By special and urgent request from a number of readers, we make a departure this month from our usual Drawing Exercises, in order to give a few lessons upon

The Art of Illumination.

Now that so many are desirous of putting their Art work into the shape of gift books, souvenirs, cards or other favors, it is not surprising that this request is made, and we shall take pleasure in granting it. It is not our purpose, however, to enter into this subject further than to give some plain, practical hints. If you are desirous of learning more of illumination, which is a most beautiful and interesting art, we would refer you to the numerous published works upon the subject, but there are few who would care to enter so deeply into such research. To those few we would recommend the study of the rise and progress of medieval art as applied to illumination, as well as other topics upon this subject, as it is a most excellent way of acquiring a pure and correct taste. Especially do those who aspire to the designing of their own subjects require such study, for seldom do we see in modern illumination the marvelous beauty to be found in some of the ancient and medieval MSS. It is recorded that two monks who lived in the fourteenth century, Florentino and Silvestro by name, attained to such eminence in the art, that their two right hands were preserved as relics in honor of their skill. However this may be, we can be sure that it is only by patient and persevering work that one can hope to become at all proficient in this branch of art, and that the better the art of calligraphy is understood, the greater the certainty of success.

By calligraphy, which is the first step in the study of illumination, we mean just what the word implies, fair and elegant penmanship. It is hardly to be expected that one who writes in a careless and slovenly manner will ever attain to any real excellence in illuminating. We notice with considerable pleasure and interest that not one of the correspondents who have written to us upon this subject, but show a hand writing beyond the average as regards neatness and finish; in fact, we are charmed with the calligraphy of many letters received from correspondents. It is deserving of very great credit and praise. We can proudly say of Americans, that in no land on the face of the globe is there so much attention paid to good penmanship as in ours, nor so many who wield the pen in so creditable a manner.

Although the people of ancient or medieval times did such beautiful work, they labored under disadvantages quite unknown to us. Then the illuminator had to prepare all his own materials, colors and tools. "Not," observes a writer upon this subject, "that this was any hardship, for in our opinion we believe this to have been one secret of his beautiful coloring. He knew by experience the value and property of every color before using it."

This shows the importance of good color; how very unwise it is to use poor and untrustworthy color in any method of work. In our day we have no difficulty whatever, in procuring all the requisite material ready at hand, and the pursuit of this knowledge, instead of being under difficulties, is one of comparative ease and facility.

The outfit for illuminating is more expensive than that of other branches of work, but the diligent student will not begrudge the amount spent thus if he is really in earnest, as the beauty and fascination of the work will more than repay for the outlay attending it. There are several kinds of materials used, the first being the parchment or paper upon which the work is to be executed. Vellum, because of its high finish, durability and beauty of texture, stands preeminently first for purposes of illumination. All the best examples of the art to be seen are executed upon vellum. The beginner, however, will not for one moment think of making use of so costly a material for first experi-
ments, a fine sheet of vellum of good size being valued at from five to seven dollars. There is parchment, it is true, which may be had at less cost, but for all ordinary purposes Whatman's thick hot pressed paper will be found the best thing to use until the student can venture upon finished work. The Imperial P. P., at fifteen cents per sheet, will answer nicely for early practice. The next requisite is a good drawing board, one which allows of the paper being set in place, and stretched at the same time, will be found the most satisfactory.

Besides these articles, the following will be needed: — A T-square and set square, set of curves, tracing point, foot rule, bow pen and pencil, drawing pen, pair of compasses with pen, pencil and lengthening bar, and a selection of pens and pencils. These articles should be of good quality, the instruments being well finished, or they will cut into the paper, causing the ink to spread.

Of course, very good work can be done with an ordinary goose quill and fine sable brushes, but we give you the complete outfit for systematic work. The most useful pen for illuminating is a quill, because, after a little practice in cutting, you can get it to any degree of fineness or breadth. Those, however, unfamiliar with this pen, or who experience difficulty with it, can use the lithographic crowquill, Nos. 699, 312 and 291, and it is advisable to have also a good assortment of Gillott's steel pens. The ladies' pen, No. 12, is especially useful. The drawing pen is for ruling lines in ink. Never trust to the hand alone when using it, but always use the curves or square for guidance, while inking in lines. Hold the pen quite perpendicularly to the paper, and feed with a brush kept specially for the purpose, instead of dipping into the ink. The drawing pen must be properly cared for to do good work; that is, it should be cleaned after using, and its spring eased by loosening the screw. Compasses should be held by the head, the fingers not being allowed to touch or in any way interfere with the sides, which will alter the distance or radius. Never use a parallel ruler for drawing parallel lines, as its action is generally at fault. Use the T-square and a set square. A regular box of drawing instruments generally supplies all these tools.

A set square is a triangular piece of wood. There are several kinds, but a right-angled one [45°] will answer your purpose best. The T-square, so called from its resemblance to the letter of that name, consists of two pieces of wood placed at right angles in the form of a letter T, the top of the T being called "the stock," and the upright leg "the blade."

To begin work stretch your paper tightly in your drawing board if you have one, if not, fasten by thumb tacks firmly upon any small board. A good preliminary exercise is that which brings into use the T and set squares. One very simple one is to place the T-square flat on your paper, the stock resting against the left edge. The blade being at right angles to the stock, all lines drawn along it must be horizontal. Move it up or down, keeping the stock close to the edge of the paper, and draw lines which will be horizontal and parallel to one another. Now take the set square, and place it with one edge against the lowest horizontal, draw a line, which will be vertical. Draw parallel lines thus by moving the square to the left or right, and the lines will all be vertical to those first drawn with the T square.

