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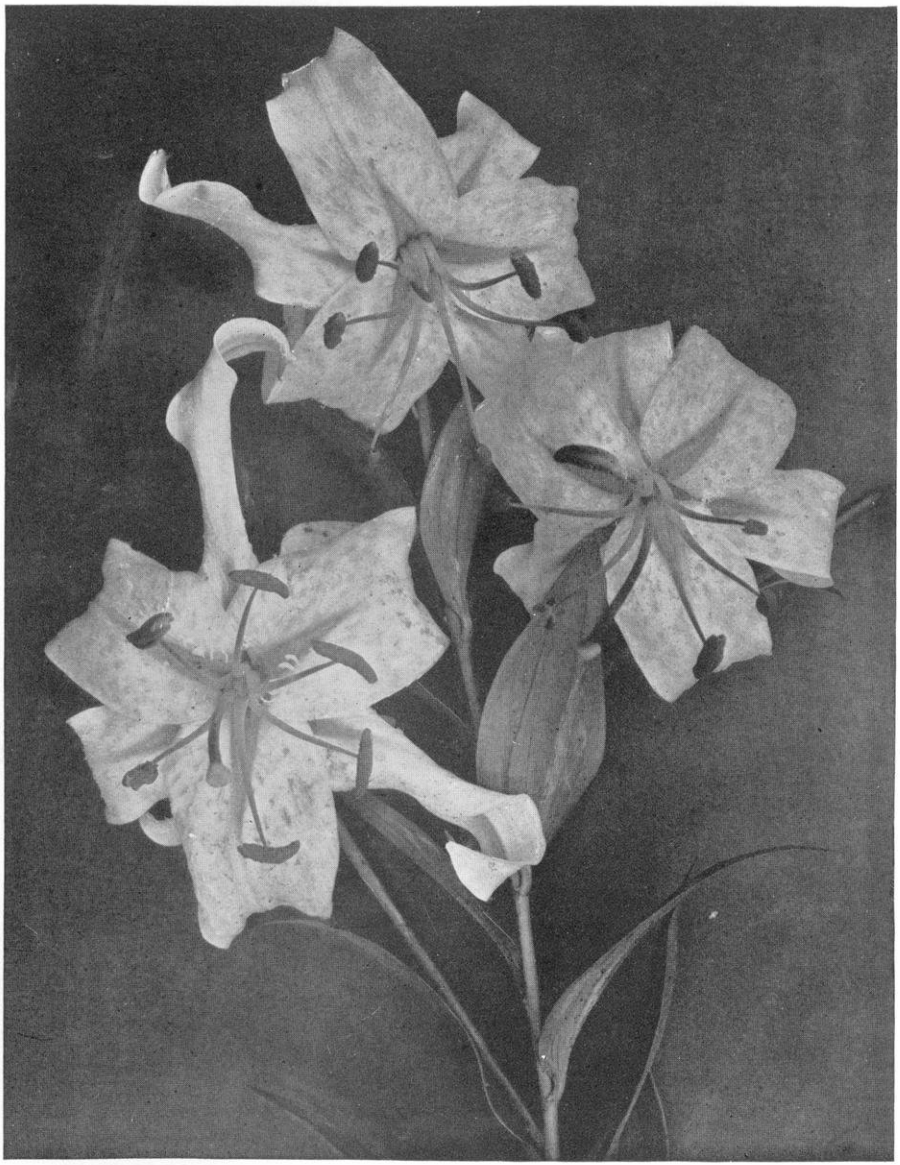

THE WHITE LILY OF JAPAN, LILIUM SPECIOSUM ALBUM: AN ORIENTAL OFFSPRING THAT HAS BECOME THE FAVORITE FRAGRANT LILY OF MANY MIDSUMMER GARDENS.

THE CRAFTSMAN

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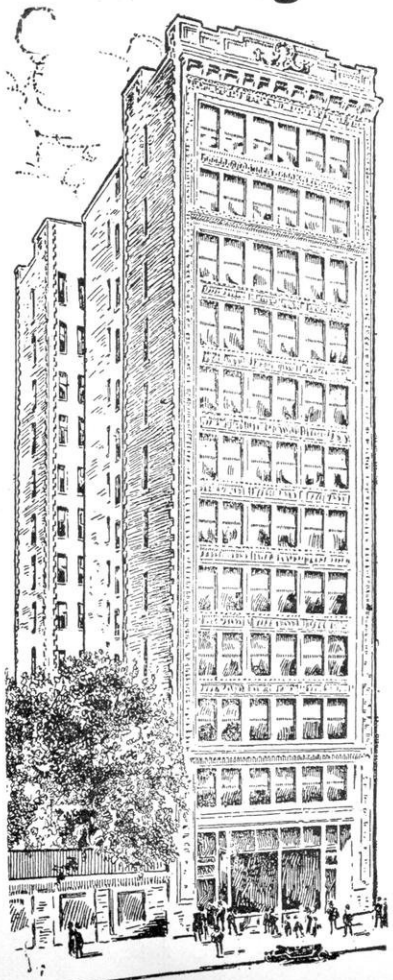
A Message to Manufacturers of Building and Decorating Materials and Home Equipment

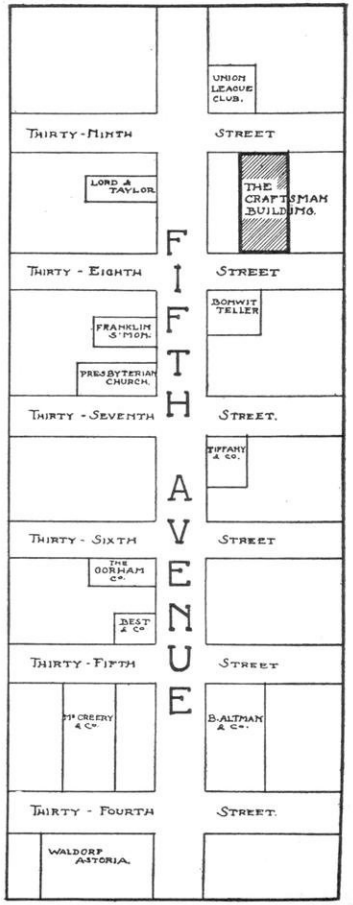


The New Craftsman Building

THOUSANDS of homebuilders are anxious to pick the best materials in building and equipping their homes. They want to see "just how it works" and "how it will look" before they choose. No one has really tried—in a big, helpful way—to gratify this human wish. THE CRAFTSMAN is the first to try, and it has every prospect of succeeding.

After September of this year, such homebuilders and homelovers can come to the new Craftsman Building—just a step from Fifth Avenue, in the most accessible part of New York—and find there a complete Exposition, on a big scale, of "the stuff that homes are made of"—ideal homes, homes that are safe, sound, and true. How to build a good stucco wall will be shown—not by pictures, but *by a stucco wall*—cut through at one end to reveal the secret. What color to paint your house will be decided from miniature model houses—no more "taking chances." What to use on the walls of your living room will be "easy picking" after you see a series of model rooms and model panels. Vacuum cleaners will be shown in operation. Heating systems of every approved type will be displayed together, with impartial guides to advise which is best in any given case. Pergolas and rustic nooks will tempt you to secure duplicates for your own garden. And so throughout the whole range of building materials, interior finish, and home equipment—the thing itself will be there, to see, feel, examine, not merely by itself, but placed or "built-in" in its home setting, enabling the homebuilder to choose with no fear of regrets.

The exhibits will be grouped in logical, systematic order, an entire floor being devoted to each class of products. As indicated on the floor plan below, each floor runs through the entire block, 38th to 39th Street, with light on all sides. THE CRAFTSMAN will employ its own experts to guide visitors through the exhibits and to give advice on building and furnishing problems. **There will be no admission fees or charges for this Service.**



Map Showing Location of the New Craftsman Building in the Heart of the Fifth Avenue Shopping District

THE CRAFTSMAN

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TALL LILIES OF THE GARDEN: LINKS BINDING LANDSCAPE TO ARCHITECTURE AND SCULPTURE: BY ALICE LOUNSBERRY

THE member of the garden which brings it into closest touch with architecture and sculpture is undoubtedly the lily,—the tall upright beauty unlike in appearance any other flower that grows. Of late it has not only entered the gardens of American homes more generally than ever before, but it has captured them, become their master, owing to its extraordinary personality and to the readiness with which it responds to simple cultivation.

The greater number of lilies that now glorify our gardens have come from Japan, America being formerly dependent on a few indigenous varieties, which though quaintly beautiful, deeply beloved by our grandmothers, had not the classic personalities of the wonderful foreign varieties, able to take the place of statues in gardens and to amplify architectural conceits. Fujiyama has given up her lily treasures, sunk deep in the lava fields, that American planting grounds might revel in the possession of their rare and wonderful beauty. Indeed it is with these flowers as it is with shrubs, vines and roses, the hardiest and the best now cultivated in America are natives of Japan.

From time immemorial, however, this desire to import plants from foreign countries has been a characteristic of garden builders. The early gardens of England, those which were copied by the settlers of this country and which we today refer to as old-fashioned gardens, were for the most part made up of bulbs and plants imported from Africa and Italy. Today it is unquestionably the Land of the Rising Sun that supplies the so-called "new features" for the gardens of both England and America.

In making the ascent of Fujiyama, the almost human mountain of Japan, botanists and plant gatherers regarded it as an event when they discovered there the bulbs of the golden-banded lily, *Lilium auratum*, which has since become one of the most generally planted in American gardens. Children too young to have studied geography, people so old as to have forgotten its importance, recognize this lily as

one of their dearest possessions, awaiting its return to bloom each season with impatience. For the golden-banded lily makes a direct appeal to the affection. It stands as erectly, as tall as many men do, reaching under favorable conditions, six feet in height. Its fragrance catches the senses while the astounding size of its blooms, sometimes a foot in diameter, combined with extraordinary beauty and marked by the distinctive gold band, extending from the tip to the base of each petal, give to it so alluring a personality that even the most unobserving of human beings is captivated.

The *auratum* is one of the Japanese lilies that prefers to grow under a certain amount of shade. Too strong sunlight has the power to wilt its buds and to prevent their free expansion. A favorite place for the golden-banded lily is among heavy plantings of rhododendrons, since the blooms are then capable of enlivening the whole planting ground after the flowers of the shrubs have faded. It is also frequently seen in hardy borders where, whenever possible, it should be set so as to catch the shade of tall shrubs.

A COMMON mistake in planting this lily, one equally true of other varieties of Japanese and European importation, is that the bulbs are not set deeply enough in the ground. Collectors who have gathered them in Japan relate that they have found them there buried ten and twelve inches deep in lava fields or elsewhere under the surface of the soil. By pursuing this system Nature protects the bulbs from the frosts of winter as well as from the droughts of summer, and usually it is found that to emulate her ways brings success.

While the golden-banded lily of Japan is the most strikingly beautiful of all those at present known, there are an infinite number showing stateliness, purity of line and exquisiteness of color; many in fact, that add unusual luster to various forms of planting. There are people nevertheless to whom the Madonna or Annunciation lily, *Lilium candidum*, is dearer than the gayer golden-banded variety. It is related of an elderly woman, whose hair had whitened under many sorrows, that things had so narrowed about her that she took pleasure on only two occasions in the year, her grandchild's birthday and the season in which "the lily" came into bloom. "The lily" of her garden was the Madonna, snow white and spotless. In June it unfolded its first blooms, continuing to bloom throughout July, providing the good soul with the one pure ideal of beauty that she possessed. So like in appearance is this Madonna lily to the variety seen in churches at Eastertime, the Bermuda lily, *Lilium Harrisii*, that she probably felt as if she were having a spiritual feast within the intimacy of her own dooryard. This lily also had graciously increased the territory it held

beside the old lady's home, its habit being to produce its bulbs with great generosity. It gave her no trouble, just unalloyed joy. In it she had confidence. It never disappointed her in its return and gave to her through its own propagation infinitely more than she ever expected.

This satisfactory state of things existed because the original bulbs of the Madonna lily, that had been given to her, had been planted in ground that suited them. It may have occurred through accident, nevertheless it was efficacious. If many who through lack of knowledge are afraid to experiment with lilies, had seen those of this old lady's dooryard they would have hastened to buy bulbs and to plant them wherever they had space or opportunity.

Beside a pool the Madonna lily sustains itself like a chiseled bit of marble; and in some deep green spot, confident of its seclusion, it is able to grow as freely as the average perennial. It will thrive in either sun or shade, while preferring the former. When used in an architectural way as a foundation plant for the front of a house where the intense sun of the June day shines upon its flowers, it gleams often amid the surrounding green like sculpture in an old garden.

Unless for some special purpose, tall lilies should not be planted as single specimens. Their stems are too slender and meager in foliage to give a desirable basic effect. In groups, not necessarily of more than three or five, they gain sufficient body however to appear well even in places where there is a scarcity of surrounding growth. The illustration of *Lilium sulphureum*, one of the tallest that grows, shows a few of these lilies forming a solitary group, one which it cannot be gainsaid is strikingly beautiful. Large trees at a distance form the background, while the borderlike planting of shrubs at the base of the group is too low to interfere with the individuality of each one of the lilies.

The great objection to planting tall lilies in this way is the possibility of danger from high winds. The large blooms are heavy, the stems slender; conditions which necessitate staking. No matter how well this work is done, best of all with stakes painted green and hidden as much as possible among the foliage, the artificial supports invariably deprive the plant of its apparent freedom. There are besides, winds so high that a tall stake to which a slender lily is fastened cannot withstand it and in its fall it drags with it ignominiously the whole plant. The natural solution of this difficulty is to back lilies with shrubs taller than themselves and to give them shorter shrubs as foreground plants.

Fortunately many lilies are intermediate in height, besides blooming in July and August, a time when innumerable shrubs and plants have shed their flowers. If planted in front of a group or line of

shrubs including the weigelias, spiræas and forsythias, those which are through flowering by the first of July, and behind peonies, the bloom of which also passes early, many lilies can give to a whole planting ground, during July and August, the benefit of their flowers, making the onlooker cease to regret the earlier ones that have had their day. This method of employing the very tall lilies is perhaps the best one that has yet been devised, for it cannot be denied that many of their stems are lacking in sustaining power and in any particular grace.

THE so-called *speciosum* types of Japanese lilies of which the best known varieties are *Lilium speciosum rubrum* and *Lilium speciosum album*, are somewhat branching in their habit of growth and for this reason are not as dependent upon background and foreground plants as those which raise a tall, slender stem topped with a crown of large flowers. The stems of the *speciosums* seldom reach over three and one-half feet high and their foliage is very handsome. Among it, stakes can be fairly well hidden, while the large size and brilliancy of the flowers catch and hold the eye above all else. In gardens, also in hardy borders these lilies are very useful provided that they are grouped with plants the bloom of which does not interfere with their colors or distinct personalities. Probably they are the most generally planted of any of the Japanese lilies and not without reason, since they grow with the greatest ease, multiplying themselves by means of bulblets. After they have been given place in the garden or border they should be left in undisturbed peace for three or four years when their bulbs should be divided as a means of extending the plantation. The red variety, *speciosum rubrum*, does best when partly shaded, as by rhododendrons or other shrubs: the white variety, *album*, likes however, the full sun. While therefore the two come into bloom at the same time in late August and September, after the golden-banded lily and many others have faded, they should not be planted side by side but rather in separate locations where the sun touches them differently.

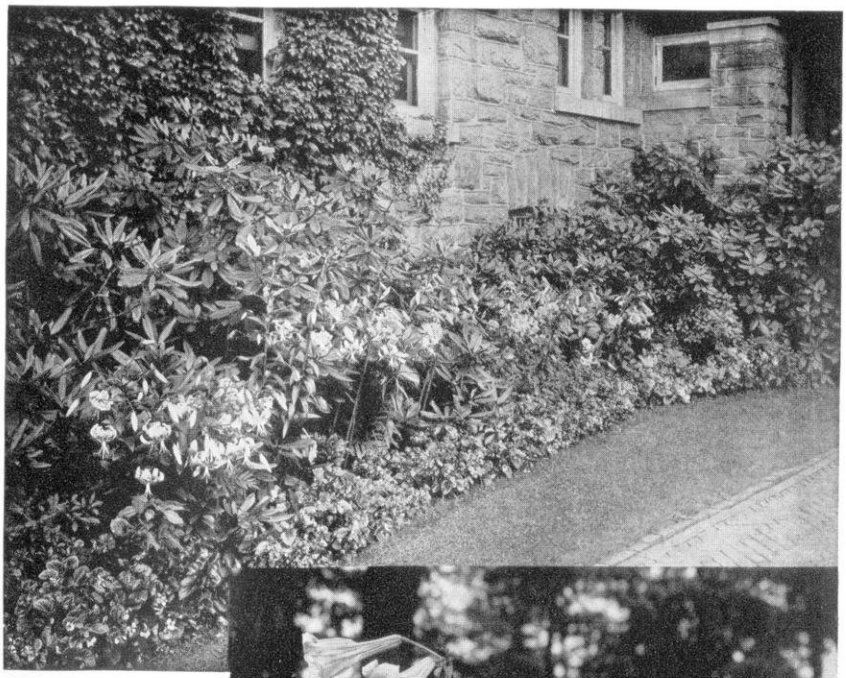
So hardy have these lilies been found by many flower-lovers that they have been planted indiscriminately about homes and in various sections of gardens. One man hugging to himself the sole fact that the red *speciosum* liked to grow in partly shaded places, planted its bulbs throughout a strip of light coppice where he had gathered many beautiful wild flowers. There, in accord with his expectations, it throve amazingly. He showed it with pride to all his neighbors, happy in his innocence that such a planting site was altogether out of harmony with the personality of the lily. There is something too highly

THE GOLDEN-BANDED LILY OF JAPAN, LILIUM AURATUM, AS SEEN ON A SIDE HILL INTERMINGLED WITH HEAVY PLANTINGS OF RHODODENDRONS.

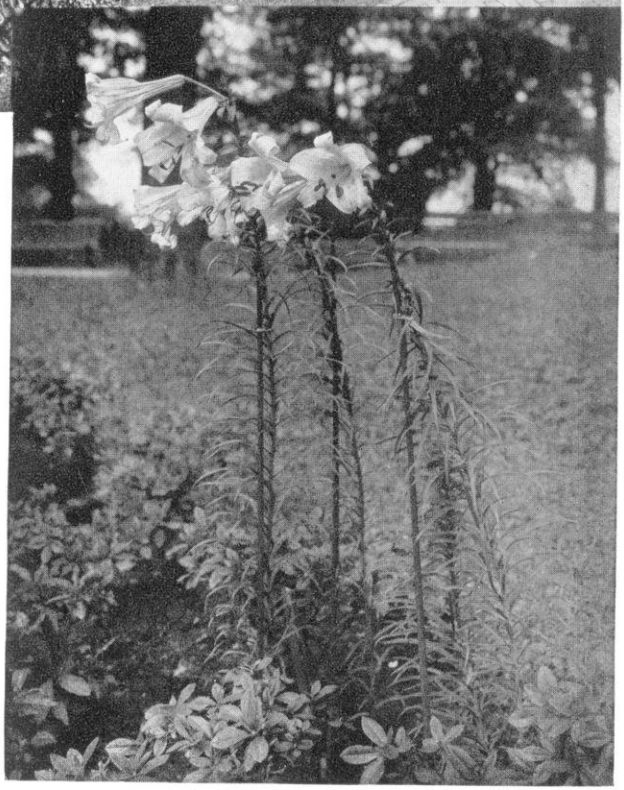
THE MADONNA OR ANNUNCIATION LILY, LILIUM CANDIDUM, STANDING NOT FAR DISTANT FROM A POOL WHERE IT REVEALS GREAT PURITY OF TEXTURE: THIS IS THE MOST FRAGRANT OF ALL THE LILIES, AND IS ONE OF THE FEW WHICH SHOWS TO AN INTERESTING ADVANTAGE PLANTED IN CLUMPS: A FEW STALKS OF THE MADONNA LILY FURNISH WHEN IN BLOOM A FEATURE OF ALMOST ARCHITECTURAL SIGNIFICANCE IF RIGHTLY PLACED NEAR POOL OR HILLSIDE.

HERE WE SEE THE BEAUTY TO BE GAINED BY MASSING THE MADONNA OR ANNUNCIATION LILY AGAINST THE FOUNDATION OF A HOUSE: THE EFFECT IS PARTICULARLY INTERESTING WHEN, AS IN THE PRESENT INSTANCE, THE WHITE AND GREEN OF THE LILIES ARE A REPETITION OF THE COLOR SCHEME OF THE HOUSE: THERE IS A CERTAIN FORMAL QUALITY IN THIS PARTICULAR LILY THAT MAKES IT DESIRABLE FOR PLANTING VERY CLOSE TO A HOUSE WHERE IT SUPPLEMENTS THE ARCHITECTURAL BEAUTY.

THE RED SPECIOSUM LILY PLANTED WHERE ITS BEAUTIFUL FLOWERS APPEAR WELL OUTLINED AGAINST THE LUSTROUS LEAVES OF A BANK OF RHODODENDRONS.



THE SPECIOSUM LILIES AS SEEN AGAINST THE STONE FOUNDATION OF A HOUSE PARTLY COVERED WITH BOSTON IVY, THE LILIES HAVING TALL RHODODENDRONS AS THEIR IMMEDIATE BACKGROUND AND WILD VIOLETS AT THE BASE AS A GROUND COVER.



LILIUM SULPHUREUM, A COMPARATIVELY NEW AND LOVELY LILY, ITS FLOWERS LONG AND TUBULAR, RICH YELLOW INSIDE, AND TINTED OUTSIDE WITH ROSE BROWN: LIKE THE MADONNA LILY, THIS SPECIES IS VERY ATTRACTIVE PLANTED IN A CLUMP OF A HALF-DOZEN STALKS: IT IS ESPECIALLY INTERESTING GROUPED THIS WAY AT THE EDGE OF A LITTLE WOOD OR NEAR A STONE WALL, OR JUST AT THE ENTRANCE TO AN ESTATE: IT HAS AN AIR OF BEING QUITE COMPLETE WITHOUT OTHER PLANTS OR SHRUBS NEAR IT, AND IF SUFFICIENTLY ISOLATED HAS ALMOST THE EFFECT OF A BIT OF RARE GARDEN SCULPTURE.

cultivated in the air of these tall lilies to permit them to mingle well with the more delicate flowers of the wild. A Japanese lily amid naturalistic planting at once proclaims itself a foreigner to the soil, the surroundings and above all else to the sentiment of the place. The lily student longs to carry it away and to plant it where the work of man is in evidence, where in fact, it can come into contact with some architectural scheme and where in the greater number of cases its beauty will appear magnified. In a wild garden it is as out of place as would be an American Beauty rose. The rose has been spared such misplacement because it is known to be dependent upon sunshine, while the lily has met with such lack of comprehension many times, it being scheduled as partial to shade.

Indeed the tall imported lilies are in every sense of the word true garden plants. The member of the tribe that appears at home in places where naturalistic planting predominates is the wild red, or wood lily, *Lilium Philadelphicum.*

ALL of the lilies imported either from Japan or other parts of the world as well as the few that are natives of this country require to have their bulbs planted where the drainage is good. For unlike many Japanese irises they will give no results if allowed to settle in water. To ensure good development they should be planted in light, loamy soil without a superabundance of clay. In many cases the average garden soil is suitable for their growth.

When a lily bed is especially prepared the soil should be dug out to a depth of about two feet and the space then filled in with a mixture of light, rich leaf-mold, sand and well-rotted manure. A handful of sand, moreover, should be wrapped about each bulb that any possibility may be avoided of its coming into contact with the manure, which works quickly toward its destruction. This preparation of the soil for lily bulbs is seldom arduous. In places, however, where doubt as to the perfect drainage of a planting ground is entertained, the bed should be dug deeper than usual and filled in for about a foot with cobblestones. In the autumn or as soon as the bloom is over and the stalks have turned yellow, they should be cut down; and while not absolutely necessary, it is a wise precaution to cover at this time the whole bed with a mulch of old manure.

By collecting different varieties of lilies their bloom can be seen in a garden from the middle of May until well on in September, and while all of the varieties have more or less stateliness they are soon found to vary greatly in details. The old-fashioned tiger lilies, *Lilium tigrinum,* more hardy and enduring than almost any other flowers, can uphold a planting ground since their color is one that demands a

certain apartness from all others. Red lilies gleam startlingly bright amid green masses; the browns, yellows and buffs which are among the newer introductions, work invariably for special effects, while the wonderful pure white ones give not only the beauty of sculpture to many gardens in the daytime, but appear, as daylight fades, to turn a cool evanescent shade of blue, holding long the twilight.

ART AND HEART

"I ALWAYS say to my young friends," says Adelina Patti, "not can you shake, can you trill, can you imitate a mocking-bird—but can you sing a simple ballad in honest, straightforward fashion, such a ballad, for instance, as 'Home, Sweet Home'? That is the real test."

Patti knows. And it is worth observing that what she says of singing applies also to every other work in life.

Naturalness is the soul of art.

No two things are more closely akin than art and heart.

Architecture, with all its grandeur, had its beginning and will have its ending in the humble building of a home.

