and the Greenfield (Mass.), Arts and Crafts, the Hull House, Krayle, Swastica, Kalo and Wilro Shops, Chicago, and Berea College, Kentucky.

The potteries to be represented include the most noted in the United States; the following having promised contributions: the Grueby, Rookwood, Merrimac, Newcomb, Poillon, Volkmar, Losanti, Frackleton, Bulger, Perkins, and the Moravian Pottery and Tile Works. In this department, also, will be found examples of the work of Fayette Barnum, Louisville, Ky., and of Marshall Fry, New York.

In decorative metal work the exhibitors will be Mrs. Isador Taylor, Miss Amalie Busck, Miss May Heydock, and Messrs. R. R. Jarvie, Andrew Womrath and Arthur J. Stone.

In gold and silver work, as applied to the making of jewelry,—a craft which, through the influence of M. René Lalique, has recently risen to great importance—several of the best designers and makers, women as well as men, will be represented; these are: Messrs. F. Walter Lawrence, B. B. Thresher, B. Bennett, B. Wilson Tripp, Mrs. W. H. Klapp, Misses Madeline Wynn and Jane Carson.

Decorative Leather will be shown from the studios of Mrs. George Shaw, Boston, Miss Amalie Busck, New York, and Miss Amelia Center, Chicago.

The display of book bindings, illuminations and covers, will be large and choice, containing examples from Miss Ellen Starr, Miss Florence Foote, Miss Evaleen Stein, the Misses Marot, Stiles, Pittsfield, Sterling and Bulkley, and from Frank Chouteau Brown, Claude F. Bragdon, Peter Verberg, A. A. Tripp and Otto Zahn. The allied craft of printing will be represented by the Mosher Company, D. Berkely Updike of the Merrymount Press, Carl H. Heintzmann, the Vale Press, and The Mason Publishing and Printing Company (printers of The Craftsman).

Indian handicrafts and village industries will be adequately represented in textiles; the exhibitors in this class being Mrs. Albee, Francis Lester of New Mexico, the Misses Glantzberg of Boston, Mrs. S. L. Bayne, Russellville, Tenn., the Belchertown (Mass.), Rug Industry, and the weavers of Isle la Motte (Vermont).

Notes

A most interesting exhibit of decorative glass and of cartoons for the same has been arranged, in which department will be found designs from the Lamb studios, the Church Glass Company, Charles Connick, Margaret Redmond, and Taft and Belknap.

Other exhibits are now being classified, and the entire scheme is close upon completion.

As an adjunct to the Arts and Crafts Exhibition, which is intended to illustrate the progress and actual condition of American genius and industry, there will be a fine display of foreign work, selected by Mr. Gustave Stickley during his very recent visit to France and England.

The foreign examples will be drawn from the most highly prized sources: representing the Faulkner Bronze Company, the Art Fittings Company, and the Handicraft Society, of Birmingham, England, the "Henry Style" (Furniture) of London, and the famous Maison Bing of Paris; the exhibits from the last named organization including porcelaines, faïences and pottery in grès, metal and leather work (candelabra, electric lamps, etc). Upon the opening night of the exhibition, a literary programme has been prepared, to consist of short papers or addresses by noted educators, artists and craftsmen, resident in various sections of the country. On each day thereafter, a certain number of patronesses, representing the highest culture of Syracuse, will be in attendance, and ushers, chosen from the student body of the local University, will be present to afford information to visitors regarding the exhibits. Further to facilitate social intercourse, a caterer will serve noonday lunches and afternoon tea in a room of The Craftsman Building, which will be exquisitely arranged for the purpose.

Book Reviews

LETTERS AND LETTERING, by Frank Chouteau Brown, is a treatise at once practical and learned upon a minor art which is now passing through an active revival. It discusses classic and modern Roman, Gothic, Italic and Script letters, and ends with a chapter of directions for the student. It meets a real want among draughtsmen and amateurs; having had no predecessor so precise, so extended and so popular in treatment as itself: since the manual of Mr. Lewis F. Day lacks the text which forms so valuable a feature of Mr. Brown's work, and the "Latin Epigraphy" of Professor Egbert covers but a single period and appeals especially to the student of history and literature. "Letters and Lettering" abounds in interesting information regarding optical illusions in the relative heights of the characters included in a single alphabet; it describes the finest

types which have been invented—particularly those of very recent times; in short, it offers a general knowledge of letters and printing which should be possessed by every intelligent person. In discussing the qualities and defects of different forms of letters, Mr. Brown makes several statements which are too valuable to be lost or unheeded; as for instance, when he says: "The minuscule 'Roman' letters were developed to their most perfect individual forms by the master-printers of Venice; and it is to the models which they produced that we must revert to-day when we attempt to devise or reproduce an elegant small letter of any conservative form." Equally just are Mr. Brown's strictures upon the work of William Morris, which are couched in these terms: "The celebrated Roman faces designed by William Morris (too familiar to require reproduction here) are, despite their real beauty, over-black on the page, and awkward when examined in detail. While the stimulus Morris's work gave to typography was much needed at that time, the present reaction toward more refined faces is most gratifying. By precept and example Mr. Morris produced a salutary revolt against the too thin and light and mechanical type faces before in use, but he went too far in the opposite direction, and we are now certainly falling back upon a more desirable mean." Appreciations such as these occur at frequent intervals throughout the book, although the author never loses sight of his principal aim, which is to train the eye, quicken the aesthetic sense and practise the hand of the student. [Bates & Guild Company, Boston, Mass. 5¾x8½. 216 pages. $2.00.

"The Making of a Country Home" is the title of an agreeable book written by Mr. J. P. Mowbray, and published more than a year since. It belongs to that class of pleas for a simple, resourceful life which began long ago with Edward Everett Hale's "Rag Man and Rag Woman," and which have recently multiplied in books such as "Back to the Soil." It differs from much writing of its class, in that it is made to appear as a record of actual experience, instead of being formulated into a problem. Another pleasant innovation lies in the fact that the characters are flesh and blood people, rather than obtrusive mouth pieces for the theories of the author. This is especially true of Wesley and Kate, who are successful sketches of restless, useless, degenerate types to be found in the flats and boarding-houses of every large city of the States. The rustics and the servants are also interestingly portrayed, and with a quiet humor. Altogether, the book is worth reading: both as an argument and as a means of recreation. [Doubleday, Page & Co., New York. Uncut edges. 5¼x8 in. 358 pages. $1.50 net.