The following will also prove useful: With your T-square and set square fixed, draw a horizontal line from left to right, then moving the set square gently along the blade of the T-square, draw an oblique line in the same direction; now reverse your set square and draw lines in the opposite direction, crossing the first set, by this means if these are equally spaced, you will obtain a true diaper pattern. These crossed patterns or diapers have been used from the earliest times, even as far back as the antiquities of Nineveh, and are to be seen yet in relics of Egyptian art. The diamonds formed by the crossed lines are in illuminated work generally filled in with quarries, dots, circles, trefoils, squares, etc., and in colors are very beautiful. Use the T square on one edge of your paper only, whichever edge you begin with, continue using until your drawing is completed. In selecting your curves, choose those which contain the most complicated forms. Particular care should be taken not to use too hard or too soft a lead in drawing your designs, an H medium hard, and an HHH very hard will be sufficient, while an HB medium soft is handy for sketching.
some passing fancy on a separate paper, in order to get a better idea of something you wish to introduce into your design.

Lettering is doubtless the first thing you will wish to try, and for decorative purposes at the Christmas or New Year's season nothing could be found more useful. It is a fine thing to be able not only to paint your Christmas cards and favors by hand, but to letter and illuminate them handsomely adds ten fold to their value. With this in view, we advise you to procure a set of alphabets, either Gothic, Roman or Old English. These are published in book form by Marcus Ward, Prang & Co., and others, and contain many beautiful specimens. Almost any art dealer can furnish these books, or will procure them upon application. Take one of the alphabets, rule parallel lines across it from left to right, taking the width of each letter between the spaces, then rule perpendicular lines from top to bottom, thus leaving each letter in a square space. Now rule similar lines on the stretched paper on your board, placing the T square with the stock at the left edge, and drawing the lines as already described. This being done, sketch in the alphabet with an H pencil, then with a fine pen carefully draw in the outline of each letter, correcting any irregularity in their formation on your pencil sketch. Never use the rubber eraser if you can possibly avoid it. Bread a day or two old is better for removing any mistakes in your pencilling, or for cleaning your paper. Having completed your alphabet in outline to your satisfaction, take a brush with some India ink and neatly fill in each letter. This ink can be had either in cakes or in liquid form; you will find the last named article the most convenient. For the small letters of the alphabet, rule double lines across your paper, parallel to each other at the height of the letters e, c, e, etc., then rule a third line at the height of such letters as d, k, l. Paint perpendicular lines should also be ruled as a help to making all letters perfectly upright.

A hair's breadth inclination or slant will ruin all in a text.

Copy these letters many times, until you can do them with the utmost precision, which we think will be sufficient for a first lesson, in fact it may require weeks or months of practice before you are ready for more ornamental work.

Lessons in Water Color (Continued).

After painting the wild rose, hollyhock, etc., of previous lessons, we do not think you will experience any great difficulty in copying in water color the colored study of chrysanthemums given this month. Although composed of numerous petals which makes the brush drawing a little more complicated, it is not necessary, as you will see, to indicate each one of these in detail, but to give only the lights and shadows in such a way as to express the true character of the flower.

Draw at first the general outline, and then the forms of the shadows, keeping the lines delicate yet firm, being very careful to note where the flowers are modified by perspective, which will not prove a difficult task, as the study is quite simple in its arrangement. The outline drawing being completed, rub down the penciling until it is merely visible as a guide, then wet the paper as explained in earlier lessons. Undoubtedly the best method is that of washing in the background first, but as this is much more difficult, we would not advise it in your earlier practice. You may commence instead with the lightest tones of the flowers. This tone may be carried over each one, and it is well to begin at their upper edges, working towards the center, and taking enough color in your brush to fill in the entire outline, for if you do not proceed in this way, you will be likely to leave a line of darker color where your stroke is unfinished. Should this happen, go over all with a wash of clear water before it has had time to dry in, in order to obtain an even tint throughout.

Another caution is necessary. In mixing a tint, it is always best to prepare enough for the entire wash, as it is not only difficult to match it again exactly, but you may be obliged to stop work to do it at a critical moment, and thus get what artists term a "muddy" or "heavy" tone.

As noted in our earlier lessons, the great charm of water color, is its delicacy, when this is lost, the beauty of the work has vanished. Having washed in this local tint, the shadows may be added next, working from the lightest to the darkest tone, accentuating the deepest shadows afterwards, or when the first painting is dry. This is not the one and only method, it should be understood, as we have sometimes begun with the shadows and
delicate middle tints, afterwards washing in the lighter tone over all, which gives in some instances, very soft, beautiful effects, but the method first instanced, is the best and safest for you at the start, being the more easily executed.

For the white flowers, you may wash in first the shadows, leaving the paper for the lights. A good tone for these soft gray tints may be had by using light red, yellow ochre, and new blue, or if you have not these colors, you can substitute cobalt or Antwerp blue, rose madder and gamboge. For the deeper shading of the more distant blossoms, lamp black, cobalt or Antwerp blue, rose madder, yellow ochre, and a little raw umber may be used. The shadows should be so gently blended as to lead up insensibly to the lights. In order to obtain this effect you will find it necessary to wash over the entire flower after shading, with clear water, before it is fairly dry.

For the local color of the pink and red flowers, you will need vermillion. Let this dry, and then wash over with rose madder, and if you have madder brown in your box, you will find it very useful for the rich, deep accents seen in the red flowers. Paint the high lights in the pink flowers with rose madder; and in the shadows add a trifle black. The middle tones require a little cobalt, and yellow ochre, or if you have it, just a trifle emerald green. We have not advised this color heretofore, although it makes very soft, pretty grays, and is useful in other instances.