The highest attainment in painting and sculpture is the representation of the elemental emotions. The greatest picture in the world is of a mother and her baby.

In literature, the greatest works are not those of the eagles of genius on far-circling flight, but of the sweet cooing doves that nest under our eaves.

The great songs are not the grand oratorios, but the simple ballads that sing themselves. The great music is not the complex compositions which only a few masters may interpret, but the soul-whispered harmonies which everyone must feel.

The fancy stunts are very well for practice, for development of skill and confidence; but they are only means to an end. The end is true interpretation of human feeling.

The truest art lies in directness.

The great message is always a simple one.

CHARLES GRANT MILLER.

LILIES AS INDIVIDUALS: THEIR DIFFERENCE IN DETAILS, IN TIME OF BLOOM AND IN THE PLACE THEY HOLD IN THE HOME GARDEN

THERE is no doubt that it is the individuality of lilies that has won for them their place in the garden today. Seemingly they are of royal mold, exquisitely proportioned and as graceful when nodding with the wind as a family of young leopards. Many of the newer varieties of Japanese lilies that have taken kindly to the land of their adoption are astonishingly tall and when crowned, as sometimes occurs, with from thirty to forty blooms, clearly cut, translucent and strikingly colored, they seem to have reached a realm where our imagination, not our words, can follow them.

They have no bad habits, a statement as rare in connection with plants as with individuals. In their ways there is nothing rapacious. They never arise and endeavor to choke and to trample out of sight the plants that grow near them as do many perennials. They have, instead, the virtue of magnanimity, asking nothing but a small space of earth, which rightfully they might claim, and freedom to send forth their product, following meantime the natural law of the plant world, that of self-reproduction. Their bulbs take up small space in the earth, their root modesty being pronounced. With serenity and dignity they send up a slender shaft of foliage into the air, and then behold! the miracle of their bloom unfolding slowly, even more gloriously than all else in the garden. Indeed, there is a seeming aloofness about lilies that has perhaps come to be recognized from their association with things sacred.

This aloofness and suggestion of purity is typified by the Madonna or Annunciation lily, *Lilium candidum*, which even on slight acquaintance is found to be so modest and humble in temperament that it delights to grow in the dooryards of the most unpretentious. It is a lily with a wonderful, almost a speaking fragrance, which is intensified as soon as the sun has set and the dusk and moisture of evening have fallen. Almost as the crimson rambler has identified itself with the American people, so has the Madonna lily spoken to the hearts of the masses. It grows and blooms with the freedom of a weed, entering joyously into the lives of simple folk. The unfolding of its bloom each year proclaims the return of June as undeniably as does the calendar. With the exception of *Lilium Hansoni*, which is unusual in that it opens the lily season early in May, the Madonna lily can be regarded as the forerunner of the many extraordinary varieties that pass in procession from the first warm days of summer until frost, with its nipping touch, is well established.

Lilium longiflorum has somewhat the same snow-white appearance of purity as the Madonna lily and can be used to continue the period of bloom wherever such an effect is desirable, since it is identified with July and August, while the season of the Madonna is June and July. Sometimes absolute whiteness is more impressive in a lily than bright color because it can be used to gain certain effects and to hold together various planting schemes. From the Madonna, the *longiflorum* is easily distinguished because its tube is more long and slender, a fact which adds to its grace.

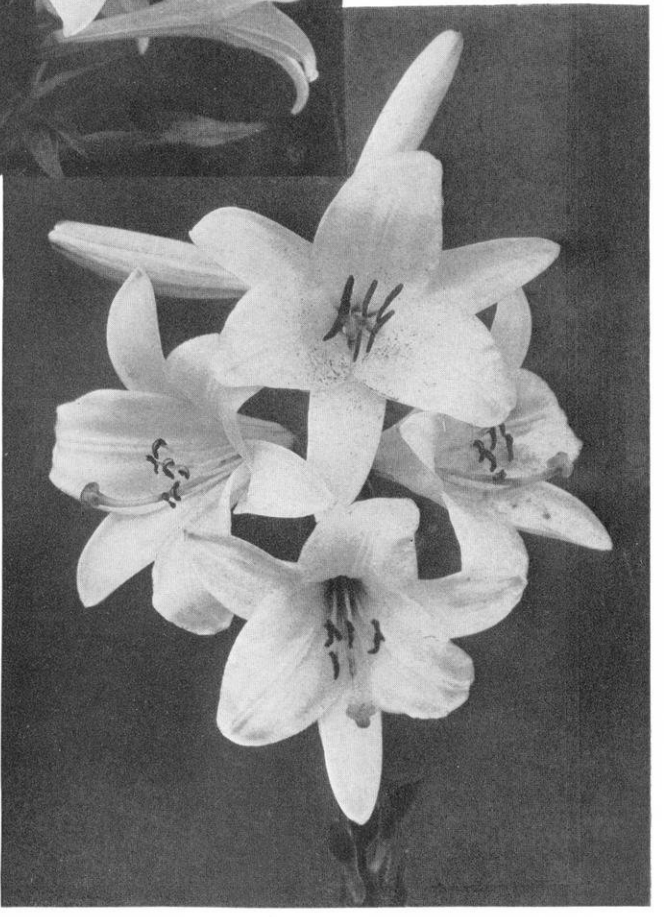
The shape and individuality of these two lilies, *candidum* and *longiflorum*, are very different from that of *Lilium elegans*, the common red lily of the garden. It has scarcely any length of tube, its petals flaring widely and its color extremely brilliant. Taken together, these points deprive it of the chasteness of expression associated with many lilies. Nevertheless, it is one that blends well with rugged types of buildings, such as bungalows, brown shingled, beside which it presents a rich and alluring contrast. It never grows higher than three feet and is of the easiest cultivation, almost abnormally hardy. Its bulbs once well set, multiply rapidly by means of small bulblets. One year a garden may exhibit a few red lilies, the next a host of them may command, through their absorbing color, the entire situation.

IT is, of course, an error to plant lily bulbs without knowing somewhat about the personality of their blooms. Many people buy such bulbs, thinking that a lily means solely their own mental picture of the flower and are surprised when the next season shows them perhaps the brilliantly red, somewhat flamboyant *elegans* instead of the saintlike Madonna. As much thought should be bestowed on the selection of lily bulbs as on the buying of rose-bushes.

Lilium excelsum is always a favorite. Its flowers are light buff and attractive, although somewhat flat, their look suggestive of sculpture. In manner of growth this variety is to be commended. Sometimes it raises itself to the extreme height of six feet and sends out as a crown of the slender stem, from three to twelve lilies nodding toward the earth. Only scapelike leaves are seen near the bloom and the effect produced is that of a shower of lilies insufficiently upheld.

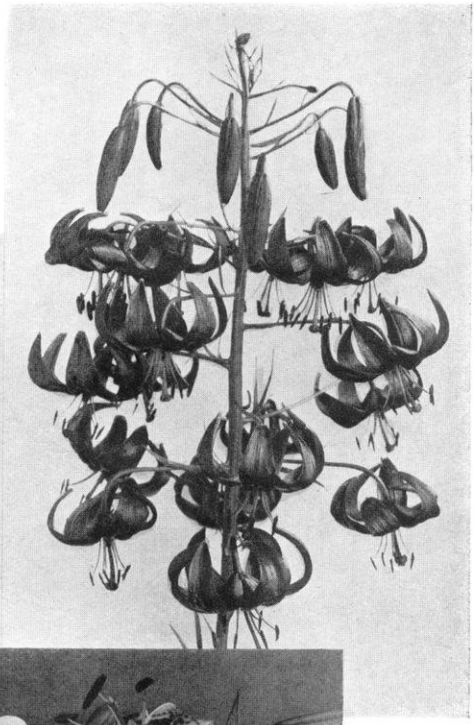
About such tall dignified lilies there is an undefined feeling that man has had to do with their construction. Yet they are much more a natural product of the garden than are roses. It is because man, from the time of the ancients, has copied their beautiful lines in architecture and sculpture besides perpetuating them in paintings that they have come to be associated with human achievements more generally than with the unconventionalized offerings of Nature.

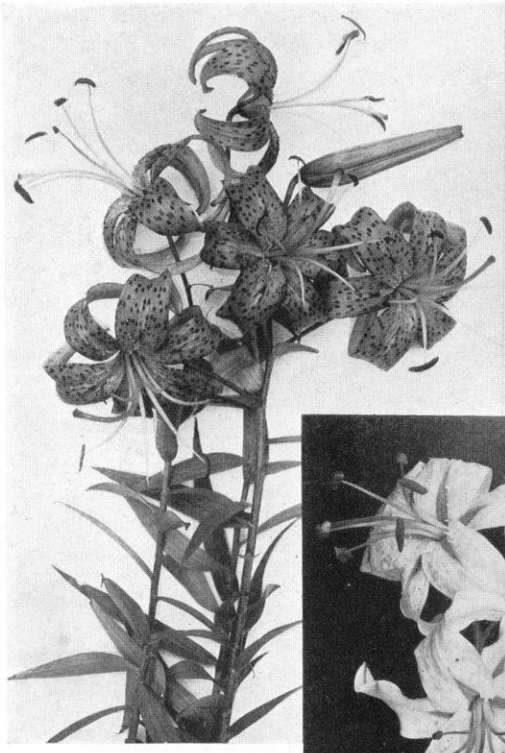
LILIUM LONGIFLORUM: FROM THIS MARBLE-LIKE LILY THE LONG POLLEN-LADEN ANTHERS HAVE BEEN PICKED, OTHERWISE THEY WOULD HAVE SHED THEIR GOLDEN DUST SO PLENTIFULLY OVER THE PETALS AS TO PRODUCE, WHEN PHOTOGRAPHED, A SPOTTED LOOK SPOILING THE FAIRNESS OF THE FLOWER.



THE MADONNA OR ANNUNCIATION LILY, THE BEST LOVED OF ALL THAT BLOOM IN JUNE: THIS LILY PREFERS THE DIRECT SUNLIGHT BUT IS ALSO WILLING TO BLOOM IN PLACES PARTLY SHADED: IT STANDS FROM TWO TO THREE FEET HIGH AND IS HEAVILY CROWNED WITH NUMBERS OF SPOTLESS FLOWERS, SHADED HERE AND THERE BY THE GOLDEN DUST FROM LONG ANTHERS. IT IS THE LILY THAT GROWS WHEREVER SPACE AND OPPORTUNITY IS OFFERED, EAGERLY EXTENDING ITS DOMAIN: ITS FRAGRANCE LURES TO IT MANY INSECT LOVERS.

THIS LILY AT THE RIGHT IS THE SIBERIAN CORAL RED LILY: IT BEARS MANY BRIGHT FLOWERS WIDELY SEPARATED BY LONG PEDICELS, EACH BLOSSOM DROOPING ITS HEAD AS THOUGH SEARCHING VAINLY ON EARTH FOR SOME LOST BEAUTY OR FRAGRANCE: IT GROWS NO HIGHER THAN TWO FEET, AN ADVANTAGE FOR PRODUCING MASS EFFECTS.



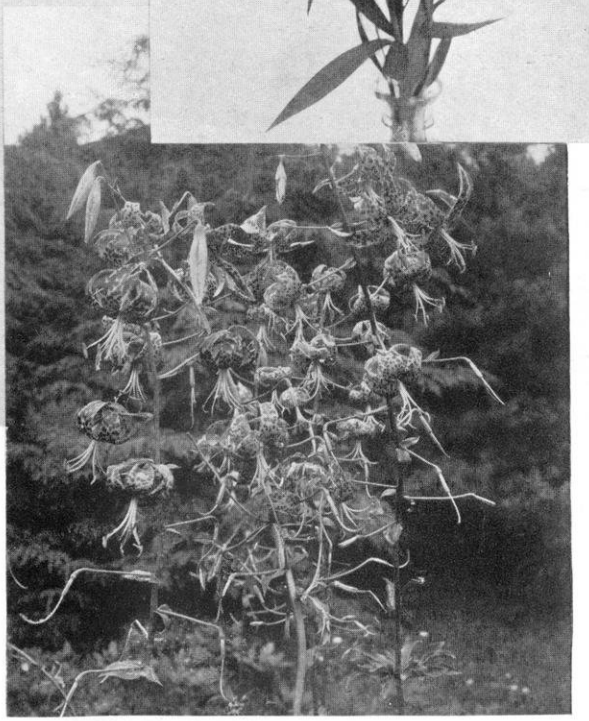


THE TIGER LILY IS AN ESSENTIAL DETAIL IN THE MEMORY OF EVERY OLD-FASHIONED GARDEN, AND IT STILL HAS THE LOVING WAY OF GROWING NEAR THE HABITATIONS OF MEN: BUT IN THE MORE DELICATE AND ARISTOCRATIC GARDENS OF TODAY IT HAS BEEN DISPLACED BY PALE-TINTED BLOSSOMS: ITS FINE VIGOR OF GROWTH AND RADIANCE OF COLOR HAVING CAUSED IT TO LOSE CASTE.

WELL GROWN EXAMPLES OF THE RED AND WHITE SPECIOSUM LILIES, THE SCULPTURAL BEAUTY OF ONE MADE ALL THE GREATER BY THE EXOTIC SPLENDOR OF THE OTHER: IT IS INTERESTING TO GROW THESE LILIES SIDE BY SIDE IN A GARDEN, NOT ONLY FOR THEIR INDIVIDUAL LOVELINESS BUT BECAUSE OF THE PLEASING CONTRAST THEY FURNISH.

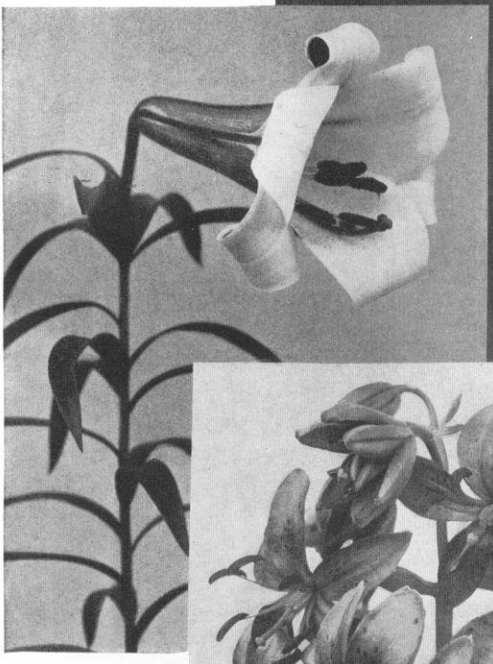
THE WILD RED OR WOOD LILY, A DELIGHTFUL FIND IN THE SUMMER WOODS AFTER THE EARLY WILD FLOWERS ARE GONE, AND WEEDS, RANK AND FEARFUL, HAVE BEGUN TO FILL WOODLAND SPACES.

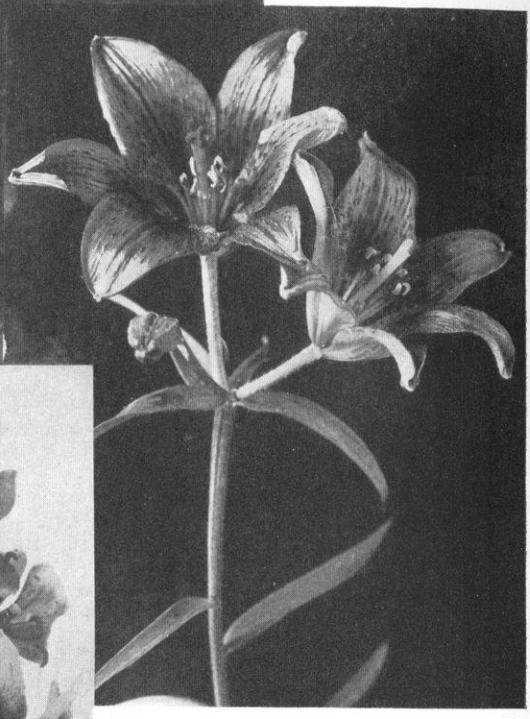
THE MEADOW LILY, PROCLAIMING THE MIDSUMMER SEASON, WHEN AS A WILD FLOWER IT BEDECKS THE MEADOWS, GROWS ALONG THE BANKS OF ROADSIDE STREAMS AND PEEPS LIKE A SHY STRANGER INTO THE EDGES OF WOODS.



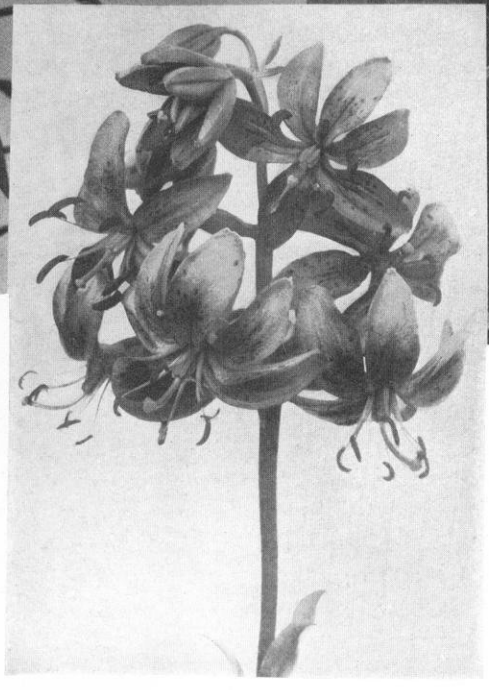
LILIUM HUMBOLDTI MAGNIFICUM, ONE OF THE TALL LILIES THAT SENDS OUT ITS BLOOM WITH AN ASTONISHING DISPLAY OF GENEROSITY: A LILY USEFUL IN ALL FORMS OF NATURALISTIC PLANTING, BEING AN IMPROVED STRAIN OF THE NATIVE VARIETY.

LILIUM EXCELSUM, RANKING HIGH IN SCULPTURESQUE BEAUTY AND WHILE NOT GENERALLY GROWN, IN ITS ADMIRERS' EYES IT HAS NO RIVALS, SINCE ITS OUTBURST OF BLOOM CROWNING A SLENDER STEM IS FULL OF BEAUTY.





THE LILIUM BROWNII, ONE OF THE MOST DELICATELY "MODELED" OF ALL THE LILIES AND MOST EXQUISITELY "PAINTED," A LILY ADMIRABLE FOR POT CULTURE AS WELL AS FOR OUTDOOR PLANTING.



LILIUM HANSONI, WHICH FORMS WITH BROWNII AND EXCELSUM, A REMARKABLE GROUP, ITS EARLIER BLOOM ACTING AS A FORERUNNER OF THEIR GLORY.

LILIUM ELEGANS, AN EFFECTIVE RED LILY FREQUENTLY CHOSEN TO GIVE BRIGHT SPOTS IN A GARDEN WHERE COLOR HAS VANISHED WITH THE PASSING OUT OF BLOOM OF OTHER FLOWERS: IT ALWAYS GIVES A BOLD DECORATIVE EFFECT AMONG THE GREENS OF DIVERSE SHRUBS AND IS PARTICULARLY DESIRABLE AS A PICKING FLOWER TO GIVE A VIVID NOTE INDOORS.

THE INDIVIDUALITY OF LILIES

One of the most satisfactory and the earliest to bloom of the garden lilies is *Lilium Hansoni*, opening in May and continuing throughout June. In shape its flowers are unusual being devoid of any tube and the petals not unlike orchids in texture. Many blooms are produced at the top of a tall stem, catching immediately the eye since they are of a clear lemon yellow. With them garden builders gain many pleasing effects, especially by grouping them in among *Azalea mollis*, which sets free in May a wealth of bloom gorgeous in every tint of the sunset from lemon yellow to flaming scarlet. No lilies are easier to grow than *Hansoni*, which as far as is known is less generally planted than it deserves.

Lilium Brownii, also a Japanese introduction with immense trumpet-shaped flowers, pure white inside and reddish brown outside, showing besides anthers covered with brown pollen and leafage that gracefully extends the full length of the stalk, is another one of the highly attractive lilies less seen in simple gardens than its pleasing type of beauty would warrant. Planted in connection with *Lilium Hansoni* and *excelsum* it forms a group lasting in bloom throughout the late spring and summer, forming a combination in tones of yellow, buff and brown, capable of abetting numerous color schemes. The *Brownii* is also making its way as a favorite for pot culture. For this purpose it is as adaptable as the time-honored Calla lily. In fact, it has somewhat the same sculpturesque quality as the Calla, while its color makes it less glaring in rooms which do not welcome pure white.

THE lily most closely associated with American gardens of the last generation is the tiger, *Lilium tigrinum*. To the mind of all it comes back readily, its orange-red petals recurved and spotted darkly from base to tip; its color as a whole strong, distinctive and a bit trying. But in this country it was early beloved as the lily of domesticity. Once planted about a dooryard it invariably extended its domain growing as close as possible to the porch or windows of the house. Even when the homestead was forsaken and the garden given over to waste, masses of tiger lilies returned each season to bloom as if in remembrance of the time when the spot was inhabited, the windows of the house curtained and the merry voices of children bestirred the summer air. Once, before a house that had been burned down, its black shell remaining gaunt and hopeless against the sky, a great mass of tiger lilies, impervious to the desolation of the place, sent out with the return of August a message of days that had gone, to every passerby. Indeed, whenever the bulbs of the tiger lily settle comfortably into a spot that suits them in soil and location, they are as difficult to exterminate as the most determined of weeds.

THE INDIVIDUALITY OF LILIES

In the more up-to-date gardens the beautiful *speciosum* lilies, especially the red, *rubrum*, and the white, *album*, varieties have been found to be more satisfactory than the familiar "tigers." Their colors are less jarring, while the large size of the blooms has given them a place of honor among the best examples of lily planting.

The most gaily colored of all lilies is the lovely coral Siberian example, *Lilium tenuifolium*. Its particular shade of coral red is unusual among plant life and as its maximum height is not more than twenty inches it can be used advantageously for mass effects in places where brilliant color is desired. It should be planted in considerable numbers as it is highly attractive for picking as well as for out-of-door decoration.

In gardens made up of wild flowers or throughout strips of naturalistic planting the lilies that have been mentioned appear not nearly as appropriate as the more simple types native to this country. Clustered in among green wildlings, ferns and foliage plants, the wild red lily, *Lilium Philadelphicum*, appears like a vagrant flame. It is a lily of unconventionality, holding its flowers uprightly, tapering its petals toward the base. It does not grow very tall, neither is it very large. Its native haunts are woodsy places where it causes surprise to the flower gatherer finding it for the first time.

The meadow lily, *Lilium Canadensis*, drooping like a bell its small yellow head, never occurs in the dense woods, but opens in the meadows in the warmth of uninterrupted sun.

The Turk's-cap lily, *Lilium superbum*, which recurves its petals in such a way as to have suggested its common name is probably the most magnificent wild flower that grows,—at least in the northeastern part of the United States. As many as forty flowers are sometimes borne on one stalk. It has attracted flower gatherers as well as nurserymen from far and wide until today it is seen as a garden plant more frequently than in the wild.

Lilium Humboldti magnificum, another native of America, is also generous in its bloom, standing erectly some five or six feet. Through the force of its individuality it seems to proclaim its own worth, perhaps in subtle opposition to the long list of foreign lilies that have so completely invaded and captured American gardens.

Since these lilies have established their kingdom on American soil it is well to bow before them in gratitude, for there are no other plants that can take their place in the garden or produce their particular effects. Hollyhocks approach nearest to them in ability to abet landscape pictures, although they are in the main without the classic lines of beauty which give to lilies their sculpturesque individuality.

FAIRY MUSIC: BY GRACE HAZARD CONKLING

To Elsa and Hilda:

O YOU shall play a seaweed harp,
And you, a beechnut violin,
Till your thin music silver-sharp
Invites the vagrant fireflies in.

And you shall play a moonbeam flute,
And you, a mullein-stalk bassoon,
Till all the crickets gather mute
To criticise beneath the moon.

And you shall play the shepherd horn
That calls white fancies home like sheep:
And you, the oboe all forlorn
That Oberon gave you to keep.

For you will both be fairies then:
And one shall sound a coiléd shell
To pilot fairy sailormen,
And one shall ring a crystal bell.

And you with yellow hair will need
A willow whistle cut at dawn:
But *you* shall play a river-reed
Like any little nut-brown faun.

And Syrinx will forget to flee,
And Pan, what mischief he had planned:
And she with you will dance while he
Pipes up the moon of Fairyland.