Remember that water colors (this green especially), are very poisonous in their nature, and this caution is not useless, when it is considered that many are in the habit of drawing the brush between the lips in order to obtain a good point.

For the greens of this study, a good tone may be had by using Antwerp blue, gamboge and vermillion, with gamboge and cobalt in the lights. A little Indian yellow is also very useful in the warmer accents.

Try these tints on a separate paper, and experiment until you match those of the colored plate. As observed in our last lesson, blues, yellows, and browns, make good greens, but need to be toned down or modified by other colors. Soften, if need be, with light red or rose madder. A little light zinnober green will be found useful in the lights, but be careful that you do not get your greens too vivid and glaring, a fault so often seen in amateur work. A background may be given this subject or not, as taste may dictate. To obtain one similar to that here shown, wash over first with a pale tint, composed of cobalt and yellow ochre. When this dries, go over with another wash of cobalt, vermillion, and yellow ochre, and lastly repeat this wash.

To deepen the tone at the bottom and right hand of picture, add lamp black and a trifle cobalt.

WHO WAS THE FIRST EMBROIDERER?

And thou shalt make a veil of blue, and purple, and scarlet, and fine twined linen: with cherubim the work of the cunning workman shall it be made: and thou shalt hang it upon four pillars of acacia overlaid with gold, their hooks shall be of gold, upon four sockets of silver. And thou shalt hang up the veil under the clasps, and shalt bring in thither within the veil the ark of the testimony: and the veil shall divide unto you between the holy place and the most holy. And thou shalt put the mercy-seat upon the ark of the testimony in the most holy place.

And thou shalt set the table without the veil, and the candlestick over against the table on the side of the tabernacle toward the south: and thou shalt put the table on the north side. And thou shalt make a screen for the door of the Tent, of blue, and purple, and scarlet, and fine twined linen, the work of the embroiderer. And thou shalt make for the screen five pillars of acacia, and overlay them with gold; their hooks shall be of gold: and thou shalt cast five sockets of brass for them.

—Exodus 26: 31-37.
THE ART OF ILLUMINATION (Continued).

We come next to the practical part of the Art of Illumination, that of designing or carrying forward the study to actual execution.

A word of warning is quite necessary at the outset. No branch of work requires more patient, careful study, and continuous persevering practice than this, and you should make up your minds at the beginning not to be discouraged by the numerous little draw-backs and hindrances which will meet you very frequently at first. For instance, you may have a whole page almost completed when an unfortunate stroke of the pen or brush, an accidental dash of color where it does not belong, has marred the work of hours, perhaps days. Never mind, but accept it as only a “take care what you are about” admonition, and you will soon learn to avoid such blunders, and to cultivate a habit of neatness and carefulness that will stand you in good stead in many other instances beside this one branch of work. It is only the careful illuminator that turns out work worthy of our most profound admiration.

A good rule with which to start is the determination to complete whatever is begun, not to throw aside one effort after another incompletely, because it does not quite satisfy you. This is a common fault with all classes of art students, and a very serious one. It is a fault which you would rarely see in foreign schools, but one quite peculiar to the “progressive” American mind. We much need the patience of the foreign or Oriental workers combined with the indomitable energy of our countrymen.

Another consideration is a definite plan of work before beginning, for whether you purpose to illuminate a book or a card, or even a sheet of note paper, you should consider the style and character of the design in order that it shall be in perfect harmony throughout. Whatever text you adopt, keep to it from beginning to end of your design, whether it be Roman, Old English, Gothic or Script, preserve that same style throughout, remembering that your work should be governed always by four concise rules, viz.:

1. The appropriateness of the design to the subject.
2. The harmonious grouping of the parts.
3. An elegance and simplicity of style.
4. To have the same spirit or character pervade the whole composition.

To those who live in our large cities there are delightful fields of study open in the libraries containing works upon this art with many beautiful specimens. Access to such original MSS. will be a great help, and will assist you in acquiring not only a correct, but a pure and refined taste. If you can manage to trace off some of the best examples of ancient or modern illumination, it will be a most useful aid to you in composition and design. But to those who are debarred from such privileges, we would suggest another plan. Go to Nature for your inspiration, and from her learn to originate and design.

As a rule conventional form is to be preferred to exact copying of Nature for illuminating purposes. You will find almost all the best examples of ancient or medieval illumination are conventional in style. You will find it a most excellent plan to carry with you your sketch book or block in all your walks or rambles, and by taking sketches of natural objects, the plant forms for example, leaves, vines, etc., you will have abundant material for design. Gather these leaves, vines, ferns, any pretty or graceful object of the kind, and copy them in simple outline—that is to say—quite flat without any folds or perspective, and you will have a certain ground work and alphabet of design.

You will call to mind the hints we gave in
this direction in a recent number of these lessons, and we are glad to carry the subject somewhat further, as it is a most useful and interesting one.

Take for instance a dog wood, clematis or passion flower blossom, and copy as we have suggested. You will find them most beautiful subjects of design, and if painted upon with the other objects introduced, to scale—that is, in the same border do not make a butterfly as large or even larger than a lion." Which, by the way, is a most excellent admonition, as there is nothing more incongruous than such inconsistencies even in conventional design.

Having made choice of the subject of your

![Specimen of modern illumination](image)

a rich gold or silver ground, very artistic and effective. A writer upon this subject makes the following suggestion: "Butterflies and moths, with wings of every conceivable color, are most useful and beautiful objects for the student. Animals may also be introduced to advantage in borders; but in doing so be careful to draw them, together composition, take a piece of cardboard or drawing paper, somewhat larger than the design itself, and fasten securely to your drawing board. Cross this next with horizontal and vertical lines, in order to form squares or sections of a convenient size. This is to assist you to get all portions of your drawing relatively correct, and of the right
dimensions. You may next proceed to draw the design to be illuminated in pencil. You first begin by sketching out the boundary lines of your text, then the initial itself, then the details of ornament, or decorative features of the subject, until you have it complete. Here you have a comparatively easy task, because any error is easily removed with bread crumbs or eraser. If you find a rubber a necessity, be careful to use only the soft white velvet rubber, which will not rough up the paper as would other kinds of erasers. You may now proceed to trace in your design for its final execution. In order to do this, take a thin sheet of tracing paper and lay it upon your drawing, fastening it securely in place. Now trace very carefully all parts of the design beneath with a medium hard pencil, in order to get a clear, sharp outline. This completed lay a piece of transfer paper over the paper, or vellum upon which you are to execute the illumination, and over this place your traced copy, fastening all securely to your board so that there will be no danger of the different papers slipping out of place, yet in a way to allow of your lifting up the transfer and tracing paper to see how the outlines are progressing while they are being transferred with a point. Be careful not to press too hard with the point, or the line will be coarse and blurred; and do not remove your tracing paper until you are sure that you have a perfect copy or transfer. The next process is the "inking-in" of the lines. This is done with India ink, or any good stylographic ink that will not blot or blur. We have found Whiting's liquid inks excellent for this purpose, the brown especially for portions needed to be colored, while India ink answers nicely for such of the text or ornament as will remain in outline only. Again we must reiterate the importance of correct lines and perfect contours, remembering that every error which exists in the outline will only become more glaring in color; for unlike "love," it will fail "to cover the multitude of faults," as so many vainly seem to imagine. Indeed, it is no uncommon thing to hear a pupil remark "Oh, the coloring will hide all that." No; a thousand times no, it will instead give it a more pronounced and prominent appearance. Having finished the inking in process, take some clean, stale bread crumbs, or the velvet rubber eraser and rub out carefully all the penciling or dust which may have fallen from the transfer paper. You are now ready for the gliding and coloring of the design, which will require more than the limits of this month's lesson permit us to describe. However, as so many are impatient to put this knowledge into some practical use just at this time we will forestall the regular lessons somewhat, giving enough information to suffice for present needs.

Dark colored letters are improved by an edge or border of white or gold. White letters may be edged with blue or gold; gold letters may be edged with any color. As for grounds, the following are effective: Diamonds formed by oblique lines crossing at regular intervals each way in gold, with diamond quarries inside of each section in cobalt blue, or a purple ground with diagonal cross bars of gold, with quatrefoils of white with crimson dot in center.

Clear vermilion gives a deep opaque red; rose madder a bright transparent pink; orange vermilion, a vivid red; Carmine or crimson lake, a rich, intense crimson; while Carmine and Indian red mixed produce a russet tone. For a bright azure blue, cobalt is best. For a pale blue, cobalt and white, and where a deeper tone is required, cobalt and black. For a very brilliant orange, gamboge, glazed over afterward with Carmine or lake. Gamboge will give very bright transparent yellows; while a very rich, brilliant yellow may be had by using cadmium. For a violet or lavender, cobalt and rose madder will do; while a rich warm purple calls for purple madder, and a little Carmine or rose madder with less of cobalt added, may be substituted.

Brilliant greens require emerald green, or lemon yellow and cobalt. A very transparent green is had by mixing gamboge with a little cobalt. Oxide of chromium gives a deep opaque green.

The best browns for illumination are Van-dyke brown and brown madder, while the two combined make a very rich, warm tone. A cold brown is had by adding a little purple madder to Van-dyke brown.

Besides these colors, lamp black and Chinese white will be needed. The limits of this article will not allow us to enter as fully into this subject as we purpose to do later.
on. We will only add enough information to enable you to undertake some simple designs for the illumination of cards or portfolio covers, book markers, etc.

Our illustration shows a very handsome design for a prayer-book or Bible marker, the design to be executed on egg-shell or torchon paper, and fastened to heavy satin ribbon the width of the card. This presented with a handsome Bible or prayer-book, cannot fail to be an acceptable and timely gift; the more prized because of the painstaking handiwork accompanying the book which makes it more than of mere money value.

The moist water colors are of course the best to use for such work, the tube paints being the most convenient. Gold and silver inks and paints may also be had for illuminating purposes, but as these tarnish or turn black in time, the shell gold and silver will be found more satisfactory—that is to say specially prepared gold or silver leaf in shells or small saucers, which may be purchased of art dealers generally.

For merely decorative notions, the gold paints or inks will answer, and are in a more convenient form for immediate use.

Illumination of Holiday Cards or Souvenirs.

In this connection we give a few leading hints as to holiday souvenirs, etc.; and as one hint readily suggests another, there will be scarcely an end to the pretty fancies you will think up in this direction. It is for holiday gifts or mementoes that the knowledge of illumination will be found especially useful, as some of the daintiest most suggestive fancies may be carried out, and articles beautiful in this way will have their value greatly enhanced by tasteful lettering or appropriate symbolism.

Blotting pads are now quite in fashion for the desk or writing table, and can be made in a variety of shapes and colors. The prettiest have sheets of variously colored blotting-paper, pink and white, or blue and white, etc., tied together book fashion, with covers of gilt or ragged edge water-color board. Card panels for these covers can be had in white, rose, violet, pink, amber, pearl, primrose, gray, pale green, pale blue, choco-

late, maroon, black, gold and silver, and in different shapes, as oval, circular, crescent, egg, palette, and leaf-shapes, or other styles can be cut to any shape individual taste may suggest. The blotting-paper is cut of course to match the cover, and the whole tied together with silk cord or narrow ribbons. Some appropriate motto decorates the cover in illuminated text. Something of this sort is suitable:—

"Blot out the evil—let the good remain."
or:

"Write nothing that thou wouldst ever
From thy memory blot."