NEW YORK'S WASTED ACREAGE: THOUSANDS OF UNUSED ROOFS WHICH MIGHT BE CONVERTED INTO PLAYGROUNDS AND BREATHING SPACES FOR THE PEOPLE

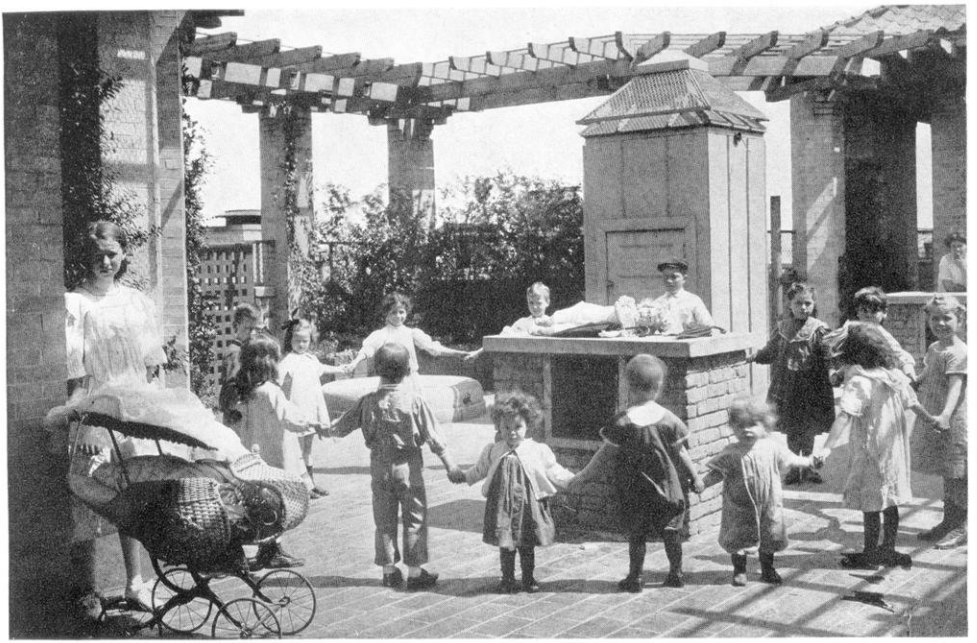
HE scarcity of playgrounds and recreation centers in New York City and the lack of space to provide them have aroused discussion for some time past. It seems strange that over the heads of the people and all about them, apparently unnoticed, has been a solution of the problem. For the roofs of buildings in Manhattan and the Bronx present approximately nine thousand three hundred and fifty-nine acres of unused space, a vast territory that might be turned to good account at comparatively little expense and without devoting a bit of precious ground space to a project that would return no monetary interest. To be sure, any undertaking that tends to conserve the health and well-being of growing boys and girls and at the same time protects them from the dangers of the streets is important, but this sort of dividend is paid in coin that until lately has not been considered very valuable.

There are a few roof playgrounds in New York City, but their number is pitifully small in comparison with the needs of the five million inhabitants who either swelter on doorsteps and in the streets in the suffocating heat of summer, or huddle together in badly ventilated, often ill-smelling rooms in winter time in an effort to escape the biting cold.

Every great city in which industrial conditions compel the people to herd together in contracted quarters faces some problem of housing and recreation facilities. But in New York City there is a degree of congestion that is unparalleled elsewhere among the civilized nations. In no city of Europe, or even in the Asiatic cities of Bombay and Canton, do such living conditions prevail as in twentieth-century cosmopolitan New York. Nowhere else is the working population housed in tall tenements that cover two-thirds of the area of the blocks built upon, and so designed that they exclude most of the light, air and sun from the narrow canyonlike streets.

On the lower East Side of New York only one-third of the total area of the land is available for streets and parks, and the latter are so few as to be almost a negligible quantity. This degree of congestion is much the same in various parts of the city, except in the more crowded sections, as in Rivington Street, where there are from two to three thousand people—the population of a good-sized village—massed in a single block.

In the streets of New York three-quarters of a million children

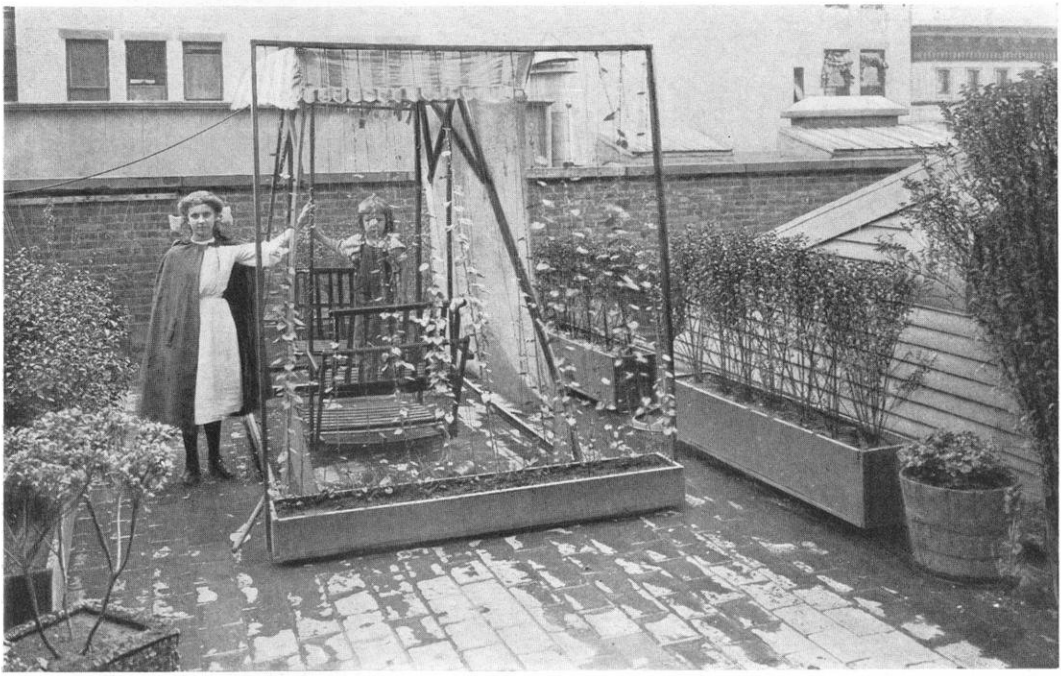


Photograph by Helen D. Van Eaton.

Photograph by Jessie Tarbox Beals.

PLAYGROUND ON THE ROOF OF A CITY APARTMENT HOUSE: THE PERGOLA WILL SOON BE VINE-COVERED.

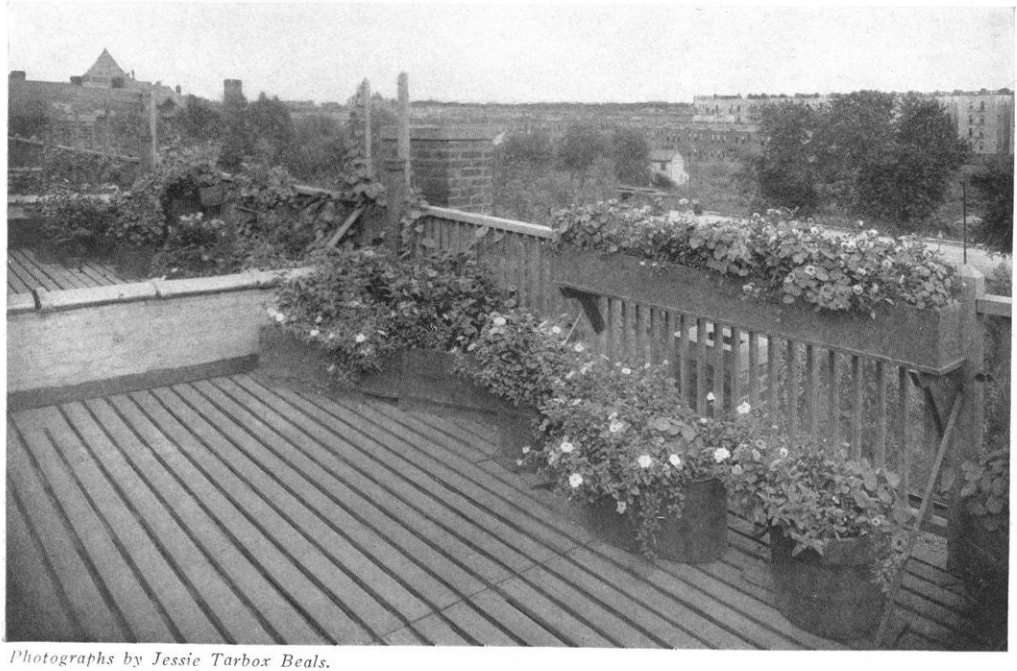
THE SUNFLOWER GARDEN ON TOP OF THE ROOF OF A NEW YORK OFFICE BUILDING.



Photographs by Jessie Tarbox Beals.

A NEW YORK ROOF GARDEN WHERE CHICKENS ARE RAISED CHEAPER THAN MARKET PRICE, ALSO FLOWERS FOR THE TABLE.

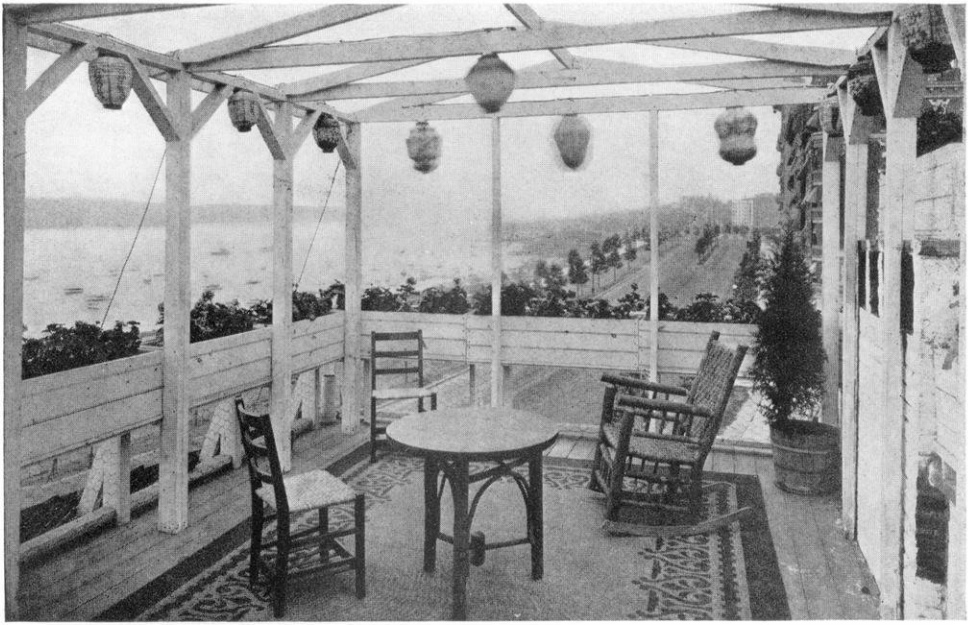
WHERE CHILDREN ARE THE GARDENERS ON TOP OF AN OFFICE BUILDING.

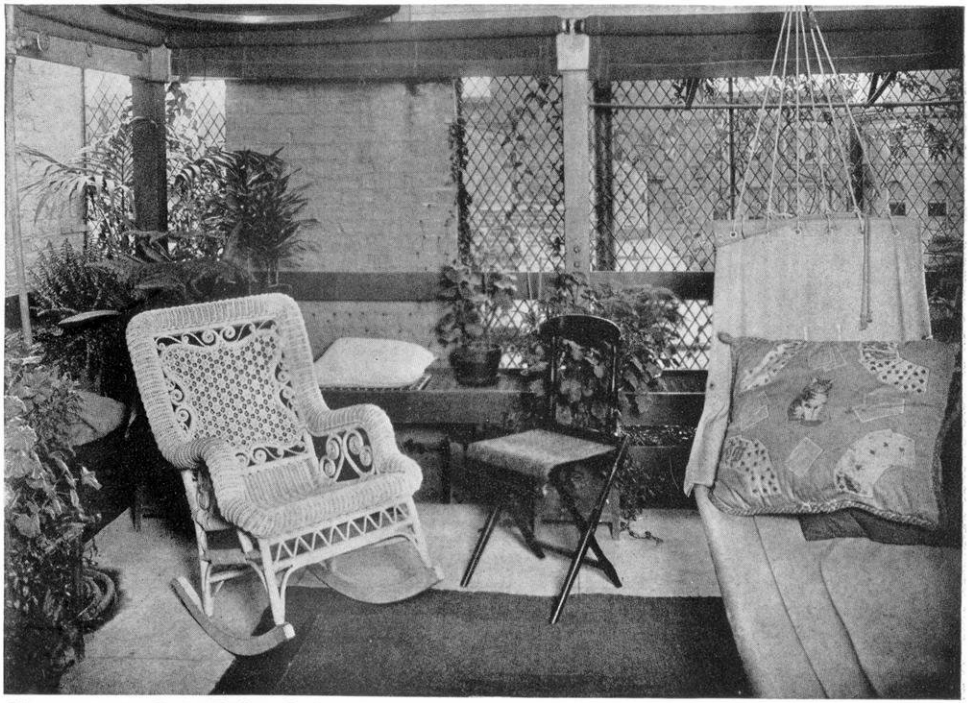


Photographs by Jessie Tarbox Beals.

THE PLAYGROUND ON THE ROOF OF A PRIVATE HOUSE IN NEW YORK: ALSO A CHARMING PLACE FOR FIVE O'CLOCK TEA AND DANCING.

THE BEGINNING OF A FLOWER GARDEN ON TOP OF A CITY HOUSE.





Photographs by Jessie Tarbox Beals.

MR. WILBUR DYER'S ROOF GARDEN IN NEW YORK CITY, WHERE THERE IS ALWAYS A REFRESHING BREEZE.

A ROOF GARDEN FOR A PRIVATE DWELLING IN BROOKLYN.

find their only opportunity for breathing fresh air and an outlet for the play spirit which is an essential part of the life of every normal boy and girl. The attempt to curtail this activity without supplying something better for the child means retarding intellectual and moral growth, and thus the lack of space in which children can play has become one of the most vital problems of the metropolis.

BECAUSE of this great need of a wider field for open-air diversion the effort to establish roof gardens and playgrounds on the tops of tenement and school buildings is particularly timely. Schoolhouses offer special advantages for this purpose, as they present a considerable area of available roof space; it is readily accessible and the buildings are seldom more than four stories high.

The public schools exert a potent influence upon the people, and the school buildings in Greater New York, of which there are five hundred and seventy-seven, can in this one way alone be used as a powerful lever to lift the people in the direction of right outdoor living. A wise example would be set by a system of organized school-roof playgrounds and recreation centers designed to provide wholesome play for children and amusement facilities for adults.

To put through any far-reaching system of play space of this nature would mean, of course, the remodeling of the greater number of city roofs. This is relatively a simple step. The two essentials for the successful adaptation of almost any roof for this purpose are a flat tile flooring for the roof, laid with an imperceptible slope toward the center to allow for drainage, and a wire cage over the top. All else, such as seats, hammocks, canopies and other accessories, are matters of personal choice.

The school roof can be used as an open-air classroom and athletic field as well as a recreation spot. Classwork can be carried on by the use of portable tables and chairs. After school hours the roof can be cleared so that the children may have healthful exercise in the fresh air, and under the supervision of a competent director the space can be arranged for games, athletics, folk-dancing, gymnastics, etc. At night the roof would be available as a recreation center for the community.

Boys and girls whose days are spent in shops and offices would find high up in the air opportunities for wholesome and healthful entertainment, such as dancing, concerts and moving pictures, and these would tend to discount the lure of the dance hall.

Incidentally, a wise development of roof-garden plans might also help to break up the gangs which terrorize so many neighborhoods in New York. Nearly all of these lawless bands are recruited from the numbers of idle youths who now have no better place to congregate

than alleys and street corners. In a more healthful environment and under competent though unobtrusive direction their natural inclination for adventure might seek an outlet through rational exercise.

In addition to the school buildings, the tops of tenement houses could be made over for the benefit of the tenants. As soon as the gardens on the roofs were taken advantage of the congestion on the streets would lessen materially. The dwellers in tenements are never slow to make use of and enjoy facilities for getting a breath of fresh air, and would need no urging to spend the hot summer evenings away from the almost unbearable heat of stuffy rooms.

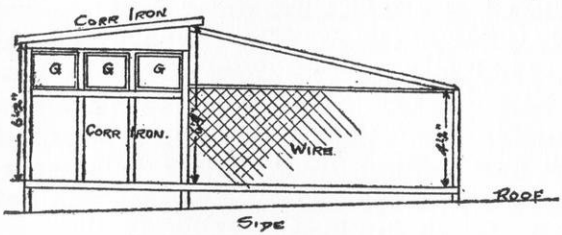
Apartment houses and private dwellings in the less congested quarters of large cities offer excellent opportunities for the construction of roof gardens. The idea has found favor in many cities, and from as far west as San Francisco the writer of this article has received inquiries as to the cost of installing a roof garden. An inexpensive sun parlor and playground can be built on almost any city roof for one hundred and fifty dollars. This sum would include a wire fence that should be fastened to the parapet as a safeguard and a light wooden flooring to protect the tin surface from damage. The sun parlor should be built of galvanized iron and enclosed on three sides with large windows which can be raised in bad weather. Sand-boxes, swings and a gymnasium outfit would complete the equipment. The problem of providing fresh air for babies and children in cities may be successfully solved in this way, as on the roof the little folk can be kept out of doors without danger practically all day long.

ST. LOUIS has a spacious roof garden and playground on top of a church building; in both Cleveland and Philadelphia the roof spaces on the municipal buildings have been utilized for this purpose, and there are about twenty-five private roof gardens in New York, Boston and nearby cities. These vary from the simple garden-plot supplemented by flower-boxes and reclining chairs to the more elaborate types of luxuriously furnished, steam-heated roof gardens costing as much as nine thousand dollars for all-year use. An ingenious resident of one city built his garden among the chimneys to resemble the porch of a boat-club house. It commands a river view of several miles, is well shaded and furnished with rugs and chairs and hung with Japanese lanterns—an ideal haven of rest. An institution for higher education near New York has on top of its five-story building a running track, a tennis court and baseball diamond.

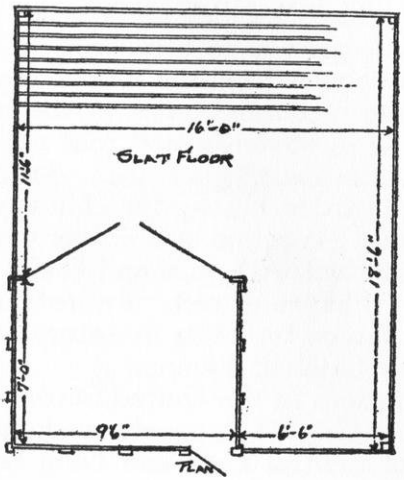
One of the largest private roof gardens in the United States is on top of an apartment house in New York City. It is nearly one hundred feet square and commands a view of Central Park and Long Island

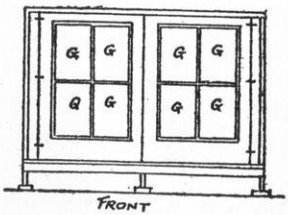
Sound. Both children and grown people find diversion on its airy spaces. Along the tops of the parapets are flower-boxes filled with an effective combination of plants. Flowers whose colors blend harmoniously and whose habits are well adapted to the unusual conditions imposed by the placing of the roof have been selected, and marigolds, white and yellow pansies, yellow nasturtiums, white petunias and bachelors'-buttons make a very pleasing color scheme. Each box furnishes root space for several slips of English ivy and morning-glories; honeysuckles and moon-flowers are trained to grow on trellises. Tall shrubs, palms and ferns in green painted tubs compensate for the lack of trees and help to provide the background necessary for good effect.

Throughout this garden in the air rustic seats, reclining chairs and rockers are distributed in shady corners, and there is a portable rustic summer-house where the children may play when the sun is hottest. A portable swing has also been provided, and an awning-covered hammock is suspended between stout upright posts. A comfortable couch in a shady secluded corner is an inviting place for an afternoon siesta.



There are goldfish in the miniature aquarium in the center of the roof, and a bird-house and pigeon-cote have been built in another corner by the youthful members of the families who use the roof. Every afternoon the pigeons are let out of the cote, and they sail high over the roof in great circles, keeping close together and finally returning to their nesting place at feeding time.





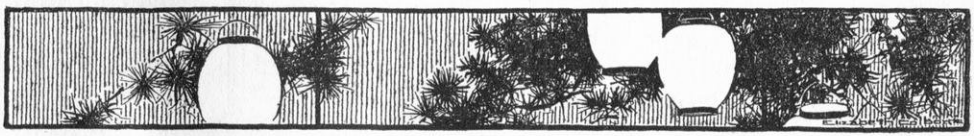
PLAY GROUND FOR ROOF OF CITY RESIDENCE
SCALE 1/4" ONE FOOT

During the summer months many even-

ing entertainments take place on this roof. Japanese lanterns and bunting are hung about the garden to furnish light, color and a festive appearance, and the summer-house makes a practicable stage for amateur theatricals and jack-o'-lantern shows. Once the charm of such a garden is felt by those fortunate enough to have access to it the diversions offered by pleasure parks and summer theaters grow less inviting.

A FEW roof gardens have been turned to utilitarian account. A resident of Boston has converted his housetop into a fairly productive garden, where he raises a variety of vegetables for his table all summer long. On the roof of a large commercial building in lower Fifth Avenue, New York City, is a chicken hatchery, as well as a garden and children's playground. Several coops have been built to accommodate the fowls and a number of oblong boxes are filled with plants. In this miniature "sky farm" the children of the superintendent of the building experience some of the delights enjoyed by their country cousins, as they tend the chickens, gather the eggs, water and weed the flower-boxes and frolic on a playground that boasts what is rare in a city,—an abundance of fresh air and sunlight the year round. The hens supply fresh eggs daily, at a cost far below the market price for such delicacies, and the garden boxes provide the family with lettuce, radishes, onions, parsley and tomatoes during the spring and summer months.

A practical utilization by city folk of the thousands of unused acres of space on the tops of their houses cannot but result in promoting the happiness and comfort of young and old, and if architects and builders would bend their energies toward the general introduction of roof gardens for city houses, some interesting suggestions for outdoor living would surely be evolved.



THE FEDERAL GOVERNMENT TO PROTECT MIGRATORY BIRDS: BY T. GILBERT PEARSON

SOME of the most terrific legislative battles which have been fought in this country for bird protection have been waged about the subject, "May wild fowl be shot in springtime?" When the wild water-fowl desert the Southern waters and start on their journey to the Northern nesting grounds, they present most tempting marks to the gunners in almost every rural district in the United States. When along in March the farm boy runs breathless to the house with the announcement that a company of mallard ducks is swimming in the pond down below the pasture, the average farmer yearns to take his gun and creep along the rail fence toward them.

When some day in early April the man on the street hears a soft trumpeting *honk* falling sweetly as a bugle note from the clouds above, and looking up sees an old gray gander leading his pulsating triangle toward the frozen pole, something clutches at his heart and his fingers tingle to grasp his breech-loader and hie away by the night express to the St. Clair Flats, the Great South Bay, or the tumbling waters of the Chesapeake. So universally is this call felt by men in whom the hunting instinct is strong that many were the years that elapsed before even scant heed was paid to the vigorous protests of men and women who cried out that shooting at this season must cease. Today it is a generally recognized fact that many wild fowl mate for the season while in Southern waters, and to break up mated pairs by shooting during spring migration is highly detrimental to the welfare of the species.

To put an end to the destructive effect of killing wild fowl at this season, bird protectors earnestly recommend the passage of laws which will keep the gunners from enjoying, as hitherto, the sport of shooting the feathered life of ponds and bays. Yet strange as it may seem to the bird protectors, the legislator does not always heed their advice, possibly for the reason that while fifty earnest bird lovers are urging this measure, there are five thousand other constituents who by their protests and actions say: "Do not prevent us from killing all the ducks we can, although this may mean that our sons will know nothing of the joys of wild-fowling when they are grown."

However, so insistent have been the members of the Audubon Society and the more conservative sportsmen that many State legislatures of recent years have yielded to the constant importuning of the conservationists and have enacted laws for the spring protection of wild fowl. Thus, in many of our Northern States today when the grass is greening and the bluebird is whistling in the orchard the mal-

lard may alight with impunity on the farmer's pond and the wild goose may float in safety along his aerial pathway. Although many anti-spring shooting laws now lie inscribed on the statute books, few of them are suffered to repose in peace, for whenever a legislature assembles, as for example in New York State, one of the ills that we always have to face is the epidemic of spring shooting bills introduced by representatives of the people in response to the wishes of the bird-killing element back home. Their coming is as regular as Christmas every year. To the legislature we go—both sides are represented, the same old arguments are used, both sides publish letters, editorials and news items on the merits of the controversy. By a slender majority the legislature finally kills these bills, and the bird protectors sigh with relief, well knowing however that the same programme will have to be gone through with another year, for, like *Banquo's Ghost*, spring shooting bills will not down.

In the minds of bird protectors there has been growing the keen desire to be relieved from these ever-recurring efforts of game slaughterers to take protection off the remnant of our wild fowl life.

THE Honorable George Shiras, Third, member of Congress from the State of Pennsylvania, advised the country in the year nineteen hundred and four that he had a remedy which would cure this trouble once for all. His plan was to have Congress pass a law which would give to some department of the Federal Government the authority to make regulations regarding the seasons when migratory birds might be killed, and take the matter entirely out of the hands of the State legislatures. He reasoned, and reasoned rightly, that not only are our Federal statutes usually held in greater awe by the general public than our State laws of a similar character, but that regulations legally provided by a department of the Government would apply to a wide section of country and would not be so liable to attack as would be the various State laws on the subject. He, therefore, introduced a measure in Congress which provided for the Federal control of migratory game birds. The bill was referred to the House Committee on Agriculture for consideration, where it reposed until in the fulness of time it was gently, but effectively, chloroformed.