"Je suis prêt," French for "I am ready," or "Semper paratus," Latin for "Always ready," or its French equivalent "Toujours prêt." Flowers or landscapes are also very pretty upon these covers, a little circle or plaque center enclosing a landscape, with a sprig of holly or mistletoe outside intertwining the letters of the motto is a pretty conceit.

Larger panels of the heavy water color board are made to serve as portfolio covers, and these also may contain blotters, with a pretty sachet pocket for holding letter paper and envelopes. Some very delicate perfume may be introduced between the padded covers of this pocket, strong perfumes are very objectionable. The same mottoes with the exception of the first named, will serve for the portfolio covers, whilst there are many others, as

"Write me on the tablets of thy memory."
or:

"What's well begun is half done."

Or again: "Litera scripta manet," which being interpreted in its wildest meaning is:—

"Words may pass away and be forgotten, but that which is committed to writing will remain as evidence." A year book or memorandum for the twelve calendar months, with appropriate title and heading to each, is another charming gift, and as it is to be used as a special record of important events, will not only prove useful, but a constant reminder of the giver. Some little patience and knowledge of illumination will be required to make this a success. Each month should have some appropriate motto or symbol with name in illuminated letters. The
book itself should be made of vellum or heavy water-color panels, tied at the back, as suggested for the blotters, or if preferred, the cover may be of stiff board, covered with plush, the inner leaves of vellum, parchment or water-color paper.

A very suitable motto for the cover of one of these books is the well known couplet: —

"Gather ye rosebuds while ye may,
Old time is still a flying."

with a pretty design of half blown roses and buds, or another: —

"May this year's book that I send,
    Ever mind thee of thy friend."

Photograph cases or holders may be made in much the same fashion — a pretty way of presenting one's own picture to a friend who has asked it, and this, too, may be embellished with a suitable motto of friendship or regard.

Time would fail us to enumerate all the quaint and charming devices to which the art of illumination lends itself at this season, so that we beg to leave the rest to your own fertile imaginations and ready ingenuity.

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Sulphur for Diphtheria.

Some time since a well-known stationer of Boston had a daughter very sick with diphtheria, with little hopes of her recovery, when a friend handed him a recipe, urging him to try it. The cure effected was remarkable, and the parent was so thankful that he immediately caused a large number of the recipes to be printed, and has since distributed them whenever an opportunity offered, and many are the cures reported to him through its trial. For the benefit of all interested, we copy the recipe: —

"A few years ago, when diphtheria was raging in England, a gentleman accompanied the celebrated Dr. Fields on his rounds, to witness the so-called 'wonderful cures' which he performed, while the patients of others were dropping on all sides. The remedy to be so rapid must be simple. All he took with him was powder of sulphur and a quill, and with these he cured every patient, without exception. He put a teaspoonful of flour of brimstone into a wine glass of water and stirred it with his finger instead of a spoon, as sulphur does not readily amalgamate with water. When the sulphur was well mixed, he gave it as a gargle, and in ten minutes the patient was out of danger. Brimstone kills every species of fungus in man, beast and plant, in a few minutes. Instead of spitting out the gargle, he recommended the swallowing of it. In extreme cases, in which he had been called just in the nick of time, when the fungus was too nearly closing to allow the gargling, he blew the sulphur through a quill into the throat, and after the fungus had shrunk to allow of it, then the gargling. He never lost a patient from diphtheria. If the patient cannot gargle, take a live coal, put it on a shovel and sprinkle a spoonful of flour of brimstone at a time upon it, let the sufferer inhale it, holding the head over it, and the fungus will die. If plentifully used, the whole room may be filled almost to suffocation; the patient can walk about in it, inhaling the fumes, with doors and windows shut. The mode of fumigating a room with sulphur has often cured most violent attacks of cold in the head, chest, etc., and is recommended in cases of consumption and asthma."

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Value of Turpentine.

It gives quick relief to burns; it is an excellent application for corns; it is good for rheumatism and sore throats, and is the quickest remedy for convulsions or fits. Then it is a sure preventive against moths: by just dropping a trifle in the bottom of drawers, chests, and cupboards it will render the garments secure from injury during the summer. It will keep ants and bugs from closets and storerooms, by putting a few drops in the corners and upon the shelves; it is sure destruction to bed-bugs, and will effectively drive them away from their haunts, if thoroughly applied, and injures neither furniture nor clothing.

—  Good  Cheer.
THE ART OF ILLUMINATION (Continued).

Another useful brown is made with light red, gamboge and indigo, shaded with the same colors, with the addition of burnt umber and madder lake.

Burnt sienna is indispensable. Violet carmine is a purple of great depth and clearness, works well and richly.

Neutral tint can be made by mixing black, white and a trifle madder lake, but the color itself is useful to have, as it is then always at hand for shading and for grays.

Chinese white cannot be dispensed with, as it mixes well with all colors, gives body, is permanent, works well and dries clear and pure in tone.

Lamp black is a dense black preferable to other blacks, and this finishes the list of colors needed for a good outfit. There are others much used in illustrating, which you may like to add at pleasure, such as gamboge, a bright transparent yellow, Indian red, which mixed with carmine gives a rich russet tone; small, a brilliant purple blue, and purple madder which combined with carmine and crimson lake makes rich warm purples.