Four years later, or to be exact on December eighth, nineteen hundred and eight, Hon. John W. Weeks of Massachusetts introduced a very similar bill in the lower House of Congress. Nothing came of this, however, and on May twenty-eighth, nineteen hundred and nine, he presented another measure, the declared object of which was "to protect migratory birds of the United States." This differed from his first attempt in that the word game was omitted so the bill thus

sought to extend protection alike to migratory game and insectivorous birds. This change had been made in response to the earnest solicitations of Mr. William Dutcher, President of the National Association of Audubon Societies.

Securing the passage of a Federal law is usually a long operation and the present case was no exception to the rule. This bill, like hundreds of other germinating laws, died on the calendar at the end of the Sixty-first Session of Congress.

Mr. Weeks was persistent, and on January sixth, nineteen hundred and eleven, presented his third bill on the subject. It provided for the protection of all migratory game birds and all insect-eating birds which migrate from one State to another. Others now began to show an interest in the subject. Two additional bills of the same general character were introduced in Congress this year. One of these appeared in the House, fathered by Mr. Anthony, and the other in the Senate was presented by Senator McLean. The Anthony bill was later withdrawn, but the McLean and Weeks bills, which were soon made identical in wording, were pushed with the utmost vigor.

THE story of how the campaigns were inaugurated and conducted in their behalf by the bird lovers of the United States is a long one. It would include accounts of how State Governors and legislatures were appealed to, and not without results, and asked to send resolutions to Congress endorsing these bird protective bills; how sportsmen's organizations by the hundreds passed resolutions on the subject and sent them to their Representatives in Congress; how zoological societies and scientific bodies bestirred themselves in the matter, and how Audubon societies throughout the Union despatched thousands of letters and telegrams to Senators and Congressmen.

Just before the end of the last session of Congress, the combined bill passed, and one of the last official acts of President Taft on March fourth, nineteen hundred and thirteen, was to sign the bill and make it a law.

Now, what does the Weeks-McLean Law propose to do and how will it help save the migratory birds? It is a very remarkable document. First, it provides that "all wild geese, wild swans, brant, wild ducks, snipe, plover, woodcock, rail, wild pigeons, and all other game and insectivorous birds, which in their northern and southern migrations pass through or do not remain permanently the entire year within the borders of any State or Territory, shall hereafter be deemed to be within the custody and protection of the Government of the United States, and shall not be destroyed or taken contrary to regulations hereinafter provided therefor."

In the second paragraph the law states "the Department of Agriculture is hereby authorized and directed to adopt suitable regulations to give effect to the previous paragraph, by prescribing and fixing closed seasons, having due regard to the zones of temperature, breeding habits, and times and line of migratory flight, thereby enabling the Department to select and designate suitable districts for different portions of the country, and it shall be unlawful to shoot or by any device kill or seize and capture migratory birds within the protection of this law during said closed seasons, and any person who shall violate any of the provisions or regulations of this law for the protection of migratory birds, shall be guilty of a misdemeanor, and shall be fined not more than one hundred dollars or imprisoned not more than ninety days, or both, in the discretion of the court."

A careful reading of the above will show that this new Federal law gives the Agricultural Department authority to make and enforce regulations regarding the seasons when migratory birds can be killed, but the Department is here given no authority in the matter of prescribing the character of guns or other destructive devices which may be used in killing wild fowl, nor has it anything to say in regard to "dusking" ducks, night shooting, shipment or sale.

As the great mass of insectivorous migratory birds are already protected by State laws in most parts of the United States, and as there is no "open season" for their killing, these facts automatically remove such birds from the operations of the Weeks-McLean Law. The birds to be benefited by its operations are confined almost entirely to wild ducks, geese, rails, plovers, snipe, woodcock, sandpipers and a few other species which, while protected in the Northern States may be shot as game in the South. This latter list is very brief, the chief members of which are the robin, meadow-lark, mourning-dove and bobolink.

AT the present time the officials of the Bureau of Biological Survey, to which the Department of Agriculture has intrusted the delicate duties of preparing the preliminary details for the regulations to be adopted, are very much engaged in gathering data and in sounding public sentiment. These Government officials have already been having discussions and holding informal hearings with sportsmen's clubs, Audubon Society workers and others who have opinions to express as to the boundaries of the zones wherein migratory game birds can be killed, and at what seasons they should be taken.

Probably several months will yet elapse before a working code of regulations shall have been prepared, adopted and promulgated. It is

hardly probable that these new rules will take effect before next spring. While the sum of only ten thousand dollars is appropriated by the Government for carrying out the provisions of this law, we may expect a much more adequate and far-reaching enforcement than might naturally be expected from the expenditure of so small a sum for such a gigantic undertaking. This will be because of the hearty coöperation of the various State game commissions and the State warden systems in operation at the present time.

After the new regulations have once become operative and the people have commenced to see the good which will undoubtedly come from this law, Congress will unquestionably provide the necessary means for making the Weeks-McLean Law a factor of great importance in the matter of the preservation of the migratory birds of the country.

As is to be expected, there are to be found here and there men who talk knowingly of the unconstitutionality of this new Federal law. For many years the writer has been actively engaged in legislative work for bird and game protection throughout the United States, and has long since become familiar with this class of objectors. I do not recall ever having appeared before a legislative committee in the interest of an important bill for bird protection but what there was someone present to raise a question as to whether the law under discussion would not prove to be unconstitutional. This, however, is a matter with which we need not concern ourselves at the present time. That question can very well be left to the courts, and when we take into consideration the liberal construction which they have placed on various conservation laws of late, we need have little fear for the ultimate fate of the National Migratory Bird Law.

THE PUEBLO SINGER: A BIT OF NATIVE AMERICAN HISTORY: BY NATALIE CURTIS

I HAD slept all night in the open air under the starlit sky of New Mexico. Although it was July, and the midday sun burned hot, the nights were of crystal coolness and the altitude gave to the air at all times an invigorating sparkle. The morning light touched the cliffs and buttes with delicate tints of lilac and rose; though later in the day the colors of this desert land became dazzlingly brilliant. I was on my way to the pueblo of Laguna, one of the Indian towns first discovered by the Spaniards in the sixteenth century. The trail was a deep groove in the living rock, worn by the tread of countless moccasined feet; and though the morning was still early, the way was dotted with Indian women, their earthen jars on their heads, going to the springs. The white walls of the village above us glistened against the blue sky like a fleet of sails on a summer sea. The shaded gold of the desert stretched away on every side, broken by a flash of green where the Rio Grande spread fertility through the valley. An ox cart rumbled by, and a group of Indian men passed me on the way to their fields, the same fields that these pastoral and agricultural people have tilled for centuries. The village was awake, for with nature-people day begins at dawn.

I made my way through the streets and courts of the old town and across the dance-plaza till suddenly I paused, caught by the tones of a strange and lovely melody that rose high above the scraping sound of corn-grinding in a house nearby. I knew the house; the woman who lived there was my friend and I had often visited her to listen to the songs with which the Pueblo Indian women lighten their hard labor at the grinding-bin. The unusual intervals of this song and a certain archaic outline of melody fascinated me; and as I entered the house, my friend looked up from her work with a smile.

"This is a grinding song for the morning hours," she said in response to my query.

"How so, for the morning hours?" I asked.

"Why, of course, we have different songs for the different times of day," she answered, simply. "We begin to grind at dawn and the first song we sing as we grind says: 'The Sun-Youth and his brothers (the sunbeams) now go forth from the east. Go we forth with them.' After that we sing:

'Southeast, Northeast,
Flying all around,
Thus sings the wren her morning song,

Hi-o, hi-o,
Always in the early morn
Singing of the maiden corn.'

"The maiden corn-plants are the young plants before they bear fruit," she explained.

"And what are the other songs?" I asked.

"Oh, as the day goes on we sing of the clouds that gather to bring the rain that helps the corn to grow, and later we sing how the corn is blossoming and the butterflies are playing among the flowers:

'Flowery butterfly of the East,
Flowery butterfly of the East,
O-ho, ho-wa,
Fly to the blossoming plants,
Yellow and blue corn,
Fly to the blossoming plants,
Red and white corn,
Fly to the blossoming plants,
Flowery butterfly of the East!'

You see our corn is of many colors. We always sing of four colors like the four directions, north, south, east and west."

"And then?" I queried, as she paused.

"Then still later in the day we sing of the ripe corn, and at last at evening, when the corn is ground, we sing how all is finished now, and the meal is heaped high in the baskets."

She stooped to her grinding again—"So we have a song for every time of day," she said, as she bent over her work. The grinding-stone flew swiftly up and down, she hummed a soft refrain and then broke again into song.

So, like the Hindus, whose "ragas" belong to certain seasons of the year, this brown-skinned child of nature had "a song for every time of day," and the rhythm of her grinding-stones seemed in tune with the turning of the planet. I thought of our complex city life, and of the songs of the paid singers to whom we listen when our day's work is *done;* singers whose art, with all its beauty, is yet but a gaslit luxury for a few. And I had a new respect for this Pueblo woman who awoke with the sun and toiled with the sun and sang with the sun, all her life in harmony with the cosmic world about her. And as I trod the trail again on my way back to the settlements of the white people I thought that I should scarcely find in all civilization a happier song "for the morning hour" than the one my friend had sung: "The Sun-Youth and his brothers now go forth from the east. Go we forth with them!"

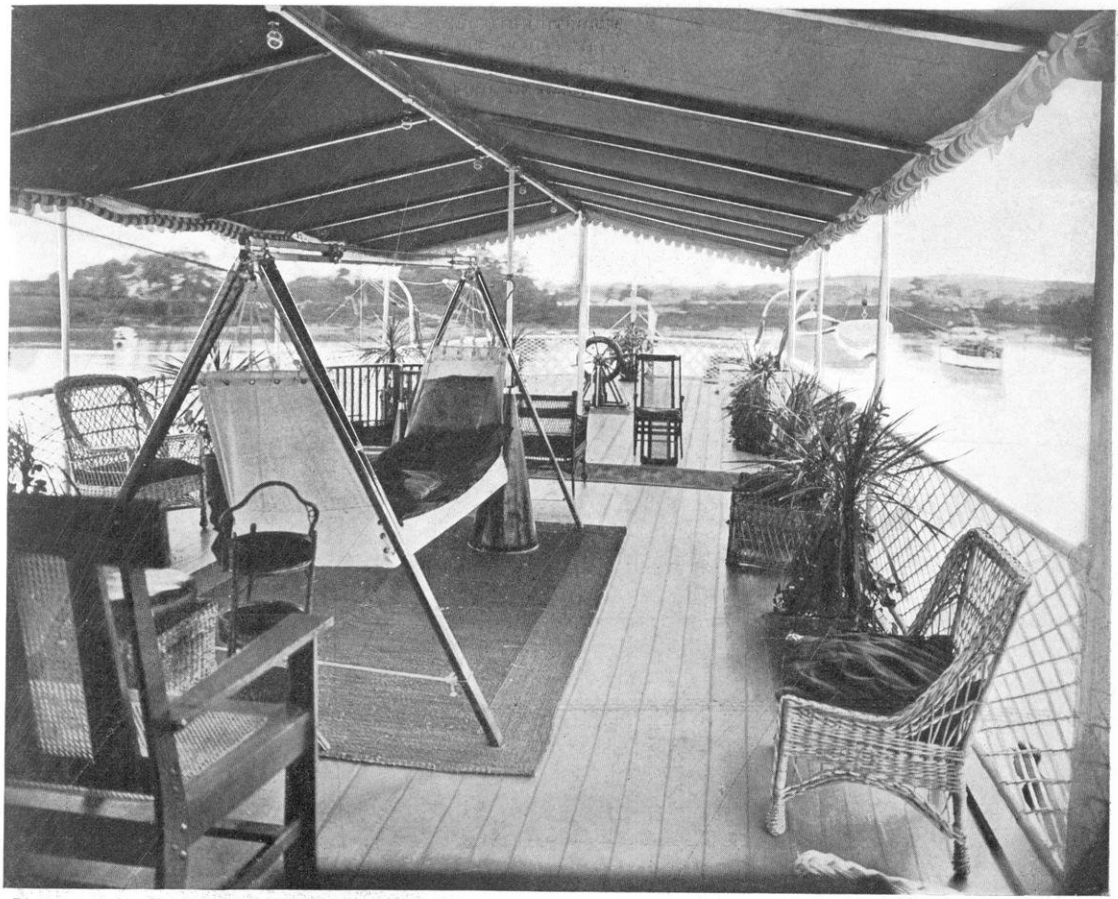
VACATION DAYS ON A HOUSEBOAT: THE DIVERSITY OF PLEASURE AND COMFORT TO BE ENJOYED: BY BEATRICE GRISWOLD

LIFE in the open air, especially in the summertime, is nowadays recognized as an essential rather than a luxury. Some parts of our country, particularly the East and Middle West, are unbearably hot for a few months each year, and many plans have been evolved to obtain for the inhabitants of the sun-baked regions the benefits of cool, refreshing breezes, opportunities for undisturbed rest at night and relaxation from the trials of close sultry days. The exodus from the cities usually begins as early as the circumstances of individuals permit, and the call of the sea or the mountains is eagerly answered by those who may heed it, and stifled as much as possible by those who must ignore it.

The possession of a mountain camp or a seashore bungalow is no longer considered an unattainable luxury by people of moderate means, for life in this fashion has been simplified to such an extent that, after the first cost, it affords a much cheaper and more restful way of spending a summer than can be found at even the simpler summer resorts. Another vacation plan that is perhaps not appreciated as much as it should be is to spend the hot days on a houseboat, which can include in its equipment most of the comforts that can be obtained for any other informal country shelter, and at the same time acquire for its occupants opportunities for water sports and pleasures. There is another advantage enjoyed by houseboat dwellers: It is not necessary to spend the whole vacation time in one place, for the moorings can be slipped at will and the floating house can find anchorage in almost any spot that appeals to the skipper and crew. There is usually a breeze stirring on rivers and lakes, and few nerves will refuse to be soothed and rested by the lap of water against the sides of a boat.

A houseboat anchored within easy reach of a man's business might solve the problem of obtaining for him comfortable nights and recreation all summer long, and a vessel of this kind might also be made to serve a family who wished to spend a vacation near home. There are many streams and lakes near our cities where simply furnished comfortable craft might be stationed, and sometimes delightful opportunities for fishing, canoeing and swimming can be found at the doorway, as it were.

Heretofore houseboating has generally been regarded as a recreation possible only for people with a great deal of money to spend, yet one of these little outing homes can be built and maintained for a very moderate sum, as the first cost of materials is practically the only one for three years. On a boat of even the simpler kind a family of four

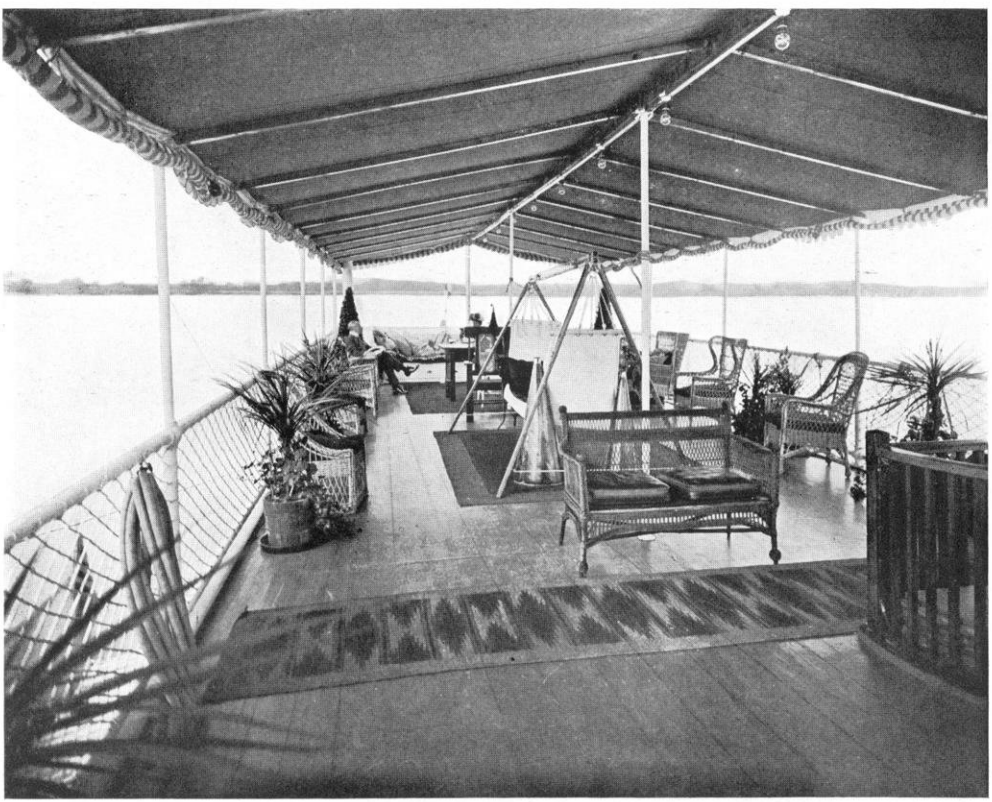


Photograph by Jessie Tarbox Beals.

A LUXURIOUSLY FITTED HOUSEBOAT WHICH IS USED FOR AN ALL-SUMMER VACATION AND ANCHORED IN ONE OF NEW YORK'S BROAD RIVERS NEAR THE OWNER'S PLACE OF BUSINESS: AN OPPORTUNITY FOR SLEEPING OUT OF DOORS IS AFFORDED BY THE PARTICULAR TYPE OF HAMMOCK THAT IS SHOWN AND THE DECK IS LARGE ENOUGH FOR DANCING IN THE EVENING: THIS BOAT IS ESPECIALLY WELL BUILT SO THAT WHEN ANCHOR IS WEIGHED IT IS POSSIBLE TO CRUISE ABOUT IN EVEN COMPARATIVELY ROUGH WATERS.

Photographs by Jessie Tarbox Beals.

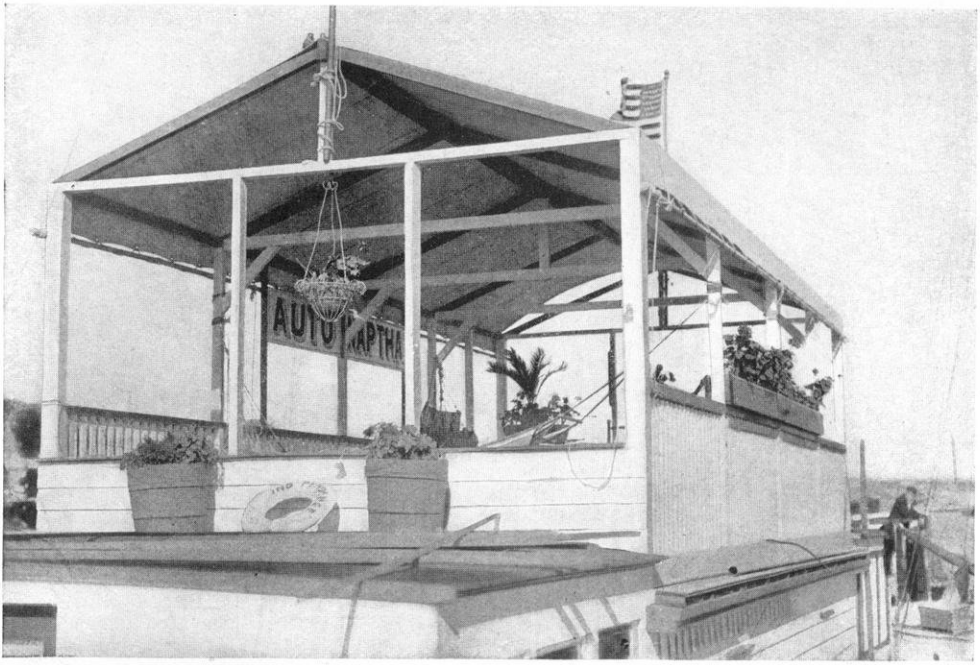
THESE LITTLE OUTING HOMES CAN BE BUILT AND MAINTAINED FOR A VERY MODERATE SUM: ABOVE WE ARE SHOWING AN INEXPENSIVE HOUSEBOAT WITH AWNING TOP, AND BELOW A LARGER TYPE OF HOUSEBOAT WITH A FINISHED ROOF: THE SMALLER BOAT WILL CRUISE IN SHELTERED WATERS AND THE LARGER ONE, WHICH IS COMFORTABLY FITTED UP FOR SLEEPING ON DECK, CAN WITHSTAND HEAVIER STORMS AND SWIFTER CURRENTS.



Photographs by Jessie Tarbox Beals.

A HOUSEBOAT FITTED UP WITH A RAILING AROUND THE UPPER DECK, WHICH AFFORDS AN ADMIRABLE PLAYGROUND FOR CHILDREN: THE ARRANGEMENT OF WINDOWS IN THIS HOUSEBOAT IS PICTURESQUE IN DESIGN, PLANNED FOR EXCELLENT VENTILATION.

THE MOST CHARMING OF THE HOUSEBOATS ARE FITTED UP WITH BRILLIANT AWNINGS AND BRIGHT COLORED RUGS SO THAT THE SUMMERTIME MAY BOAST AN AIR OF GAIETY IN MATERIAL AS WELL AS IN SPIRITUAL THINGS.



Photographs by Jessie Tarbox Beals.

TWO PICTURES SHOWING THE POSSIBILITY OF COZY LIVING IN THE HOUSEBOAT: IN ADDITION TO COOL DAYS AND RESTFUL NIGHTS THERE IS THE OPPORTUNITY FOR OUTDOOR SPORTS—CANOEING, FISHING, SWIMMING AND THESE IN INFINITE VARIETY AS THE HOUSEBOAT SLIPS ABOUT FROM RIVER TO RIVER, WITH FRESH SCENES DAILY FOR THE TIRED MAN OR THE WEARY WOMAN.

or five can live as comfortably as in a house on land, and still enjoy from time to time a change of surroundings like water gypsies on a floating van.

With the assistance of a carpenter a small boat, fifteen by thirty-five feet, for use on inland streams and lakes, can be built in about a week's time. This size includes a six-foot porch at either end, and there may be two windows and a door in each side wall. The entire cost of such a boat should not exceed one hundred and twenty-five dollars. This allows thirty-five dollars for labor, seventy-five dollars for lumber and roofing, and the remainder for extras.

THE floating equipment may be either a "scow," which is generally used in fresh water, or a number of second-hand cider barrels. They are not fastened to the bottom of the boat in any way, but are held up by their own buoyancy into little saddles made to fit them. About four of the barrels will need replacing each year, in the spring, and this work can be done from a rowboat with a boat-hook. The new barrels should be filled with water, floated into place and the water pumped out with an ordinary bilge pump. The number of barrels required depends upon the weight of the house and furnishings, and a barrel should be supplied for every two hundred pounds.

A compact arrangement of the interior of a floating house is to set apart two corners for the sleeping equipment, which may be in the form of full-sized beds or folding cots that may be used as sofas during the day. Another corner of the boat can be portioned off for the kitchen and should contain cupboards, shelves for dishes, an oil stove, a sink and a pump that will supply an adequate amount of fresh water. In the remaining corner may be placed the metal fireplace which on chilly days will radiate cheer and comfort from a driftwood fire.

The side walls would be effective if stained or covered with birch bark held in place by tacks. For partitions, curtains may be hung on wires near the ceiling; they can be pushed back when not in use, thus making it possible to throw the entire house into one large room. Several light-weight wicker armchairs, a stationary table or two and a hammock swung on the awning-covered deck will complete the furnishings.

If it is intended that the houseboat is to remain in one spot all summer, one way to ensure a fresh supply of vegetables every day is to plant a garden near the anchorage; it is usually possible to rent a bit of ground for this purpose. The garden should be near the water's edge, so that the crop will not be seriously endangered by drought.

Of course, houseboats are not confined to the simple type just described, for they may be as elaborate in equipment and as costly as

desired. A twin-screw power houseboat, in which it is possible to cruise along most navigable rivers, drop anchor in some snug harbor for a day or two, and continue the journey when fancy dictates, may be built for two thousand dollars or more. Adequate power for propelling the boat can be furnished by two gasoline engines.

Outwardly, the appearance of a houseboat of this kind is similar to that of the simpler craft, except for a broader deck and a little hooded cockpit. Inside it may be made as comfortable and homelike as sailing requirements will permit. The two cabins, one at either end of the boat, would be effective finished in plain dark-toned wood, as this would subdue the glare of light reflected from the water on sunny days. Uncovered rafters make interesting ceilings, and the walls may be fitted with built-in bookshelves, and lockers behind doors made in the form of panels. Both cabins can be used for sleeping rooms as well as for general living purposes, as they can each contain beds as well as clothes presses and lavatories which are cleverly concealed in the wall.

The kitchen is situated in the center of the boat and may be fitted out so as to satisfy the most exacting housewife. It should hold a gasoline stove, a refrigerator, a pump and sink, a wall table, cupboards for supplies, a closet for brooms and dusters and a rack for dishes. A big sliding door, which works up and down like a window sash, can shut this compartment off from the rest of the boat.

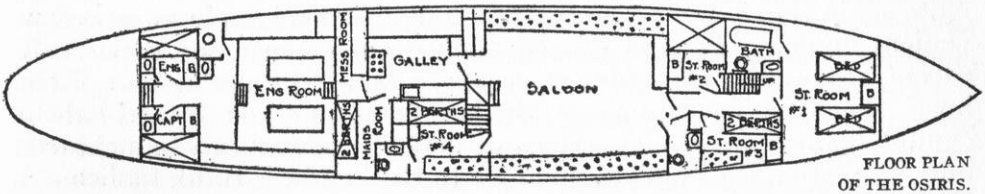
MANY people who are able to indulge their desire for pleasure and comfort in any way they choose have succumbed to the delights of houseboating, and there are colonies of this particular kind of pleasure craft to be found on our principal rivers and lakes, from the St. Lawrence River to the Florida coast,—on Alexandria Bay, the Housatonic River, Long Island Sound, Manhasset Bay, Lake Michigan and the smaller Wisconsin lakes. One of the most elaborate power houseboats ever built, the *Osiris*, cost forty-five thousand dollars. In this it is possible to cruise along the coast and also a short distance out to sea, as the windows and hatches are made watertight. It is one hundred and ten feet long, twenty feet wide and contains five staterooms, baths, a large saloon, servants' rooms, crew's living quarters, captain's room and galley.

The saloon is almost in the center of the boat, and opening off this at the bow are the staterooms with comfortable berths, hot and cold running water and convenient baths adjoining. The captain's room is at the stern of the boat, while the engine room, the galley and the crew's quarters are in the middle. Leading from the saloon are the stairs to the deck, and in this spacious, awning-covered spot the houseboaters may comfortably spend every moment of clear weather out of doors.

The cost of running a boat of this type amounts to several thousand dollars a season, as the wages of the seven men in the crew are about five hundred dollars a month.

The houseboat was introduced into America when the people of the Eastern coast settlements first felt impelled to go to the great West. The vast rivers which the daring pioneers encountered, the Mississippi and the Ohio, in a short time teemed with keel-boats, flat-boats and rafts, on which eventually small houses were built to shelter the adventurous families and their belongings.

The little houseboats which today line the shores of the Mississippi have been evolved from this early type of craft. These modern boats foster a gypsylike kind of life, for they drift down the stream with every freshet and when the water is high the occupants earn a



FLOOR PLAN OF THE OSIRIS.

livelihood by fishing and working on board other vessels. When the flood recedes the boats are stranded on the land, gardens are planted in the fertile soil and the floating homes become farmhouses until another freshet sweeps down to send them drifting again along with the current.

The cost of anchorage for a houseboat in American waters is about five dollars for the season, or as long as the craft is stationary. This remarkably low rental very materially reduces the living expenses of permanent dwellers in houseboats. An enterprising resident of New York City has proved the economy of this sort of life. He and his family make their home from October to May on a houseboat which has been specially constructed for cold weather. Light and heat are derived from oil lamps and stoves; five dollars a year covers the cost of water supply from a nearby hydrant. As this boat is anchored at a public pier in the Harlem River, the city makes a charge of five dollars a month for the privilege. The mooring is at the foot of a street, so that the postman is able to deliver mail every day, and it is possible for the tradesmen to come on board with family supplies. In summer the family leases the houseboat and goes for a vacation in the mountains.

There is no registry of American houseboats, but it is estimated that there are about one thousand on the inland streams and lakes.

CONCERNING HOES: BY C. L. MELLER

HE dictionary informs us that "A hoe is an instrument for cutting up weeds and loosening the earth in fields and gardens, commonly consisting of a thin flat blade of steel with a long wooden handle set at a convenient angle." As if a dictionary was expected to know anything about a hoe! A hoe to the dictionary is a word; to the manufacturer, a product; to the mechanic, a job; to the merchant, a salable article, while to the gardener, a hoe is a tool that encourages or disgusts him. The dictionary seeks to cover its ignorance concerning a real hoe with the word "convenient."

Now the efficiency of a hoe as a tool hinges upon the hang of it. The angle that the blade of steel makes with the handle must be adjusted to a nicety or the hoe will not hang well and a hoe that hangs poorly is fit only to hang upon the bough of a tree forever and ever. Note again the dictionary:—"with a long wooden handle set at a convenient angle." That is exactly the trouble, everybody concerned, except of course, the gardener, seems to be at the wrong end of the hoe. When the mechanic sets the handle at an angle to the blade he cannot make a good hoe. Hoes of good character can be achieved only by setting the blade at an angle to the handle. Rank foolishness that seems, for when the handle is at an angle to the steel, surely the steel is at the same angle to the handle. If that is the common sense of it, why then go over the sentence backwards? But "look," as they say across the telephone in Nova Scotia, this angle is indeed a very critical angle to be determined only by firmly grasping the far end of the handle and trying the hoe out in the garden. Also it is not the same for every kind of hoe. Some hoes merely exemplify "In the sweat of thy brow shalt thou earn thy bread." There is no making any headway with that kind of a hoe. It worries him who hopelessly tries to work with it into sweat and profanity. A hoe to be a good hoe must not make the sweat come, but induce a gentle soothing perspiration, nor make a man's muscles ache too early in the day.

When a man innocently buys a badly hung hoe, perhaps the knowing clerk has jerked it over the floor for him, he runs great risk of losing that joy in gardening so essential to suburban real estate. Blistered hands, aching muscles and a shirt touching the body with cold clammy moisture at every movement are not conducive to sustained interest in the little sprouting promises of vegetables and flowers. If such a man and his hoe should meet the maker of that hoe, there is no telling what might happen. A manufacturer who has not hit upon the critical angle or as the dictionary puts it, the "convenient" angle, had better not mention that fact in his application for life insurance. Convenient indeed? As if anything about a hoe was ever convenient to

anybody, anywhere at any time. It is not advisable for a manufacturer to mark his product too conspicuously with his name. A poorly hung hoe will gain its maker no friends. They know it, those manufacturers, most of them anyhow, for hoes are generally labeled with a colored piece of paper that comes off in the first rain. Its cussedness lingers long after the name of the maker has been forgotten. A man who has no garden of his own has no business making hoes.

Many try their skill at improving the hoe, but few succeed. Witness the assortment of hoes; all manner of shapes, every degree of angle but the critical one. They sell, and it is a pity they sell, luring on the gardener with hope that he may do his gardening with a little more reading and ever a little less work. Mother Nature, however, will not swap vegetables for garden books. The only concession she will make is that you may do your gardening with gloves on and then wear out your gloves in a hurry. A good hoe is a gem of a tool to be treasured. Diligently you must search, for there is no prophesying when or where you will meet with it.

The writer has found a good hoe, the acme of perfection, and now he bears the maker of that hoe a somewhat different grudge. What moral right has a man who makes a good hoe to let another man hunt for that hoe until finally he finds it by merest chance leaning against the window in front of a hardware store? What wonder that he approaches that hoe suspiciously, fearing lest he has again mistaken fool's gold for real gold, takes it home skeptically and tries it as never a hoe has been tried before. It has the hang! No need of exerting every ounce of strength to make it bite the dirt. Merely pull it along and the critical angle, that most convenient of all angles, digs it into the soil. How like a charm it works up the soil into small and mealy particles. There is no gaudy paper to give it a brief hour of fame but instead the name of the maker is cast in the iron. Evidently here is a man with faith in his product. Everywhere that hoe goes he will have a friend whose one regret will be that he did not hit upon the friendship sooner. It is a three-fingered hoe, but that is not its distinctive feature, for there are other three- and even five-fingered hoes, spider-like affairs about as efficient for hoeing as a spider would be, all due to the fact that the maker was at one end and the gardener in using it must needs be at the other. With this gem of a tool however, both the maker and the gardener are at the same end. There is mutual understanding. It is highly probable that the maker owns a garden.

Now with the good hoe found, what further grumble? A very growly grumble to the effect that when a man has achieved such a hoe, he has no moral right and can in nowise justify himself in permitting the entire fraternity of garden craft to sweat in ignorance of the

help so near at hand. Figuratively speaking such a man ought to soak his head in printer's ink, or if that be too strenuous a method, in some more gentle manner infuse a little printer's ink into his system (we refer of course, to his business system.) With the present desultory method of marketing this hoe, think of the many precious years that many a gardener must yet waste before he finds this gem of tools. Surely the blame of it must fall upon someone's head. Advertising would help. It would bring the hoe to the attention of those who need it most and just compensation into the hands of the manufacturer. However, a man who produces such a good hoe and then fails to advertise it, is nobody's friend, not even his own. He does not deserve to be a millionaire.

THE MORAL QUALITIES OF THE HOE

CHARLES DUDLEY WARNER was wont to dwell long and thoughtfully on the romance of the hoe even though he knew it in its primeval state of incompleteness. He said: "To own a bit of ground, to scratch it with a hoe, to plant seeds and watch their renewal of life,—is the commonest delight of the race, the most satisfactory thing a man can do. One gets strength out of the ground," he reflected, "as often as one touches it with a hoe."

Mr. Warner hoped that Horace did a little hoeing and that his verse was not all fraudulent sentiment. "Hoe while it is spring and enjoy the best anticipations. It is not much matter if things do not turn out well."

During the summer that Mr. Warner spent in his garden, the garden he turned into literature, he came to the conclusion that weeds had hateful moral qualities: "To cut down a weed is to do a moral action."

The pith of his argument however is that, "in a garden man needs a cast-iron back with a hinge in it. The hoe is an ingenious instrument, calculated to call out a great deal of strength at a great disadvantage."

This observation of Mr. Warner's recalls to many nature lovers the insects with scale-covered backs showing a conformation that answers somewhat to his desired hinge in the back. In fact, these smug creatures are able to approach a hole, sniff about it, and then, should they feel a slight tremble of the earth beneath them, to swiftly enter, apparently unhinging the scaly portions of their backs and taking whatever form enables them to slip out of sight most quickly. The future may reap suggestions from such insects that will perchance evolve the hoe of the gardener's dreams.

THE WELCOMING DOORWAYS OF DEERFIELD: BY CAROLYN WELLS

O him who in the love of Architecture holds communion with her visible forms, she speaks a various language; and I've little doubt that the language in which the Deerfield Doorways spoke to me is decidedly different from the classic lore in which they converse with earnest and erudite architecturalists. You see, I didn't know anything about them. I didn't even know Deerfield had doorways; nor did I know, except in a vague way, that there was a Deerfield at all. However, as it turned out, that is the very way to know it, for Deerfield itself is nothing but a vague way. It is even less than that; it is a shadow, a wraith.

An article on Deerfield would have to start like this (it seems like plagiarism, I know, but there are no other words to use; and if these have been used before, I can't help it): Deerfield is dead, to begin with. There is no doubt whatever about that. Old Deerfield is as dead as a door-nail. And it is an intentional deadness, a cut-and-dried deadness; a deadness that is polished and put on exhibition each morning with the same care as that bestowed upon an old applewoman's red apples.

But the curious and interesting deadness of Deerfield is not now the subject of our consideration. The carefully preserved "quaintness," the determined primitiveness and the glorious boast that there is not a bathroom in the town are all quite in the picture, and strike the correct and appreciative visitors with just the right admixture of mild amusement and reverential awe, but they are not our present theme. These same visitors, of course, note the Doorways, and discourse learnedly of Doric, Ionic and Pure Colonial, with side references to the charms and beauty of the Simple Life.

And Deerfield is full of that charm and beauty. Perhaps no New England village can surpass it in vistas of tree trunks and grassy hummocks, in broad expanses of unmown lawns, in forest-path streets and in the carefully kept unkemptness of its cemetery, whose crumbling monuments show masterpieces of the world's best tombstone literature. It is all perfect in its way, or would be, were it not for the everywhere visible spirit of self-consciousness, for which its modernity, not its antiquity, is responsible.

But we wander from the Doorways, and their light chat with us. Woodenly speaking, the Doorways of Deerfield are of intrinsic value. Their lines are beautiful, and have fallen in pleasant places; and the two centuries that have drifted past them have detracted nothing from their material aspect, nor have they added any (unnecessary) glamour of antiquity. Each one is a spot of loveliness

on an otherwise unornate, often ugly building. It is like a flashing jewel on a stubby, work-scarred hand.

Architecturally, they may have meanings which I wot not of; I am not versed in builders' babel.

But to me the Doorways seem alive,—the only live things in dear old dead Deerfield. For, mark you, this insistence on the deadness of Deerfield is by no means an aspersion or hint of derogation. If Deerfield were not dead, it wouldn't be at all. It is its inherent deadness that gives it its life (which is entirely true, in spite of the fact that it sounds like a cheap paradox).

BUT to return to the Doorways; not through them, merely to them. They told me first of their lonesomeness. In their early days they stood there, the only beautiful things in a primitive, prosaic New England settlement, a mere spatter of houses, scarce enough to be called a village, yet each house showing its delicious Doorway. There they stayed for years, like full many a gem, or full many a flower, and so seldom were they noticed or admired that they acquired a sort of stolid resignation to their fate and became mere monuments of patience.

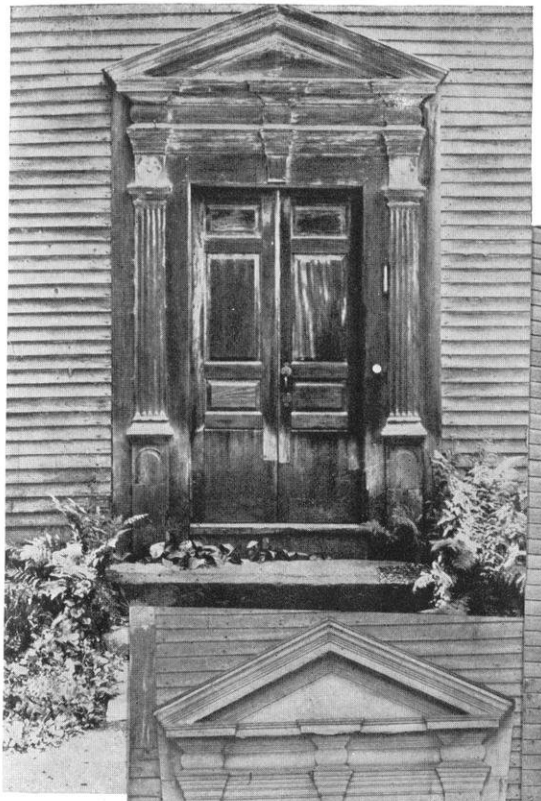
But later people began to wake up to their beauty and value, and a sort of appreciation set in. How happy the Doorways were then! What is better than to be lovely and have other people realize it? Then the inevitable followed. From the effects of the indiscriminate praise and flattery of enthusiastic tourists, the Doorways achieved a spirit of bumptious pride, and realized that they were the main push of Deerfield.

This didn't hurt them; it was part of their education, and doubtless the Egyptian Sphinx has been through the same experience. As was natural, they grew tired of this adulation in time, for a happy, healthy Doorway has a good sense of relative values. And so they settled down into a quiet, placid dignity; a self-knowledge, not self-consciousness. And now they stand serenely, slightly shrugging their shoulders, but smiling pleasantly, as strange motor-garbed visitors stare at them and say, "That's a good one, isn't it?"

Individually, the Doorways of Deerfield are so intimately pleasant that I call them to myself, the Dearways of Doorfield. This is a mild little joke, but they like it.

At first they tried to be rather stiff and formal with me, but I wouldn't have it. I jollied the straight-backed and elegant-mannered Doorways of the Stebbins house until they laughed outright. Even the front Doorway, with dressy cap on, responded to my mood.

But the Cowles Doorway was a trifle more reserved, a trifle less

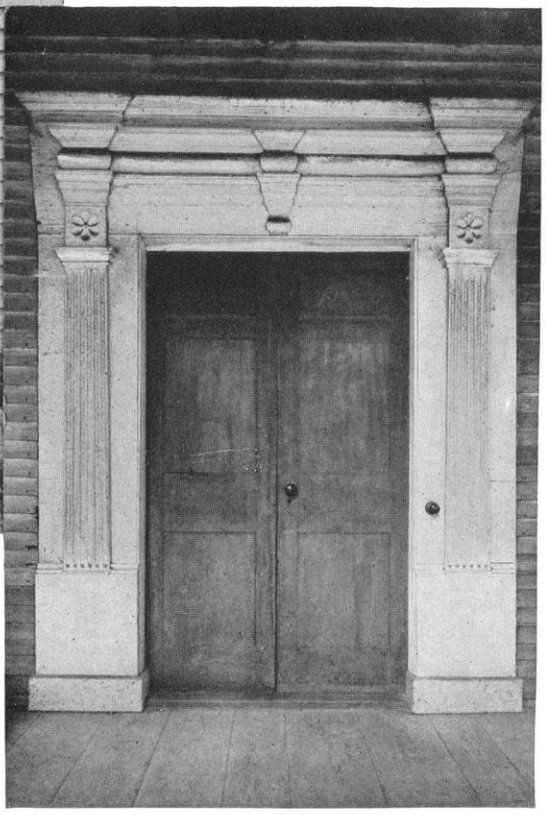


AT THE LEFT IS THE OLD DOORWAY OF THE SHELDON HOUSE IN DEERFIELD: MISS WELLS FOUND IT A LITTLE FORMAL, BUT THE PURITANS WERE THEMSELVES VERY FORMAL, AND PROBABLY THE DOORWAY WAS MAINLY USED FOR THOSE SAD OCCASIONS IN OLD NEW ENGLAND, WEDDINGS AND FUNERALS.

ON THE RIGHT IS THE SIDE DOOR OF JOHN WILLIAMS' HOUSE, CLASSIC AND PRIM, WITH A DELICATE BEAUTY VERY NEW ENGLAND IN QUALITY.

ABOVE IS THE FRONT DOOR THAT JOHN WILLIAMS BUILT FOR HIS HOUSE: IT IS A LITTLE MORE ORNATE THAN THE SIDE DOOR AND FOR THAT REASON NOT QUITE SO BEAUTIFUL: MISS WELLS SPEAKS OF THESE AS "THE VERY GENTRY OF DOORWAYS, SELF-RESPECTING AND ANTI-SUFFRAGE TO THE EDGE OF THEIR DOORSTEPS."

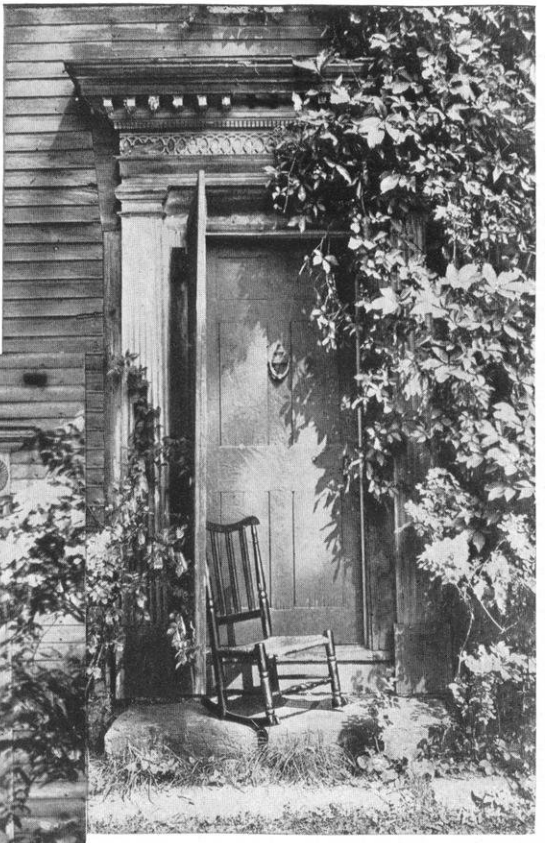
THE DOORWAY OF THE CHILDS HOUSE BELOW SEEMS TO MISS WELLS A LITTLE POMPOUS AND SOMEWHAT STERN, BUT TO US IT HAS RATHER AN AMPLE, COMMODIOUS AIR, AS THOUGH THERE WERE A LARGE FAMILY BACK OF THE SIMPLE MAHOGANY DOORS AND AS IF MANY CEREMONIES HAD PASSED IN AND OUT: WITHAL THERE IS A FINE SENSE OF PROPORTION AND THE ORNAMENTATION IS RETICENT, AS IT SHOULD BE ON A NEW ENGLAND DOORWAY.

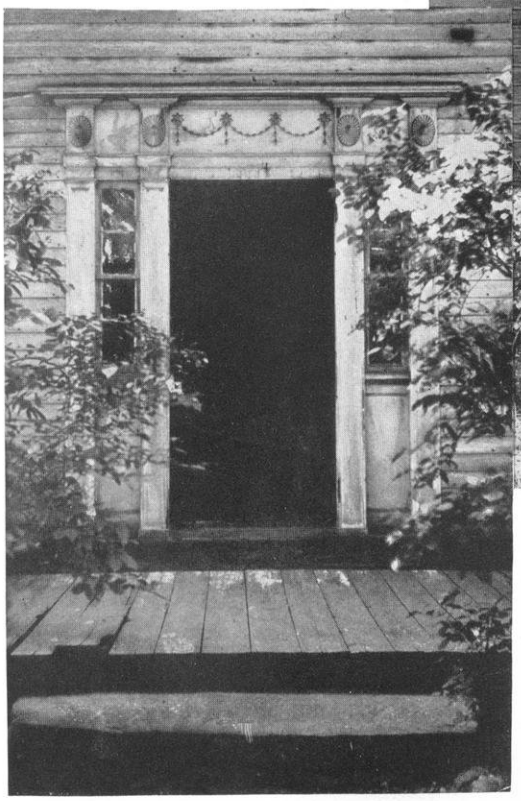


THE BISHOP WILLIAMS DOORWAY ABOVE IS "ALMOST IF NOT QUITE AN AUSTERE STRUCTURE, YET AS IF THE HOLY MAN HAD A SENSE OF BEAUTY, AND DOUBTLESS HE HAD": THOUGH IT IS A RELIGIOUS DOORWAY, IT IS TOO SIMPLE AND FRANK TO BE SANCTIMONIOUS, BUT WE ARE NOT QUITE SO SURE OF A WELCOME HERE AS WE ARE WITH THE JOHN WILLIAMS DOORWAY.

MISS WELLS SUGGESTS THAT WE SHOULD NOT GO TOO FAR THROUGH THE DOORWAYS OF DEERFIELD, "LEST WE NEVER RETURN TO HERE AND NOW."

THIS FRONT DOORWAY OF THE OLD ROOT HOUSE IN DEERFIELD SEEMS THE DEAREST OF ALL: THERE IS A BEAUTY OF COQUETRY ABOUT THE WAY THE RATHER FORMAL OUTLINE OF THE DOOR IS HIDDEN UNDER THE GENTLE NEW ENGLAND FLOWERING VINES: YOU PICTURE CHILDREN RUNNING GAILY IN AND OUT, EVEN IN NEW ENGLAND, AND LOVERS SEATED ON THE DOORSTEP IN THE JUNE TWILIGHT: ALTHOUGH THE ROOT DOORWAY IS SOMEWHAT IN DISREPAIR, IT STILL LOOKS GAY, AS THOUGH INVITING TO COZY FIRESIDES WITHIN AND AMPLE, CANOPIED BEDS.





MISS WELLS FOUND THE FRARY DOORWAY FRIENDLY FROM THE FIRST MEETING: "A CERTAIN AUSTERITY IT MUST HAVE HAD LONG AGO, BUT SOMEWHAT TEMPERED BY THE SWEET CONFUSION OF VINES": THIS DOORWAY IS ALSO A VERY WELL CONSTRUCTED ONE, AS THE SIDE GLIMPSE SHOWS US, AND THE OLD KNOCKER IS STILL THERE THAT BROUGHT BOTH GAY AND RELUCTANT FEET TO GREET THE STERN OR CHEERFUL NEIGHBOR.

"IT GIVES US PAUSE TO WONDER WHAT VARYING INFLUENCES AFFECTED THE PEOPLE WHO CONTINUALLY PASSED UNDER THESE DOORWAYS, GABLED, ARCHED, FRIENDLY, AUSTERE."

THE COWLES DOORWAY HAPPILY IS A SHADE SIMPLER THAN MANY, "A TRIFLE LESS SOCIABLE," WE ARE TOLD: A CERTAIN AIR OF CALM SUPERIORITY DOMINATES ITS BREADTH AND SPRINGING FANLIGHT OVERHEAD: IT SEEMS PLAINLY TO EXPECT THE PRAISE OF ALL LOVERS OF DEERFIELD AND HER DOORWAYS, "A LITTLE CONCEITED," MISS WELLS SAYS.

ABOVE IS THE WEATHERELL DOORWAY, A LITTLE SOMBER, AS THOUGH THE STERN OLD PURITAN SPIRIT HAD LASTED LONG WITHIN: WE DO NOT SEE CHILDREN OR LOVERS HERE.