We hinted in our last number that the shell gold or silver is more reliable than the liquid gold paints or inks, and for that reason is to be preferred to them. These metals are beaten into powder, and thus prepared, are sold in small saucers or shells.

Probably the most difficult part of the work to beginners will be the gilding or silivering process, which requires care and practice to make satisfactory. The method is as follows:

Take several of the shells and with a brush filled with clear soft water, wash all into one shell or saucer, and set aside until the gold has settled at the bottom. Now with a piece of clean blotting paper remove the water, taking care not to disturb the gold sediment. Add some weak gum water, mix with a brush and it is ready for use. It
should be of a consistency to flow readily from the brush. To gild you must charge the brush well, taking care to keep it generously supplied in order that the gold may flow freely, otherwise it will have a streaky, smeared appearance. When it is perfectly dry, take a sheet of highly glazed paper and lay over the part which has been gilded, and with the agate burnisher pass with even but gentle pressure over the gilding until you secure a good polish.

For large illuminations, gold paper can be neatly cut to shape and attached to the vellum or parchment with clear boiled starch, or with strong gum water. This is useful for large plain masses, but only the very best quality should be employed. The foregoing directions apply equally to silvering as to gilding. For a good bronze use gold mixed with light brown. Sometimes it is necessary to size the portion to be gilded, that is to paint it over with the size, and when it is dry it is ready for gilding.

We have now arrived at the final and most important stage of the work, viz., coloring. Very pure soft water is used to dilute the paint sufficiently, a trifle gum water may be added, or if body is required a little Chinese white. When a mixed tint is needed prepare enough for all the coloring in hand, or otherwise it will be apt to have a patchy appearance. Keep your colors as clear as possible, no muddy, dirty tones must be tolerated in illumination. With a red sable brush, the size to suit the surface to be covered, proceed to work by charging the tool well with color, moving it uniformly from top to bottom of that portion of the work you are coloring, keeping the color flowing evenly over the whole space. No attempt should be made to restore or alter the work while it is wet, nor must any excess of color be left on the surface to dry off. During the operation of washing, the liquid must be kept flowing at the edge of the wash, so that the brush will leave the coloring perfectly uniform in tone, one flat, even tint.

It is said that the golden rule to be observed in illumination is cleanliness, the greatest care must be taken as to brushes, saucers, palette, etc. Immediately after one color is done with, wash the brush perfectly clean. Almost the entire beauty of an illumination depends upon the purity and brilliancy of color.

In our next number we will give some further hints relating to this interesting work.

Our illustration shows a style of ornamented text often used for initial letters, while the smaller alphabets are employed for the body of the work. When the general design and formation of a letter is understood, the amount of ornamentation may be left to the taste or ingenuity of the illuminator. These letters are not so elaborate as to puzzle the beginner, and yet are decorative enough to give very satisfactory results. In our next we will introduce some of a more elaborate character, involving the necessity of greater skill and experience on the part of the worker.
THE ART OF ILLUMINATION (Continued).

COLORS are emblematical, and this subject should be duly considered by the illuminator. The artists of the Middle Ages always used them in accordance with their peculiar signification.

Red, blue and yellow, the primary colors, when united in ecclesiastical decoration, were emblems of the Trinity, red signifying Love, blue Truth and Constancy, and yellow or gold, Glory. White was typical of Light, and violet of Humility and Suffering. Blue the emblem of Love and Constancy, and when sprinkled with gold signified Heaven. This is not, strictly speaking, an ecclesiastical color, yet as symbolic of Truth and Heaven, is considered a beautiful significant ground for an illuminated text.

Green has been used as the emblem of Eternal Spring, Hope, Immortality and Conquest. Gold or yellow, the type of Glory or Victory, also symbolizes the Goodness of God, and should be used on texts only for the names of Deity.

It should be borne in mind that a dingy yellow is significant of Deceit or Hypocrisy, and should therefore be avoided.

Black, although symbolic of Grief or Misery, is not so when combined with colors. Purple signifies Royalty and Love, as well as Passion and Suffering. It is the color appropriate to martyrs, as well as to kings. Violet signifies Sorrow and Constancy.

As to floral emblems and forms these also have their significance, as well as colors. The snowdrop and marigold are emblems of Purity and Truth, the violet and lily of Modesty, the pansy of Remembrance and Charity. The holly, ivy, laurel and mistletoe, are Christian emblems; wheat, barley, corn and grapes are harvest emblems, and symbols of Prosperity. The olive branch, of Peace and Harmony; the pomegranate, Immortality; the cardinal flower, Distinction; red clover, Industry; white daisy, Innocence; the elm and nasturtium, Patriotism; forget-me-not, True Love; golden rod, Encouragement; hepatica, Confidence; grape myrtle, Eloquence; laurel, Glory; wild magnolia, Perseverance; the oak, Hospitality. Oats and reeds symbolize Music — why, we cannot say, but as they do, it is an appropriate design for the illumination of a music portfolio. The orange blossom, Innocence and Chastity; the passion flower, Religious Fervor; the poppy, Consolation of Sleep; the rose, Beauty; moss rose, Superior Merit; sweet briar rose, Sympathy; wild rose, Simplicity; star of Bethlehem, Reconciliation — a good motto for estranged lovers, or friends who would send a peace offering; sunflower, Pride. The lily is a declaration of Love; the verbena, Sensibility; and the wall-flower, Fidelity. So we might go on and on, indefinitely, with these typical symbols, but we think we have given enough to suggest a large number of designs, and as we are constantly being interrogated as to suitable mottoes, etc., for society emblems, educational or literary clubs, and ecclesiastical designs, we feel sure the foregoing hints will prove acceptable to a large number of our readers.