IT HAS INTERESTED US TO PLACE THE SITTING ROOM OF THE COWLES HOME DIRECTLY BELOW THE ENTRANCE, AND WE ARE DELIGHTED TO FIND THAT IT LOOKS JUST AS IT SHOULD; PERFECT OF ITS TYPE, COMPLETE IN EVERY DETAIL, SECURE IN THE ADMIRATION OF ALL WHO LOVE THE DELICATE REFINEMENT OF BEAUTY BORN OF THE PURITAN SENSITIVENESS AND RESERVE.

sociable. Secure in its reputation of "most worth while of any" it stood, calmly superior, and spread its wonderful fanlight with the grace and pride of a peacock; stood in all the glory of perfect line and curve, blandly accepting its well-deserved adulation. Ah, yes, the Cowles Doorway was conceited, but being of such a perfect classic type, one could not blame it.

FAR more chummy was the Champney Doorway. Unkemptly picturesque, its exquisite workmanship veiled itself carelessly behind some straggling vines, and the whole effect was charming and inviting. I lingered long, looking at its graceful gable and tall, slender columns, and left it with a farewell whisper of belief that only patrician feet had so worn its old doorstep. Gaily the Champney Doorway smiled back and told me that I was right; and that it was still happily remembering the lives and loves of those dear people.

The Frary Doorways, both of them, were of the temperament known as "easy as an old shoe." They were friendly from the first moment, and chatted as if meeting again after long separation, all talking at once. A certain austerity they must have long ago possessed was tempered by the confusion of vines that fairly smothered them in embraces, and the whole sweet disorder in their dress gave sign of the lovely nature and sunny disposition that marked their every line and angle. In a way, the bonny Frary Doorways were my favorites, but not my greatest admiration. That was reserved, I think (though it was unstable) for the John Williams Doorways, especially the one with highboy top; but both seemed to embody the spirit of New England, and their fine disregard of condition accented their real worth. They had what people up there call "faculty;" they were energetic, capable and determined. They told me many secrets,—some real facts of historical authenticity, and some merely matters of opinion; but the opinions of the Williams Doorways were well worth having. They were the very gentry of Doorways; self-respecting and anti-suffrage to the edge of their doorsteps. Rugged, self-reliant, incidentally beautiful, but primarily Puritan.

Then the dearest Doorway of all was the Root Doorway. Frankly frivolous and joyous, coquettish of decoration, it fairly seemed to bubble with laughter as it talked. And such gay chatter! In a key seldom heard in New England; but always there, though in an inconspicuous degree. In a most delightful disrepair, the Root Doorway challenged all for gay and festive demeanor, and its beseeching charm held me long after I should have gone.

The Bishop Williams Doorway is almost, but not quite, austere; as if the holy man had a fine sense of beauty, and doubtless he had. It is a religious doorway, but not a sanctimonious one; it is true and fine, and commands admiration and respect rather than love.

The Hoyt and Sheldon are dear old Doorways. And the Childs and Weatherell more sternly fine and a little pompous.

It gives us pause to wonder what varying influences affected people who continually passed under these Doorways, gabled, arched or neither. I inquired concerning this and the Doorways told me,—but it is a secret and I may not divulge it.

And behind these Doorways,—what is there? That is not part of this story; but we may slip through one and catch a glimpse. Through the Cowles Doorway we find this wonderful interior. Wall-paper more than a century old; doors whose arches harmonize with the outer Doorway, and furniture which belongs.

But let us go no further through the dear Doorways of Deerfield, lest we never return to here and now.

CONTENT TO GIVE

MY little daughter rushed into my arms
To sob a childish trouble on my heart,
I softly soothed away her young alarms,
And with my kisses healed the stinging smart,
Then speedily the smiles began to dart
Between the tears, and soon the dimpled charms
Came stealing forth as buds break into flower,
Or rainbows tell the passing of a shower!

But I, a mother, motherless must be
Through all the aching years—Well do I know
The weary grown-up child who longs to flee
Into its mother's arms with every woe;
Yet I rejoice my little child can go
Into my open arms for sympathy—
So mother-mine for your beloved sake
I am henceforth content to give not take!

ANNE P. L. FIELD.

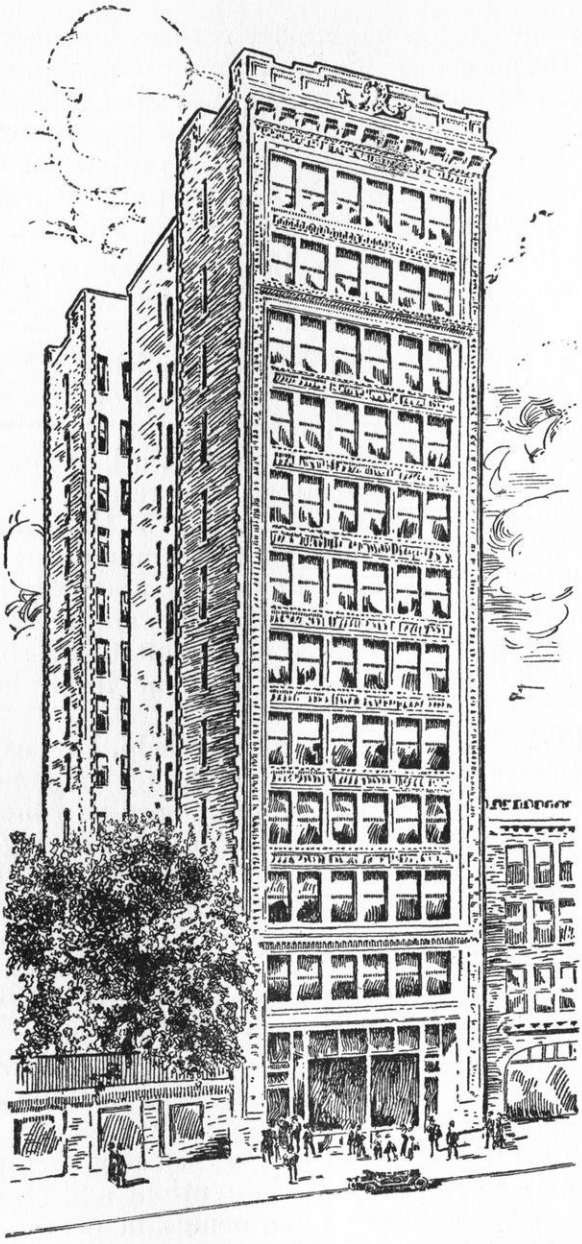
HOMES: BY GUSTAV STICKLEY

A WOMAN once asked me to build her a Craftsman house, and I naturally began to question her about the details—whether she wanted the building to be one or two stories high, what arrangement of rooms would be most convenient, what special features she desired, what sort of materials she wished to use—in short, just what were her ideals and ideas as to the sort of home best suited to herself and her family. Her answer was that "she didn't know anything about house-building; she wanted to leave that to me. She knew she could trust me and that whatever I did would be all right."

She seemed quite sincere about this and rather astonished when she found that I was neither pleased nor interested in the proposition. I tried to explain to her that as it was *her* home, not mine, the only way to make it a success was for us to coöperate in the work of planning it; that she could not hope to be satisfied with the result unless she gave each detail of the layout and construction all the time and attention, all the careful thought and judgment that she could muster. I could give her the benefit of my technical knowledge and experience; I could work out the design, prepare the drawings and advise her about the construction; but if she wanted the result to be not merely a house but a *home*, she must coöperate with me from the start.

To every man and woman who seeks an architect's help, I repeat this advice. For, needless to say, the planning and building of a home is an important undertaking. Most people build but once in a lifetime, and when they do, it often means the investment of the savings of many years. The strange thing is that knowing this, so many are willing to leave the matter in the hands of an outsider, transferring their responsibility to their architect and builder, and relying upon the taste and judgment of others to solve one of the most important problems of their lives—the making of the home environment. They do not seem to realize that it is not sufficient to tell the architect they want a six- or seven-room house costing about five thousand dollars, and then give him *carte blanche* as to the details. It is just those details that will make or mar the future home.

They forget, too, that this attitude is not fair to themselves or to the architect. The latter may have the best of intentions and may be an expert in his profession; but like all human beings, he needs to be inspired to do his best. Moreover, even if he does give the planning and building of the house his utmost skill and care, the result will be *his* ideal of a home—not the owner's. And since no two people have exact y the same ideals, the owner will naturally be more or less disappointed.



THE CRAFTSMAN BUILDING IN NEW YORK, THE CENTER FOR PERMANENT HOME-BUILDING EXHIBITIONS.

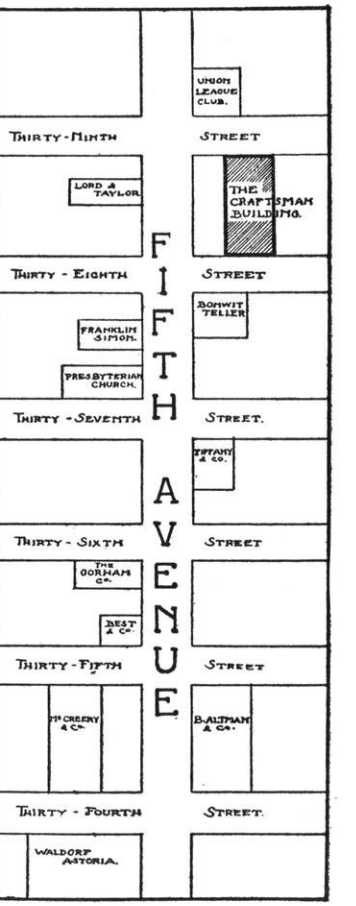
"But," you may object, as did the woman I quoted, "most people don't know about these things. Naturally they go to an architect, for that is his business." True, most people do not know much about the practical end of home-building, but is there any reason why they cannot find out? It means devoting some time and energy, interest and intelligence to what may seem at first a technical and complicated subject, but in the end proves to be both fascinating and profitable. Besides, how can they expect to find in the completed house all those little evidences of loving care and forethought, provision for the various family needs, if they do not put that thought and care into the conception and working out of the plans? How can they expect to find the true home spirit, if no ideals and energy of their own have gone into the undertaking? All permanent success in life is achieved in just this way —out of our struggles, out of our work and thought, out of our own experiments and experience. And we cannot expect success in home-building without the expenditure of personal effort and enthusiasm. The ideal home must be the united work of architect and owner.

AN EDUCATION IN HOME-BUILDING

SURELY when the prospective home-builder realizes how essential are his efforts to the success of his future home, he will make it his business to learn as much as possible about the practical end of the matter. He has probably known for several years he was going to build a house. Then why should he not spend part of his spare time during those years in the delightful task of studying architectural problems? And by this I do not mean taking a course in architecture and learning the distinguishing features of the various orders and periods. I mean studying and investigating the more practical working end of it, such as the relative durability and fitness of the many different kinds of building materials, trim and equipment —the respective merits of brick and concrete, slate and shingle, paint and stain; examining and comparing different kinds of interior woodwork and wall coverings, heating apparatus, lighting fixtures, sanitary plumbing and all the other important factors that must be considered in the making of a modern home.

Suppose, for instance, that cement appeals to a man as the most appropriate material for his home, let him find out just what is the most effective way to use it—whether it is best to apply it to brick, hollow tile or metal lath, what mixture will give the best results, how it should be applied in order to ensure a permanent weather-proof wall, and what kind of surface texture and coloring will be most pleasing. Let him study these things at first hand, examine the different mixtures and methods of construction, form his own opinion as to their practicability and beauty, so that when the time comes he will be able to take up the question intelligently with his architect and reinforce his own judgment by expert advice.

He will realize the need for all this forethought and investigation if he will look around him at the stucco houses that his neighbors have built. In many of them, he will find the stucco has lasted only a few years and is beginning to crack and fall off under the action of the weather, less-



THE LOCATION OF THE CRAFTSMAN BUILDING IN RELATION TO IMPORTANT METROPOLITAN ACTIVITIES.

ening the beauty, life and value of the building and necessitating the expense of repair. This might have been avoided if the owner and architect had gone into the matter more carefully in the first place, and had discovered, from the experience of others and their own observation, what form of construction would prove most lasting. But through ignorance or indifference, mistrust of his own judgment or too implicit confidence in that of others, the amateur home-maker merely said: "I want stucco walls," and left the details to the discretion of others.

Then, too, there is the question of expense, which for most people is a serious factor in the home-building problem. Economy as well as durability, comfort and beauty must be considered, and no architect or builder, however well-meaning, is as interested in keeping down the cost as those who have only a limited amount to invest. If the owners wish to get "the most for their money"—and who does not?—they must keep in close touch with the work, investigate prices and qualities of materials and fixtures, and see that everything is done as economically as possible. At the same time, they must see that strength and beauty are not sacrificed to cheapness, or thoroughness to haste. And the only way to make sure of this is to know as much as possible about every phase of the work before it is begun.

It *is* difficult, I admit, for the average man or woman who contemplates building a house to go about it in the best way. The necessary information is usually hard to obtain. To assemble and digest it means to delve in libraries, to read technical books and study innumerable catalogues, to examine samples of materials and investigate the various forms of construction, interior decoration and equipment that flood the market. And so diverse and bewildering do they seem to the layman that he feels it is almost impossible for him to cover so much ground—especially as he probably has very little spare time at his disposal. Evidently, then, what he needs is a central source of information where all these things will be brought together for his benefit, where he can examine them at his convenience and get unbiased, expert advice on every point.

IT is just this need that I propose to fill by the establishment of The Craftsman Permanent Home-Builders' Exposition which will open this fall in the new Craftsman Building. Here the visitor will be able to see actual materials and examine actual forms of construction. The strongest asset of each exhibit will be the practical way in which it is presented. There will be photographs, of course, drawings and catalogues of various forms of exterior and interior construction, but we shall not merely theorize on paper—the chief value

of the exposition will lie in its *working demonstrations*. Building materials, old and new, will be on hand for us to test and experiment with, and as in all our work during the past, the advice that we give to home-builders will be the result of our own practical experience.

In our reception room and library the visitor will find at his disposal works of reference on the various subjects connected with home-making. He may examine at his leisure, among comfortable, home-like surroundings, pictures and plans of Craftsman houses that will be helpful to him in deciding upon the general design and details of the home he wishes to build. He will find plans of bungalows, cottages and houses, large and small, for town, suburbs and country, woodland and shore—buildings of field stone, brick, concrete, clapboards and shingles, with plans and exterior to meet the varying needs of individual and site, ranging from simple, inexpensive rustic cabins and summer homes to the larger and more costly permanent dwellings.

Before deciding, however, upon the exact design and arrangement of his future home, the visitor will of course wish to learn as much as possible about the various forms of construction, the different building materials and the way in which they may be used; to examine models of houses, to see examples of interior decoration and furnishing. In the study of all these things the Exposition and its staff will be at his service.

Equipped with a directory of the building and Exposition, showing the exact location of each exhibit, the visitor will be able to pass from room to room and floor to floor, examining each feature in turn and gathering whatever information he may need as to its use, its cost, practicability, etc. And there will always be an expert within call to give him suggestions and advice as to the suitability of each material or article for his own particular purpose.

For instance, first will be found the materials for exterior construction—stone and brick, concrete, boards and shingles, both the rough materials and examples of them in actual use, showing just how they will appear in the finished house. If the prospective home-maker wishes to build with brick, he will stop to examine the various samples —ordinary red brick and rough-textured, decorative face brick, which will be found laid up in different bonds, with varying styles of mortar joints, and in numerous color schemes. From these he will be able to judge not only as to the most durable method of construction, but also as to the final effect of the completed wall.

Roofing materials of all kinds will be shown, materials for porch and pergola construction; floorings of tile, wood and other substances for porch, terrace and interior; doors and windows of various styles and their hardware attachments. Examples of fireplace construction

will be found—chimneypieces of brick, cement, tile and wood, showing numerous designs and combinations of materials that will help the visitor determine the most satisfactory form for his own chimneypiece and hearth.

THEN will come examples of interior woodwork, showing different forms of structural treatment, and here the visitor will learn what kinds of wood are most appropriate in texture and grain for the various parts of the interior, what is the most suitable stain and finish for them and what colors will be most in keeping with the nature of the wood and general character of the rooms. Next will come examples of interior decoration—wall coverings of paper, fabric, leather and other compositions, plain and with stencil designs, shown both by samples and by actual application, so that the visitor may judge of their effect within the finished room. Suggestions for color schemes and designs will be available, and an expert will be at hand to assist the home-maker with information and practical advice.

Passing on to the furnishing exhibits, the visitor will discover not merely a display of the separate pieces but entire suites of rooms fitted up in every detail, from floor to ceiling, like the interior of a real home. Here will be seen complete sets of furniture in both solid wood and willow; lighting fixtures for table, walls and ceiling; desk and table accessories, rugs and sofa pillows, portières and casement curtains, table scarfs and centers—in short, all those little fittings that complete a room and contribute to its homelike atmosphere. Every nook and corner will carry suggestions and inspiration for the woman who is looking forward to furnishing her own home. And if she wishes advice in the selection and future arrangement of the furnishings, she will find an experienced assistant ready to help her choose what will best fit her home, taste and income.

In the same way the visitor will find displayed the various forms of household equipment—plumbing, heating, lighting and cooking outfits, refrigerators, vacuum cleaners, and modern appliances of every sort that will help to simplify the labor of mistress and maid and make housework both pleasant and efficient.

If the visitor wishes to take up the question of the garden and its layout, the arrangement and design of outdoor features—pergolas, summer-houses, arbors, rustic seats and bridges, etc.—he will find in another part of the building exhibits, photographs, catalogues and other data along these lines, and will be able to consult an expert on any point on which he may need advice. In fact, we shall try to make the Exposition so complete that it will present every phase of outdoor as well as indoor home equipment.

AN EDUCATION IN HOME-BUILDING

WHEN the visitor has examined every feature of the Exposition in which he is interested, has gathered together the information desired, and has a fairly clear idea of the sort of arrangement, construction and equipment that will make the new home a success, he will be able to call in one of our architects and talk over the whole matter, going into every detail of the planning and construction as thoroughly as possible.

There will be many things to be considered—the nature of the site, its grade and general character; the materials available in that locality; the height and size of the building; the number, size, arrangement and exposure of the various rooms; the grouping of the doors and windows; the planning of the porches and sleeping balconies; the location of the fireplace and built-in fittings; the kind of wood best suited for the interior trim; the style of its finish, the color scheme for both exterior and interior, and so on throughout the entire plan. On every point our aim will be to carry out the owner's ideas as closely as possible, guided by our own technical knowledge and experience, so that the result, while expressing his individual taste and wishes and ideals, will be as practical and economical as our combined efforts can make it. And we shall keep in close touch with him during every stage of the planning and construction, from the making of the first rough sketches to the furnishing of the completed home.

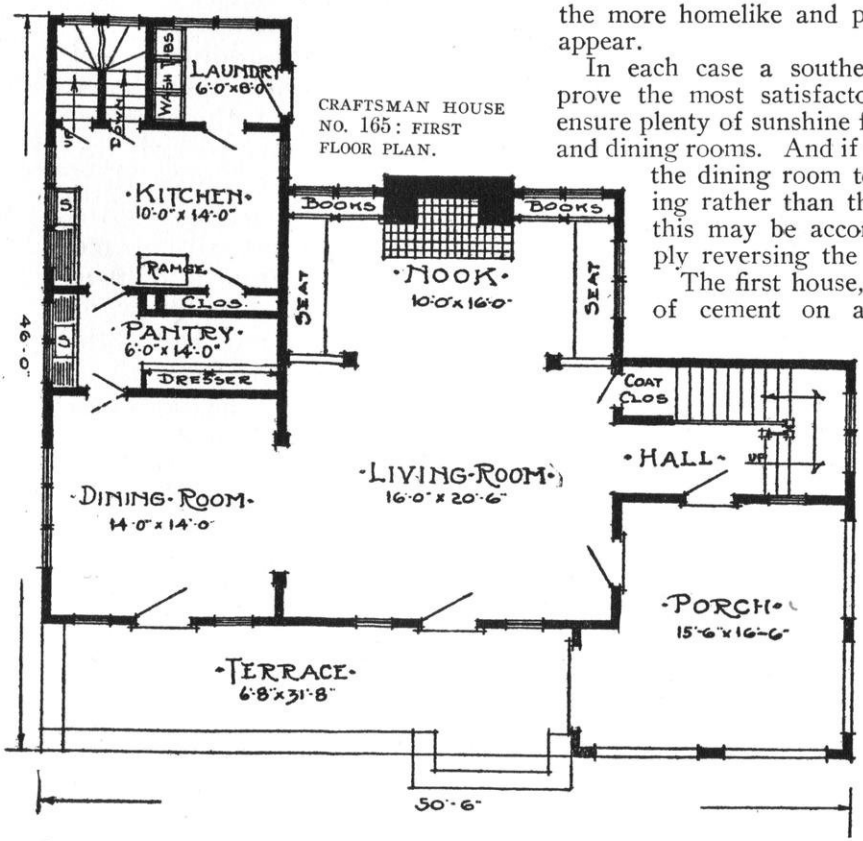
I want all the friends who come to visit the new building to feel that I shall be personally at their service, ready to help them solve whatever problems confront them in the building of their home. More than once people have come from a long distance to visit my workshops, and upon their arrival have failed to make known their presence to me. They have gone through the draughting rooms without my even knowing they were in the building, and I have discovered afterward that they felt they should not take my time and have imagined that I was too busy to talk over their plans. I do not want this ever to happen in the new building, for all my friends the world over will be welcome there, and it will be my pleasure to greet them personally. I want them to feel that the latch-string of the Craftsman Building will always be out, and whatever is of interest to our visitors will be of interest to those who welcome them.

TWO COMMODIOUS CRAFTSMAN HOUSES PLANNED FOR COMFORTABLE INDOOR AND OUTDOOR LIVING

THE two Craftsman houses we are presenting this month have been designed especially for suburban living. The layout of each has been planned to meet the needs of a family of four or five people and a maid, and while we have tried to provide for the utmost comfort and convenience we have managed at the same time to keep the construction comparatively simple, so that the cost of building will not be too high for people of moderate incomes. In each house, of course, we have embodied those practical features which, to our thinking, are so essential to well-rounded, wholesome family life, namely, a big living room, open fireplace and plenty of porches.

We have pictured each house in what seems to us the most favorable location—in a wooded suburban spot, set a few feet above the road level. If the lot selected happens to be somewhat irregular, so much the better, for the foundation and cellar can be adapted to the uneven grade, and the more closely the building conforms to the natural contour of the land, the more homelike and picturesque it will appear.

In each case a southern exposure will prove the most satisfactory, for this will ensure plenty of sunshine for porches, living and dining rooms. And if the owner prefers the dining room to have the morning rather than the afternoon sun, this may be accomplished by simply reversing the plans.

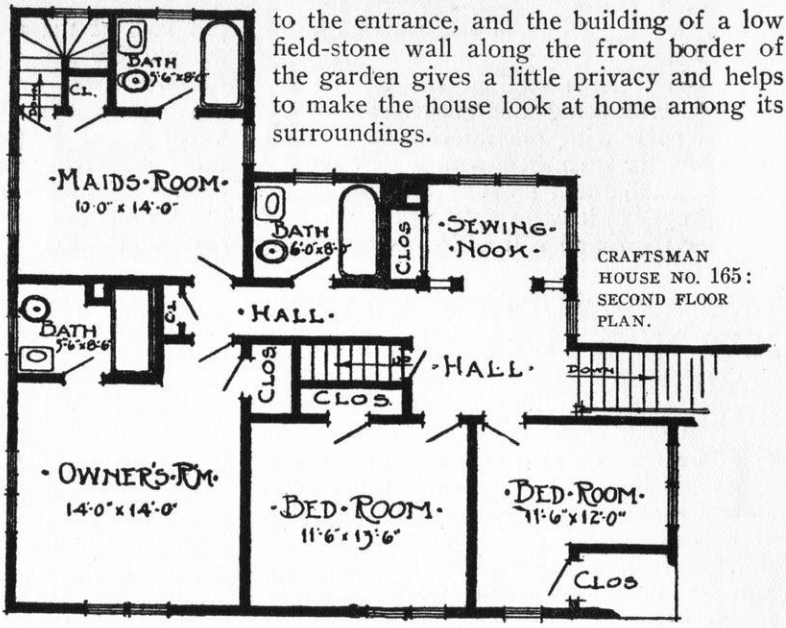


CRAFTSMAN HOUSE NO. 165: FIRST FLOOR PLAN.

The first house, No. 165, is built of cement on a low field-stone foundation, for the design lends itself most naturally to this construction. Brick may be used instead, however, if the owner wishes, or if the house is built in thickly wooded country where frame construction seems more in keeping, the walls may be shingled.

Casement win-

dows are used throughout, fitted with small panes to break up the plain surface of the walls, and the doors leading from the dining room, living room and hall onto the terrace and porch are of glass to give a full-length vista of the garden and landscape from the interior. If the house is set on a hill or in some other unsheltered spot where it is exposed to cold winds, one or more of these doors may be solid; in which case it will be advisable to use full-length windows on each side to ensure sufficient light for the rooms.