In coloring a text or design, various proportions of color may be tried, as an experiment, before the actual work is begun. It is a good plan to keep on hand an assortment of colored papers, which can be cut out and placed in different parts of the design, so that effects can be noted. Brilliance is not to be obtained so much by color, as by contrast; as for instance, a light color set off on a dark ground. It is also had by gradation of tone.

In a little work we have upon illumination, we find this description of what gradation of tint will do. Suppose an over-curving leaf should be painted in pure orange, with the gentlest possible after-touch of vermilion towards the corner under the curl, when dry, a firm line (not wash) of carmine, passed
within the outline on the shaded side only of the leaf, gives to the whole the look of a bright scarlet surface, but with an indescribable, superadded charm, that no merely flat color can possess.

Or again, a scarlet berry, pure orange, as before, for the first painting, while still rather damp drop into this, near but not close to the edge farthest from the light, the smallest possible bit of vermilion. When quite dry finish with a minute globule of white, just where the light is supposed to fall, and the berry will appear glossy.

Do not suppose from this that flat color is always undesirable; on the contrary, there are portions of the design in which it is altogether necessary. A dead ground, for instance—that is to say, a ground not at all glossy or polished—for such use the color quite thick and strong, and lay so as to give the surface a smooth, enameled appearance. Spottiness or unevenness should be carefully avoided. Sometimes with a pen a fine hair line of black may outline the whole text. This is a delicate operation, and requires skill to accomplish successfully; but when well
done, gives a most pleasing effect, throwing the dull colors out in a very strong manner.

Some cautions should be observed as to coloring. In laying a ground, for instance, always consider what is to come upon it, or near it, and never have a prominent color repeated in close proximity, nor too much white in relief.

You can get many hints as to methods of good coloring, if you can have access to good examples, as suggested in our first lesson, and yet it is better not to depend too much on any one set of rules.

The medieval illuminations were not hampered by any fixed rules, as you will see by examining their manuscripts. Do not place different washes of color one over another, but get sufficient body and strength of tone at once, so as not to be compelled to lay two coats.

The paper, or vellum, should be treated exactly as in water color painting—that is, dampened before beginning work; and many of the directions as to the use of water colors, in our previous lessons, will be found useful in this branch of work.

Gilding leather is done in this way:—It is first moistened with a sponge, then stretched and tacked on a board. When dry it receives a coat of thick isinglass solution, then one of white of egg that has been beaten and allowed to settle. Upon this is laid lightly with a brush sheets of silver foil, which are then pressed down with a wad of cotton wool. When this is dry, it is painted over with yellow leather varnish, which gives it a beautiful golden appearance. A varnish for bronze boots and slippers is made by dissolving aniline red in shellac or other varnish.

Cane Chairs, painted in colors to harmonize with the furniture of the room, are quite popular. The arm chairs have velvet or plush cushions on back and seats. The rockers are ornamented with bows of bright ribbons.

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A NOVEL AND PRETTY PENWIPER.

The foundation of this penwiper is made of card-board, four inches long by two and three-quarters inches wide, and bound round the edge with black silk braid. On this is sewn a square of stiffened muslin, four inches in diameter, rounded towards the center, so that it only measures two and one-half inches there. It is covered outside with baby-blue satin, on which is sewn a saddle-shaped piece of fine white chamois (flannel will answer), which may be painted or embroidered with colored silks.

Trace the designs upon the chamois, and work the flowers in Kensington or satin stitch, with red, blue, and pink silks, the tendrils and foliage with olive silk, in satin and overcast stitch. Then turn down the blue satin, and sew round the edge a double line of gold thread with overcast stitches of blue silk. A white silk fringe is sewn on under the embroidery. A thick cord of blue and gold is sewn round the foundation, and continued, to form the handles. The ends are then filled up with loose-plaited ruchings of black cloth, cut round the edge in small vandykes. Similar cloth is then sewn on underneath the card-board foundation.
THE ART OF ILLUMINATION (Concluded).

The limits of this department will scarcely admit of the detail upon which we might enter as to this interesting subject; we can only skim over the surface, just enough to give you the desire to dig deeper for yourselves, and fortunately this is a branch of study easily carried on when once the general principles are fairly understood.

We presuppose that you have already acquired some degree of proficiency in drawing and coloring, and so are prepared to face some of the difficulties of ornamental design and more elaborate work.

Landscape is a feature very often introduced for purposes of illustration, and is very effective when taste is displayed. We find much of it in good examples of both ancient and modern illumination. In these specimens, opaque color seems to have been used in preference to transparent color, that is to say, white is mixed with the tints, giving greater body and brightness. In this respect, the mode differs almost entirely from the usual water color method, where opaque tones are studiously avoided. It will be seen at a glance that work of this kind must necessarily involve greater detail, and is intended for close examination, whereas water colors generally speaking show a handling exactly the reverse. Landscapes in illumination are built up by introducing one color over another. The effect is delicate in the extreme.

In examples of mediæval art, and it is always well to look to these for hints and helps, even if we do not follow in all points, we find the blue of a landscape sky delicately graduated with subtle effect, by this study of one color over another, the upper tints, however, being pure and unmixed. As a rule the upper tone is blue, leading gradually down to white at the horizon, broken perhaps by filmy clouds. Lights are emphasized with white, and shading in blue of a darker tone than the sky itself. Upon this blue sky the sun, stars or other luminous objects are often introduced, the rays of light emanating from them represented by a nimbus of gilt or gilded rays. This has a striking, yet a very beautiful effect. The sky in fact is the feature of the landscape, and should be so gently graduated in tone as to give an effect of calm repose. Pastoral scenes are for this reason very appropriate and suitable. As a rule the mountains and rugged scenery of these specimens would strike us as too pronounced, distances being given generally in stronger tones than we feel to be proper, but this we can modify to suit our own perceptions of truth.

High lights we find too, picked out in gold,
while distant buildings, such as towers and church spires, are strongly outlined against the sky. This is sometimes very effective. Another of the most pronounced features of illumination is the introduction of figures.

We find this description of the figure painting in illuminated manuscript of the fourteenth century. By close examination of manuscript of this period we find the utmost delicacy in delineation and tenderness in coloring faces. The painting is found to be laid in with white, and only the cheeks touched with rose color.

The eyes, nose and mouth are drawn in a delicate yet masterly manner, the hair with text or type, which can be done of glossy, black ink, a preparation of black, gum water and India ink in blue inks. It is doubtless better to prepare these ready for use than to mix them for yourselves. After the large initial letter, to be treated carefully, then the figure or landscape embellishes it. You must be careful your outlines as delicate as possible.

You may next proceed to the lesser all the outlines being made permanent India ink well diluted. After this color, coloring. If the vellum or paper does not take the paint readily, a little powdered gall may be mixed with the color. A tint should be applied first, as the burnish should be done before the coloring.

You may then proceed with the miming, applying one tint throughout, wherever needed, as for instance, all the blues illumination, all the reds, etc., laid proper places. The solid colors laid next proceed to shade and embelishments finally if there is a figure or landscape may introduce that in the manner suggested, which will contribute the finer and most telling features of your work.

Having made a number of such copies, you will soon be enabled to design for yourself. In conclusion we wish to suggest some ideas from the author, which will be of value as branches of the work.

"I would advise you to make green leaves in your design. Wonderful a form as is all Nature's work, yet it as if the stamp of perfection and beauty were more strongly impressed upon than on any other of her products. The thousand changing forms of beauty which she clothes the woods, the hills, the very ground we tread upon, ought to all, especially to lovers of beauty and objects of the purest joy and delight.

"Make very frequent use of them in your design, but remember always that in using them, it is of as much importance to form and outline quite right and true to imitate or approach their varying color."

"Remember also that their power better felt by a somewhat sparing the constant use of them, I mean as regards the over-crowding your page, so that thou
may habitually employ many leaves you will have but few of each. Play your flowers and leaves about boldly and freely, putting them in like bright gems of color, just as you need them. If you want to introduce animals or birds, as for the sake of grotesqueness you may desire, do not trouble yourself too much about their species, or try to count all the spots on a leopard's coat before painting it. Let them tell their own tale simply and boldly, and it will not matter that they are not exact zoological specimens.

"Do not, however, go to the other extreme, and violate Nature's laws altogether, for neither is this allowable.

"Another rule of design is, that there should be a general purpose and meaning running throughout the ornamental detail. You should endeavor to carry out some idea, and to this end should reflect well. First, what idea you wish to convey; next, how and by what means you may best convey it.

"I will not say that your meaning will at once be plain to every one, but still the working with a deliberate idea in your mind, will give a unity and a completeness to your design, which will entirely be wanting to one worked out at random, or with a view only to prettiness, the rock upon which so many modern illuminators make shipwreck. Accustom yourself to ask, not 'is this pretty?' but, 'is it right?' and this habit will, I think, be a safeguard to you."

"Careful study of the best manuscript you have an opportunity of examining, will be a great advantage to you, as we have before remarked, in helping you to acquire a correct taste. Do not, however, let it deter you from attempts at original design. There are differences of taste the world over, but as long as you are persevering, and cling to the highest and best of aims in any branch of art you are always safe, and your work is almost sure to be crowned with success."

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LITTLE HOMES (Concluded).

RUTH HUBBARD.

THE sleeping rooms are the next consideration. If the home is to be in one of those little country cottages, the furnishing of the bed-rooms will be a comparatively easy matter. There is sure to be at least one good-sized sleeping apartment, where there will be room for the conventional bed-room suit. Cherry and oak are just now the favored woods, and vie with walnut and ash in winning popular preference. For good durability, however, there is nothing better than walnut, but as an entire set of hard wood will be rather expensive for the modest purse of our beginners, we would suggest their getting one of the so-called cottage suits. These are now extremely pretty, coming as they do in delicate tints with dainty flowers. Indeed they go far ahead of the hard-wood sets in beautifying an apartment; more so if the colors can be carried into the wall paper and trim. Then if the carpet matches, or is a pretty contrast, the sleeping room is well provided for. Speaking of the carpet, we have found by experience that an ordinary tapestry Brussels, though costing a little more than an in-grain, has proved the better economy. For in two rooms where there has been an equal amount of wear, the tapestry is still fresh and pretty, while the in-grain is faded and dingy; therefore if there is to be a carpet, we suggest tapestry; but if that is not to be thought of, matting comes in beautiful designs, closely resembling carpet. Many housekeepers prefer matting for bedroom use. Perhaps this also may prove too great an outlay; then take courage, the floor is always left. If it is anyway smooth, the cracks can be filled with putty, the whole stained in the same manner suggested for the dining room. For such a floor, a center square can be made of a few yards of Brussels or in-grain, sewed together and fringed on the ends. There is a great deal to be said in favor of the bare floors. Indeed if the carpet is not to be taken up at least once a year, and thoroughly shaken, the floors made sweet and clean, the carpets better be dispensed with entirely. It is not very good housekeeping, no matter how orderly and neat everything about the house is