CRAFTSMAN HOUSE NO. 165: SECOND FLOOR PLAN.

We have used shingles in the gables above a wide beam that helps to keep the building as low as possible in appearance in spite of the roomy accommodation on the second floor. Shingles are also used throughout the roof and dormer, and it is partly by covering the front and sides of the dormer with shingles instead of building it of cement that the low roof effect is accentuated.

As a little study of the perspective view will show, most of the interest of the exterior is due to the way in which the roof is constructed. The irregularity of the roof lines, with their varied slopes and angles and low, brooding air, make the place interesting from whatever point it is seen. At the same time there is no striving after originality of effect—it is all simply the outcome of a convenient layout and practical construction.

The entrance to this house is particularly worth noting, as a glance at the plan and sketch will reveal. From the cement walk one steps onto the long terrace that forms the connecting link between home and garden. Around the cement floor is a low parapet of field stone that is just the place for flower-boxes, while the posts at each end are also capped by pots of growing things. The touch of brick in the risers of the steps and at the top of the field-stone posts gives a note of warmth and variety to the entrance, and the building of a low field-stone wall along the front border of the garden gives a little privacy and helps to make the house look at home among its surroundings.

In fact, there are few materials more valuable in bringing an atmosphere of picturesqueness into a garden than the rough field stone that is so often found upon the ground or is blasted in excavating for the foundation. It is particularly effective when used for parapets, posts, walls and borders for the paths and garden steps, when bushes are planted nearby, when vines are coaxed to climb up the sides and hang their fringe of leaves and tendrils over the rugged edges of the stone, or when ferns and other plants are persuaded to take root in earth among the crevices. In these and other ways field stone may be useful in taking off the newness of a place and making both house and grounds look as though they "belong" in the landscape.

While one can step from the terrace of House No. 165 through the glass doors into both living room and dining room, the entrance proper is on the right, reached through the corner porch. This porch is sheltered by an extension of the main roof and forms an especially inviting place for outdoor living, for it is well protected overhead and by the angle of the house, and at the same time is sufficiently open toward the front to be swept by every passing breeze.

The floor, like that of the terrace, is of cement, and the cement parapet and pillars give privacy from the street. This construction will permit the porch to be glassed in during the winter for a sunroom, if the

owner wishes, while in the summer mosquito screens can be used in the openings.

Flower-boxes placed at the top of the parapet will bring the garden into even closer touch with the interior, and when the porch is furnished with a few willow chairs, a table and possibly a hammock or swinging seat, it will prove a very pleasant outdoor room and will add considerably to the available living area of the house.

At the back of this porch is the main entrance door, which opens into a small hall on the right of which is the staircase. A few steps go up to a landing lighted by double casements, and thence to the second story, a coat closet being provided in the space below. This arrangement of hall and stairs will be found particularly convenient, for it shields the living room and nook from draughts, saves traffic through the downstairs rooms and allows one to enter and pass upstairs without disturbing people in the living room. At the same time the staircase, as usual in a Craftsman interior, is visible from the living room—an interesting part of the interior woodwork.

The living room itself is quite large—16 by 20½ feet—and seems very much larger on account of the wide openings into the inglenook and dining room. Post-and-panel construction screen the nook from the main room, and on each side of the open fireplace are built-in bookshelves and seats. Above the shelves and above the right-hand seat are casement windows set high in the wall, and their small panes will add considerably to the interest of the wall spaces. In fact, the whole construction, which can be seen from both living and dining rooms, will prove full of practical comfort and homelike charm, radiating an air of hospitality throughout the lower floor.

It would be a good plan to make the seats with hinged lids and to use the left-hand one for wood for the fire, providing a door in the kitchen wall so that the logs and kindling can be put through from that side.

The dining room is a comfortable size and will be very light, especially if the door onto the terrace is of glass. A long narrow pantry with dresser and sink separates this room from the kitchen, and the latter has windows on two sides that ensure plenty of light at the sink and range. There is a long shallow closet in the front partition and plenty of room for another built-in dresser on the right if it is needed.

A small laundry with three wash trays is provided at the rear, communicating with the garden, and on the left are the cellar stairs. Above these, back stairs ascend to the maid's room, which is directly above the kitchen and is provided with a private bathroom. This arrangement will be found particularly satisfactory, for it separates the service portion of the house from the rest and affords comfortable, homelike quarters for the maid. In the angle between the stairs and maid's bathroom a small closet is built.

The rest of the second floor plan comprises the owner's room and private bath on the left, and two other bedrooms, bathroom and sewing nook on the right, with plenty of closets. The sewing nook is screened from the hall merely by post-and-panel construction, and this arrangement, together with the window beside the stairs, ensures plenty of light for the hall.

The attic stairs are in the center, for in a house of this size the room above the second floor will probably be needed for storage. If no attic seems necessary, however, a closet may be built where the stairs are now indicated, and louvres may be placed in the gables instead of windows to ventilate the space beneath the roof.

Like all Craftsman houses, this plan is capable of various modifications to suit individual needs. For instance, if the middle bedroom is to be used as a nursery, a doorway may be cut between it and the owner's bedroom; or if the owner does not wish to incur the expense of three bathrooms, one of them may be omitted and the extra space used for a closet or thrown into an adjoining room.

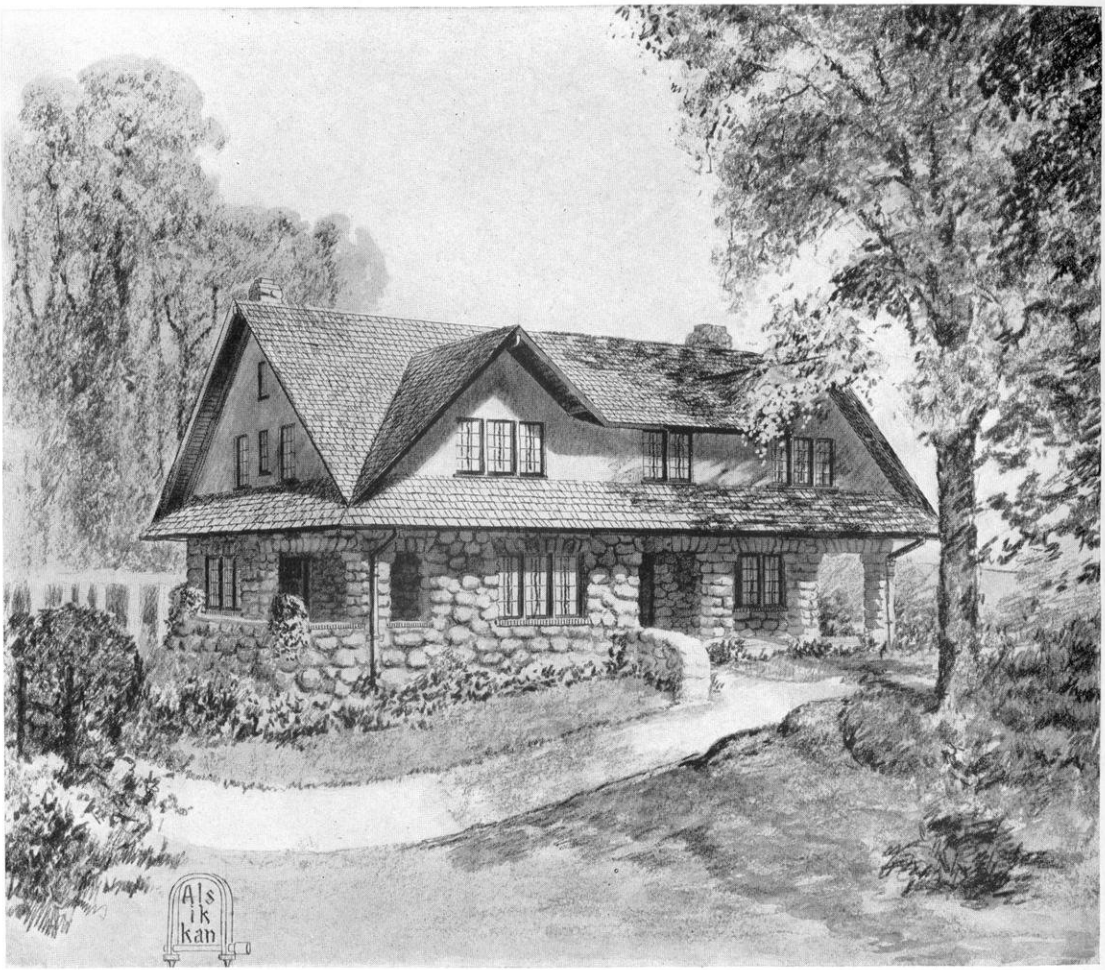
THE second house, No. 166, while occupying practically the same area as the first and intended also for a suburban or country site, is quite different both as to layout and construction. We have shown the lower walls as well as the parapet and posts of the porches of field stone, but if there happens to be no stone available cement or brick may be used instead.

Above we have shown cement, and this, combined with the horizontal lines of the roof that projects above the dining-room windows, loggia and porch, gives the building its low, sheltered air.

For this projecting roof, as well as the main roof of the house, we have used shingles, as their rustic character is always in harmony with the rugged texture of the

Gustav Stickley, Architect.

EIGHT-ROOM CRAFTSMAN HOUSE, NO. 165: FOR COMMODIOUS SUBURBAN LIVING: TWO AND A HALF STORIES OF CONCRETE AND SHINGLE.

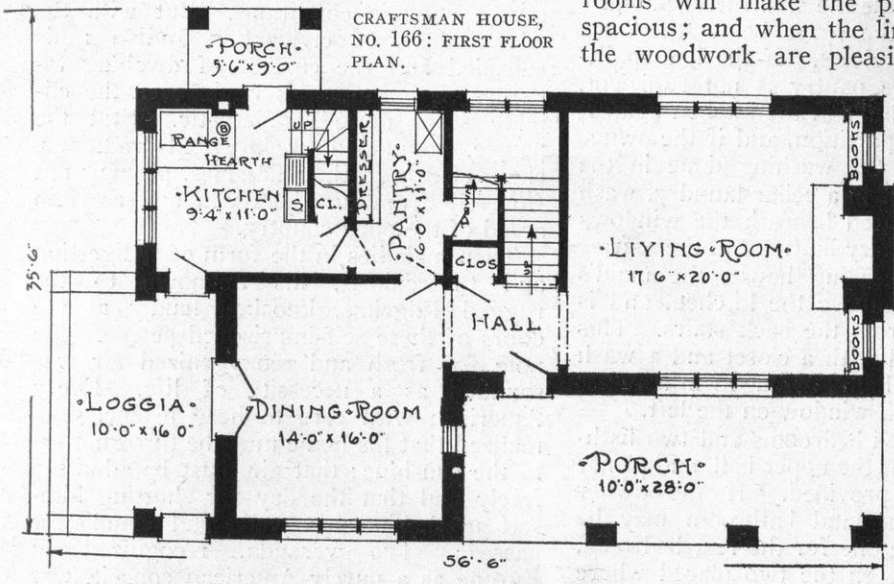


Gustav Stickley, Architect.

CEMENT AND STONE CRAFTSMAN HOUSE, NO. 166: EIGHT ROOMS, TWO PORCHES AND LOGGIA.

stonework, and all around the building the main roof has a wide overhang to shelter the bedroom windows and carry out the effect of the projection below.

Small-paned casements are used throughout, as they seem most suitable for a suburban home of this type; but if the house is built in the open country where it is exposed to cold winds, it may be advisable to use double-hung windows on one or more sides. Moreover, if there is a particularly interesting view from any of the rooms, the owner may prefer to rearrange some of the window groups, using a large plain pane in the center with small-paned casements on each side.



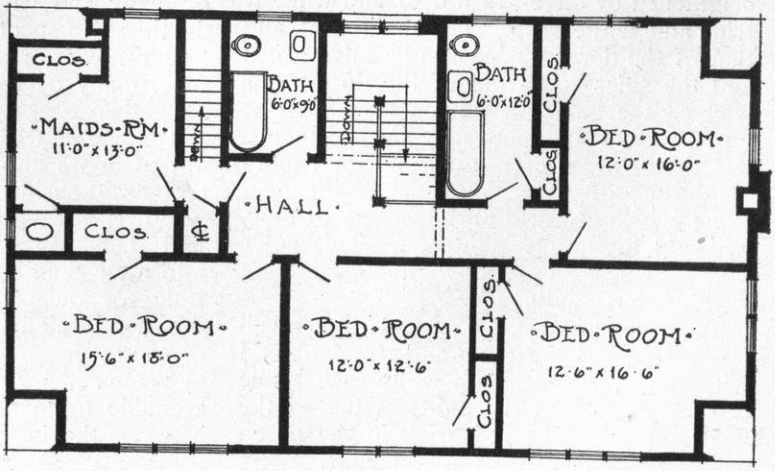
CRAFTSMAN HOUSE, NO. 166: FIRST FLOOR PLAN.

We have shown the house built upon rising ground, but it may of course be adapted to a different grade or to a level site, and the entrance porch is linked to the garden pathway by a sloping wall—a particularly effective plan when the ground has such a decided slope.

From this porch, which is so well sheltered by the second story and the additional roof, one enters the small square hall that separates the living and dining rooms. A coat closet is conveniently near, and beside the door the stairs ascend to a broad half-way landing lighted by windows in the rear. The cellar stairs descend below, reached from the pantry.

The only divisions between the hall and the rooms on either hand are the ceiling beams, indicated by dot-and-dash lines on the plan. While portières may be hung here, of course, we would suggest that the space be left open, for the vista through the rooms will make the place seem more spacious; and when the lines and finish of the woodwork are pleasing, there is no danger of the openings seeming bare.

The living room is large and well lighted by groups of casements in the front and back walls, as well as by the smaller windows set high in the wall above the bookshelves that are built in on each side of the chimneypiece. This right-hand wall of the room may be made full of structural interest; the open hearth and handy bookshelves will form the natural center around which most of the other furnishings—settle, rockers, armchairs—will be grouped.



CRAFTSMAN HOUSE, NO. 166: SECOND FLOOR PLAN.

The dining room on the left has double glass doors leading onto the loggia, which is sheltered overhead partly by the second story and partly by the projecting roof. This loggia will be just the place for meals to be served in the open air, for it is accessible also from the kitchen.

A butler's pantry separates the kitchen and dining room and shuts off cooking odors from the front of the house. The kitchen itself, while not large, is light and convenient, and opens onto a small porch at the rear. Beside the sink the back stairs ascend, and in the space below them we have indicated a closet. If the long built-in dresser in the pantry is not sufficient, another may be built in the kitchen against the dining-room partition, and if the owner prefers to have the washing done in the kitchen instead of in a cellar laundry, wash trays may be placed beneath the windows or a separate laundry built out at the rear.

As in the preceding house, the maid's room is directly above the kitchen, and is easily reached from the back stairs. This room is provided with a closet and a wash basin, the latter being arranged in a recess lighted by a small window on the left.

Four good-sized bedrooms and two bathrooms open out of the upper hall, and plenty of closets are provided. If the owner wishes, the right-hand bathroom may be used as a private one for the rear bedroom, and a door between the two placed where the small closet is now indicated.

Naturally, in both of the houses which we have shown, much of the exterior interest will depend upon the color scheme. In the first house, No. 165, the cement walls may be left in their natural color, brightened by olive-green door and window trim and white sash. The main roof and that of the dormer may also be olive green and the sides and front of the dormer, as well as the gables a golden brown. The flower boxes and pots may be green, unless the owner prefers a warmer and more vivid note of terra cotta, while the field stone, which always affords variety of tone, will add to the color interest. This color scheme will be especially effective among wooded surroundings.

The second house, No. 166, will look well if the roof is terra cotta and the door and window trim green, with white sash. The cement will repeat the lighter tones of the field stone and the red brick in the porch will echo the terra cotta of the roof.

OPEN-AIR ROOMS AND SLEEPING PORCHES: THE REVOLT AGAINST THE SHUT-IN HOUSES OF OUR FOREFATHERS

As with most significant movements, the cry for out-of-door living came as a reaction against the shut-in lives led by the forefathers of this country. These good people built their houses, designing them primarily as defenses against enemies and shelters from severe climatic conditions. But with the advancement of civilization Indian raids subsided and the custom of dwelling together in communities made even the climate seem more sympathetic. Still the people, dominated by inherited traditions, clung closely to their firesides, peeping out furtively from curtained windows as if in dread of the open country.

Then maladies in the form of indigestion and tuberculosis, ills unknown to the rugged Pilgrims, knocked loudly at the doors of these self-imprisoned people. The note for fresh and reoxygenized air was sounded as a necessity of life. Every American with ears to hear listened and realized that his home must be thrown open to the sunshine; that air must be admitted freely and that the day for shutting himself up behind his walls had completely passed. The veranda, recognized in Europe as a purely American conceit, was the first response to this sentiment. Spare moments began to be spent out of doors in some chosen sport, while later it was acknowledged that even the time of sleep might be given over to storing the system with ozone. As a result, sleeping porches of many and varied designs amplified the daytime life spent on verandas. Windows, besides, were made larger than ever before, many of them so as to be removed altogether.

Today the wish to get as much of the out of doors into the home as possible has become intensified, individuals doing so by whatever means is closest at hand. Some find that they can convert a back porch into a sleeping room, others that it is possible for them to build a recessed porch suited especially to their taste. Again, there are those who let in the out of doors by removable windows, in which case they are able to live in rooms acting as links between the home shelter and the healthfulness of open country freedom.

THE HOUSE OF HENRY H. TIMKIN ON THE PACIFIC COAST, DESIGNED BY IRVING GILL, ARCHITECT.

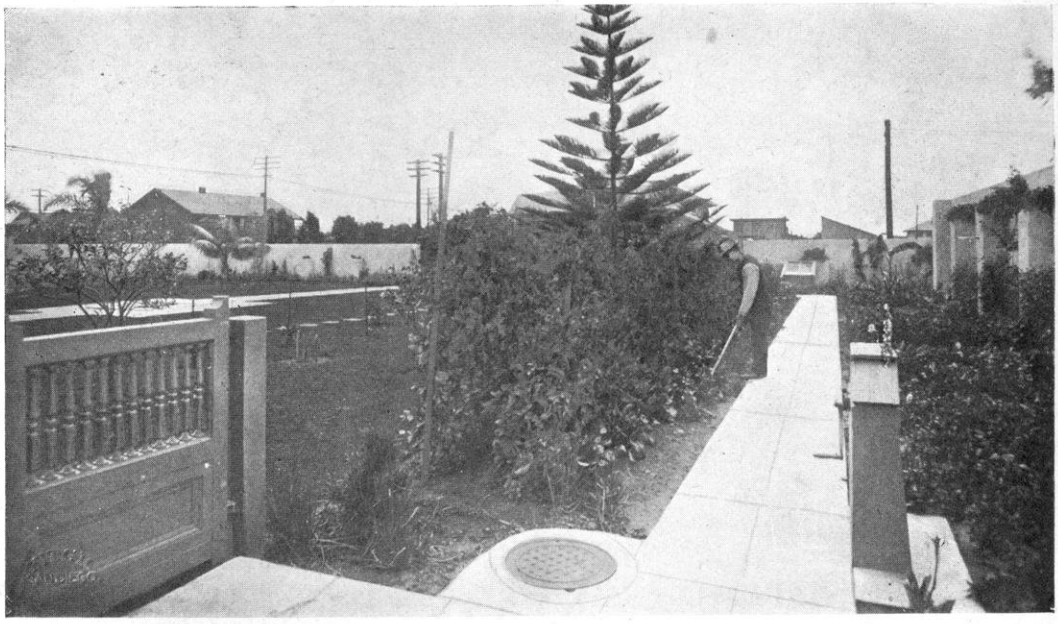
"OUTDOOR" LIFE IN CALIFORNIA HOUSES, AS EXPRESSED IN THE NEW ARCHITECTURE OF IRVING J. GILL: BY ELOISE ROORBACH

IN the West the court is the center of the home life. It is usually considered the first essential of a home plan, and when people who live in California begin to put on paper their cherished dream of a home, nine times out of ten they first draw a square, saying: "This is to be the court." Then around the square they add as many rooms as their fancy suggests or purse permits. But they must have opportunity for outdoor life, a sequestered place in the open air where they can serve their meals, receive their guests, sleep within sight of the stars or take a midday siesta.

In the friendly climate of the Pacific Coast the blossoms, vines and fountains that are considered essential parts of the court form a fairyland setting for children. Delightful opportunity is afforded for an open-air kindergarten and schoolroom, a sewing room and a study. Around the sides often runs a pillared walk, suggesting the cloistered paths of monasteries and reminiscent of earlier times in the history of California.

It would be difficult to imagine a more interesting example of a house built around a court than one recently completed in San Diego for Henry H. Timkin. This house

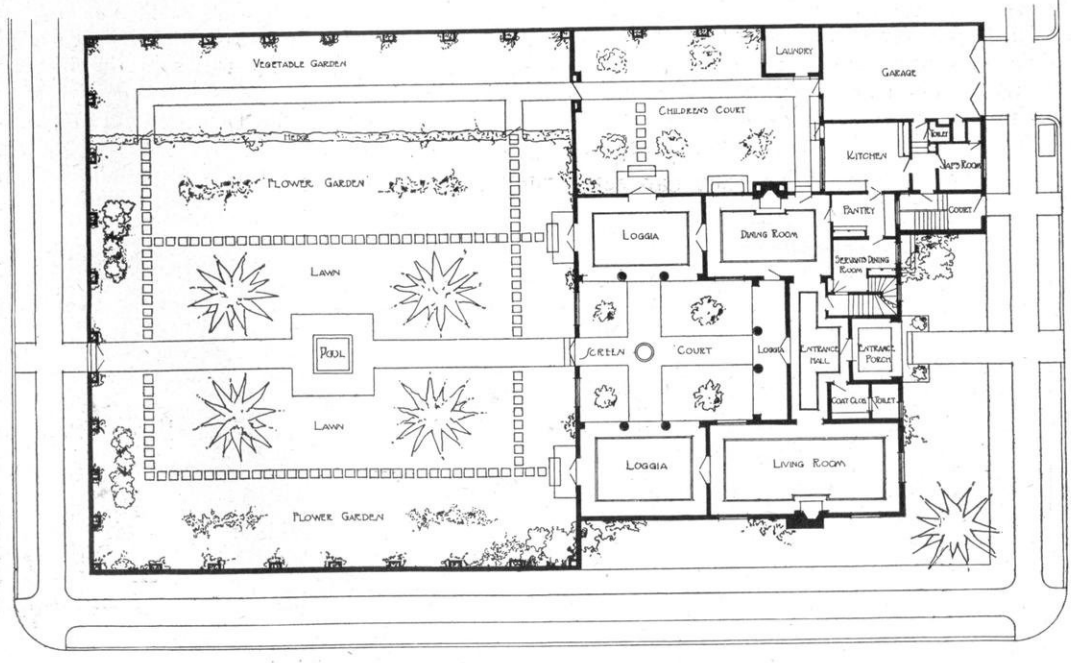
ENTRANCE TO MR. TIMKIN'S HOUSE, SHOWING THE VERY INTERESTING CONSTRUCTION OF THE WALLS AND A CERTAIN PICTURESQUE QUALITY GAINED FROM ENTIRE SIMPLICITY OF DESIGN AND FINISH.



THE KITCHEN GARDEN ON THE WEST SIDE OF THE FLOWER GARDEN OF MR. TIMKIN'S HOUSE.

sets a new standard for home-building. It embodies the most advanced ideas of design and construction. The desire of some home-makers for perfect simplicity of design, combined with a substantial form of construction, has in this house been fully realized. Not a single ornament mars the pure symmetry of its lines.

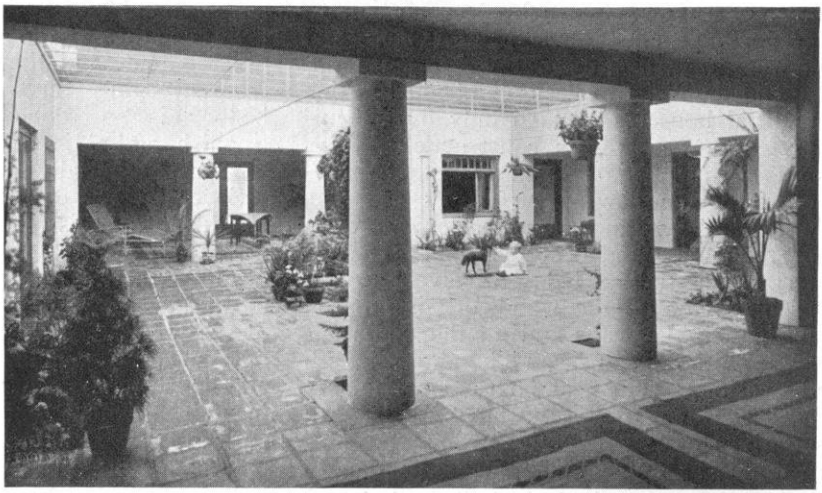
A home like the Timkin house would be full of suggestion to any community. Even the people who at the first glance scoff because of its unusual simplicity come to see that it is a sincere expression of the architect's purpose; its lines are classic and pure, dignified and rare, and most home-lovers soon grow to prefer it to the more ornate



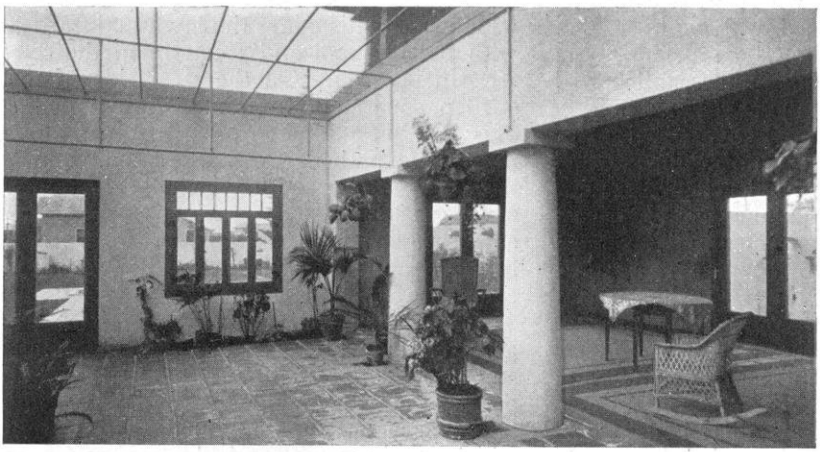
THE PLAN OF HOUSE, COURT AND GROUNDS.

structures to which they have been accustomed. A house of this type helps to form the taste of all who behold it, whether they are aware of it or not, and its influence cannot easily be estimated.

There are several points about the construction of this particular house that deserve especial attention. In the first place its deliberate simplicity cannot possibly be overlooked. It compels attention. It calls to mind Schiller's observation that "The artist may be known rather by what he omits." The architect, Irving J. Gill, with pioneer courage resolved to go back to certain fixed principles like the line, square and cube, and to build from them with as little deviation as possible, omitting everything useless from a structural point of view. He came to see great beauty in straight lines. He grew to love them, to combine and recombine them, and to merge them. He studied the charm that lies in perspective and applied it to his lines of roof, walk and wall. He saw that ornament was a non-essential. So he determined to make his houses depend for their beauty entirely upon the relation of line to



LOOKING THROUGH THE DOUBLE COURT OF MR. TIMKIN'S HOUSE OUT OF THE WINDOWS BEYOND TO THE SURROUNDING COUNTRY.



THE SOUTHWEST CORNER OF THE COURT AND PATIO LOOKING TOWARD THE NORTH END OF THE COURT.

THESE THREE PICTURES GIVE A VERY DEFINITE SENSE OF THE INTIMATE BEAUTY AND CHARM OF COURT LIVING IN CALIFORNIA.

line, of surface to surface, proportion to proportion, and then plant vines and flowers to furnish decoration.

The simplicity of design embodied in this unusual house is equaled only by the unpretentiousness of its construction. It is almost indestructible and withstands successfully the devastating forces of time, water and fire, and the unwelcome inroads of rats, mice and other vermin. The interior construction helps to solve the dust problem, for all the woodwork is finished flush with the walls and all the doors are made without panels and hung flush with the casings. The drainboards and the sink back are of magnesite, a material that can be given a very smooth finish and is impervious to water. The sink is sunk into this magnesite, which is in turn sunk into the cement walls; all the corners and joints are rounded, so that it is perfectly sanitary. There are no cracks where grease or dirt can collect, no exposed woodwork to become sour and unwholesome. The floors and wainscotings of the porches, toilets and bathrooms are also made of magnesite. The bathtub is boxed and covered with this same material up to the porcelain, so that in the bathroom as in the kitchen there can be no unpleasant dampness and decay, and it can easily be kept clean. The floors of the loggias and the inner court are laid in 12-by-12 red brick tile with wide mortar joints. Girders of gas pipe support a copper wire screen overhead, which protects the court from the intrusion of flies and other winged insects.

The construction of this house also makes possible a much-needed return to home privacy. A wall built as part of the house completely encircles the garden and lawn; the dust of the street is kept out to a great extent, and the garden is protected from sweeping winds. In this land, whose history is so romantically colored with Spanish and Mission influence, a walled garden is especially at home.

Several views of the court which reveal the delight of this feature as a home center are given here. The full light of day brightens it, the stars look in at night, the moon floods it with mystery. The windows of the upper rooms look down into its center, where a fountain splashes musically and flowers exhale sweet fragrance. Creeping vines which will soon trace delicate patterns of green around the concrete pillars have been planted, and potted plants are placed here and there, and changed as they pass the time of blooming. Ferns grow on the shady side, sun-loving plants on the other sides. Through the south windows of this court the lawn and garden with the lily-pool and fountain in the center can be seen. On the west side of the garden, separated from the lawn by a hedge of green, is a kitchen garden. The stepping-stone paths are made of four 8-inch tiles set together with wide mortar joints, making 18-inch squares, which are laid far enough apart to permit the grass to grow between and form a frame of green for each square.

The garden wall is of concrete, for the architect has planned to make the house and every detail of it as harmonious and as permanent as possible. The large buttresses are hollow and filled with soil in which trailing vines and blossoming plants are growing. The white wall reflects the

SHOWING ONE VIEW OF MR. TIMKIN'S HOUSE AND THE GARDEN WALL BEYOND: IN TIME ALL THE WALLS OF THIS BEAUTIFUL STRUCTURE WILL BE DECORATED WITH VINES, AND COLOR WILL BE FURNISHED BY THE PATCHES OF FLOWERS AT THE BASE OF THE WALLS AND IN WINDOW AND VERANDA GARDEN BOXES.

colors of the surrounding flowers, the blue of the sky, the green of the grass; there is always a lovely play of color on its white surface as the sun passes over it. It makes an ideal background for flowers of many hues, blue delphinium, scarlet hollyhocks, feathery cosmos, pink or yellow roses. Against the south wall is a cold-frame for the growing of rainy-season dainties.

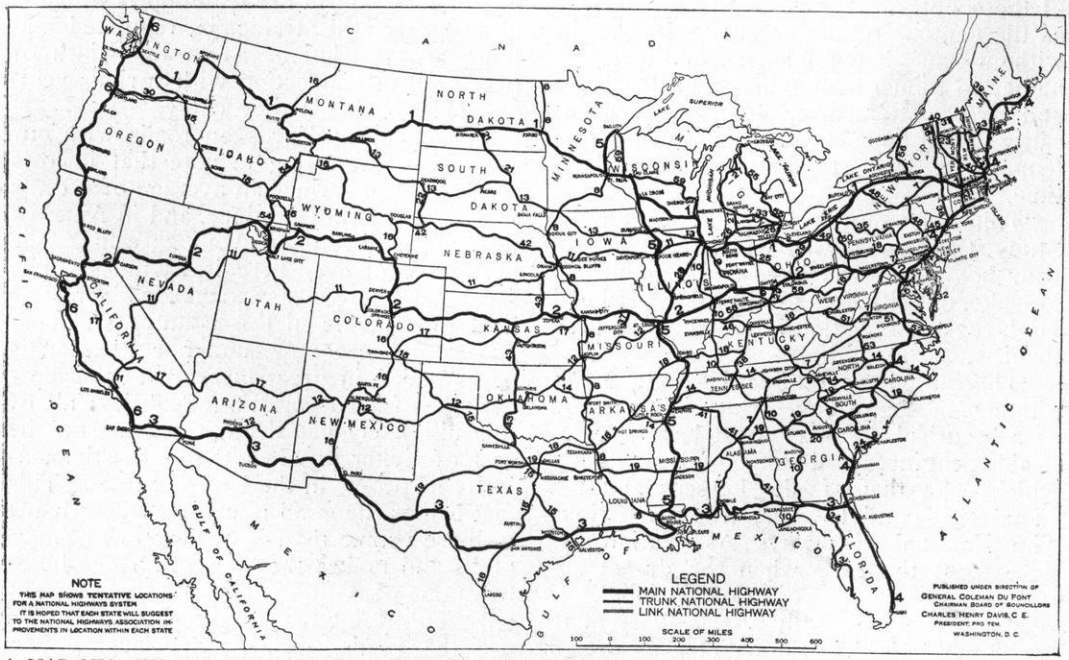
A glance at the floor plan shows another interesting feature of this home—the children's court. Here they may have their own garden and their outdoor nursery. In this sheltered nook the baby takes his nap. On stormy days he plays or sleeps in the inner court, so that his life is practically spent out of doors. The floor plan also shows that the dining and sitting rooms are almost a continuation of the court, so open are they to its sunshine. Both of these rooms have the added comfort and cheerfulness afforded by open fires.

THE VALUE OF GOOD ROADS TO THE NATION

THE National Highways Association of Washington, D. C., is now proposing a plan to take the matter of highways out of the hands of the townships and counties, and even the States to a great extent, and to make it a matter of national endeavor. The Association has outlined a general plan, as a starting-point, which it frankly states is merely tentative and will have to be more carefully worked out according to the needs of the territory the roads cover. This is to be done by competent engineers, who will work in relation to the problems presented by the States through which the roads pass. In this general plan provision is made for six Main National Highways, —Northern, Central, Southern, Atlantic, Mississippi and Pacific; thirteen Trunk National Highways and forty Link National Highways, thus forming a network of roads connecting each section of the United States with a Main National Highway or one of the lesser roads leading to it. The projected highways will cover about fifty thousand miles and will make every State comparatively easy of access from all the other States. As many as possible of the existing roads will be made use of, and they will be improved and extended in every feasible way.

The Association has issued a bulletin which sets forth its arguments for a good roads movement by the nation. To quote from the bulletin:

"It is universal experience that one mile of good road breeds another mile. Put a State-wide good road down anywhere in



A MAP SHOWING THE MAIN, TRUNK AND LINK LINES OF THE NATIONAL HIGHWAYS SYSTEM: FIFTY THOUSAND MILES OF GOOD ROADS WHERE THEY ARE MOST NEEDED.

the country, and in ten years there will be dozens of good roads reaching it from all parts of the State. Put down a system of national highways, built and maintained by the national Government, and the various State Legislatures and county officials would soon see the advantages of connecting all parts of the States with those national roads.

"There are two million miles of roads in the United States. The fifty thousand miles of highways shown on the map are but a fraction over two per cent. of this mileage. But improve these fifty thousand miles into good roads, and keep them good roads by proper maintenance, and fifty thousand miles more would grow almost over night, and then another fifty thousand and another and another, until our great country, with its huge territory, would be crossed and recrossed with good roads, as France is today. . . .

"Study the map and see where your home lies with relation to the highways. If it is on a Main, Trunk or Link line, you will probably like the system. But if you live somewhere that this system does not touch, don't condemn the system. Remember that it is designed to connect the States with each other. It is intended to touch every large city, every State capital, and to bring closer together the several parts of the country. The roads are as straight as the contour of the country will permit, without an impossible expenditure of money to tunnel mountains or bridge lakes and rivers. Remember, too, that your locality would be connected with such a system by a local road in a very short time. . . .

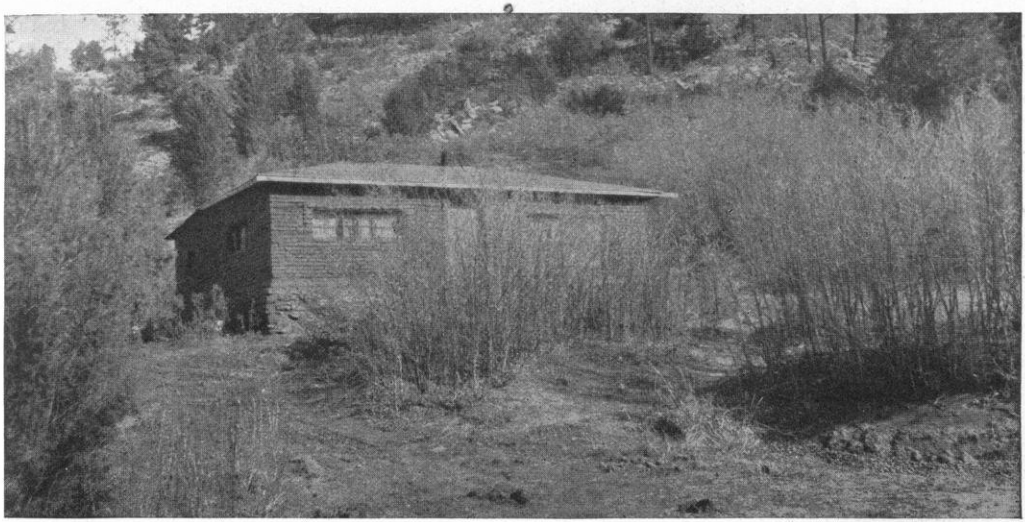
"Think it over. Look at the map. Study it and see how it will affect you and your home. If you have any suggestions to make, or criticisms to offer, the National Highways Association would like to hear them. . . .

"The system as outlined is only a beginning—a suggestion. But if it appears as a beautiful dream, it is at least a practicable engineer's dream, and a dream which—like that of de Lesseps and the Canal—is bound to come true some time. The National Highways Association believes that the time when the dream begins to come true is very close at hand. It is a dream which vitally affects every man, woman and child in the country—a dream which, when it does come true in its entirety, will be found of more importance to our progress as a nation, to our wealth, to our social and political life and to our other dream of absolute independence, than any one movement we as a nation have ever made."

In many States roads have been built by convicts, who have incidentally derived great mental, moral and physical benefit from the labor. This has been, of course, so far only a local solution of the problem of acquiring good roads for a community, but it seems to us that there is no reason why roads planned and laid out under national supervision should not have the actual work of construction performed by this class of labor. This would not only benefit the convict by giving him healthful exercise in the open air, but would prevent his being exploited by unscrupulous contractors, and also relieve the State and nation of a heavy burden of expense. Today convict labor is employed in road-making in Alabama, California, Illinois, Louisiana, Michigan, Minnesota, Missouri, New Mexico, North Carolina, Oregon, Virginia, Washington and Wyoming.

That good roads are vastly important to farmers and through them to the entire nation has been well demonstrated abroad, for the good roads that are everywhere apparent in Europe are substantial evidence of this fact. They are maintained with the utmost care, the traffic is regulated and there are restrictions as to the width of tires used in connection with various vehicles and the loads they carry.

In comparing European roads with our own, it is interesting to note that it costs the European farmer an average of 9 cents to deliver a ton of produce, and in America the expense averages about 23 cents. The average haul over here is 25 miles. The fact that there are 850,000,000 acres of land to cultivate in this country and only 450,000,000 are now under cultivation is perhaps due in great measure to the meagerness of transportation facilities; all of this ultimately has definite bearing on the cost of living problem that faces the majority of people in the United States. This fact brings the good roads movement home to more people than is evident on the face of it, and makes the plea for better highways one of nation-wide necessity, and not only one of interest to those who actually use the roads, whether for business or pleasure.



A COMFORTABLE, DURABLE HUNDRED-DOLLAR CABIN THAT SEEMS TO HAVE GROWN OUT OF THE SOIL, SO IN KEEPING WITH THE LANDSCAPE ARE ITS HOME-MADE MUD BRICKS.

BUILDING A HOME IN THE ROCKIES FOR ONE HUNDRED DOLLARS: BY MRS. TAD POWELL

A HOUSE for a hundred dollars? It cannot be done under ordinary circumstances, but in the mountains, where factory filigree counts for little, a young writer has built himself a *real* home at a cost of less than one hundred dollars. He was architect and laborer, possessing good taste and good craftsmanship. The result is a house that is roomy, comfortable, pleasing to the eye.

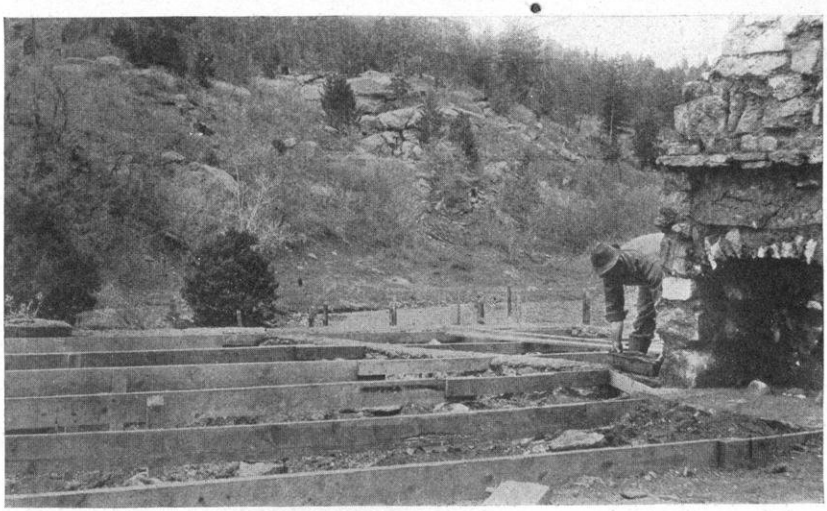
Having more time than money at his command, this amateur architect used the clay and rocks and timber that lay at hand, in a manner so ingenuous as to achieve a home of quite unusual beauty and habitableness. A house of corresponding size and design—there are four ample rooms—must have cost him some thousands of dollars, if erected in a city by builder and workmen. In the Pecos forest in the upper mountains of New Mexico, a country that invites the out-of-door life, such a house is not deemed small.

Built of adobe blocks, upon a foundation of naked rock, with fireplace and chimney of boulders from the hillside, and finished with timbers from the surrounding forest, it certainly belongs to its environment. In a district where the ancient Spanish and Indian ruins are still the most substantial structures extant, this strong, well-built cabin, fortresslike in the solidity of its walls, and finished inside with woods weathered by a generation of New Mexican sunshine and rains, stands as an example of an ideal wilderness home.

The "cabin," for the builder insists upon a modest name for his mountain home, sits low upon the hillside, just beyond a brook and against a background of plumy pines and lordly spruces. It is good to look at. Rich, red-brown adobe bricks, above the brown stone foundation, blend harmoniously with the red-bed clay, stretching away to the distant mountain peaks, and warming, in almost invisible patches, the green of the forest trees.

The irregular precision of the mud blocks; the long, low walls, bisected almost continuously by windows sliding horizontally; the huge rock chimney, protruding above the black hipped roof and bespeaking an ample fireplace within, all bear evidence of an intelligent, if not an experienced, handicraft. Of sturdy architecture and thoroughly in accord with the surrounding wilderness, the type of the house is yet of a kind that would bear transplanting,—like a definite personality at home anywhere.

The lone builder admits that he has conceded to his main purpose everything within reason. To build a house that would be a delight to the eye, and so sympathetic with its setting as to seem to have grown out of it, was his intent. Keeping within the ideal, he hewed to simple lines. For the structural shell he used the materials

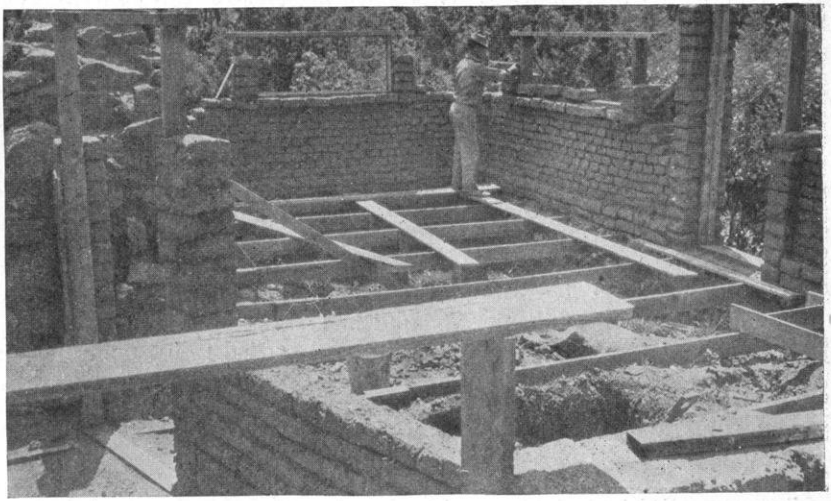


THE LONE WORKMAN PUSHED AND ROLLED HUGE ROCKS FROM THE HILLSIDE TO FORM A CAVERNOUS SIX-FOOT FIREPLACE.

that lay literally beneath his hands,—the earth of the red beds. The clay was at hand for the walls. The woods for the interior, nature-weathered, were there for the taking. He found the warm grays of discarded fence boards softer and richer than factory moldings. The rough, tan building paper on the walls, paneled with strips of somber gray; the inviting easy chairs, home-made and home-stained with earth-browns shoveled from before the door; long, low window-seats; mission-style table of pine, gray weathered,—all echo a restful color scheme. For the outer lines of the mud cabin are correct in their prophesy of an equal simplicity of line and decoration within. The young amateur saved paint bills and achieved results at once cheap and artistic by mixing to his taste the yellows and browns dug from the red clay beds.

His statement that the "cabin," from ridgepole to cellar, cost less than one hundred dollars, including tools and furniture, goes far to prove that the amateur builder has hewn close to the mark, even in the simplicity of those materials he was forced to purchase.

The home-seeker, casting about for a spot in keeping with his ideal, bethought himself of Uncle Sam's big, tree-clothed holdings, and the standing offer made by the Government to lease land for homes for a sum ranging from $5 to $25 a year, the minimum price permitting the use of one acre. He appreciated the advantage of the assurance given by the Government that his home, built in a forest of the national reserves, never would be without a certain isolation and never would lack its setting of magnificent trees. He chose the Pecos forest because it lies in a kindly climate, high up in the southwestern Rockies and close to a railway. He selected his acre of land, for which he pays $5 a year, within easy walking distance of station and post office, and yet well within the protected district. The cries of night prowlers, the midnight scream of the mountain lion and the yelps of frolicking coyotes give assurance that the builder has not sacrificed the



ANY CONVENIENT SPOT AFFORDED THE PECULIAR ADOBE CLAY SUITABLE FOR MORTAR.

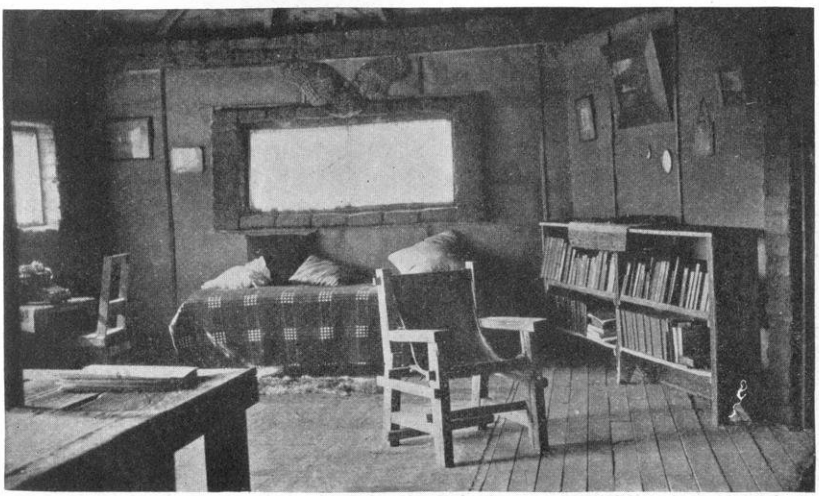
wildness he desired in a compromise with some of the comforts of civilization.

An atmosphere and coloring of age, so thoroughly in accord with the heavy material of which the house is made, has been carefully preserved. Three bricks taken, with inward apology, from the old *estuffa* of the Pecos Indians, a few miles distant, have been built into a wall of the house, mute evidence, in their flinty hardness after three hundred years, of the durability of adobe blocks.

HAND-MADE BOOKSHELVES, TABLE, DICTIONARY STAND, PICTURE FRAMES AND WOODWORK CONVEY THE IMPRESSION THAT THE LIVING ROOM WAS BUILT FOR EVERYDAY WEAR AND TEAR.

The interior of the mountain home has even more distinction than the outside. The adobe walls are covered with a rough, pale brown building paper, which leaves uncovered the projecting dado and frieze and window borders of heavier bricks. The paper is put on in panels, joined by strips of genuinely and beautifully weathered wood taken from the broken-down fence of a bygone homesteader. Sun and rain have brought out some surprising browns and yellows and warm grays that would make bolder the brush of the shop artisan, were he to see what Nature can do in the weathering line, particularly with a palette full of New Mexican sunshine and sudden, drenching rains. There is a long library table made of the old fence boards and a square dining table and sideboard at the other end of the room. For the bookshelves, a dictionary stand and in many other inconspicuous ways, the weathered pine has also been used.

The only novelty in architecture is in the shape of the living room, six-sided instead of the usual four. The great, rough, 6-foot fireplace stands directly opposite the wild clematis-covered doorway. On either side are the bookshelves. Long, horizontal windows at the ends and on either side of the doorway provide ample light to brighten the 36-foot room; 17 feet wide in the center, a sloping wall at either side funnels the heat of the fireplace to the remote corners of the 12-foot end walls.



DEEP BROWN ADOBE BRICK FORM THE FRIEZE OF THE WALL AND BORDER THE WINDOWS MASSIVELY.

The great fireplace was a result of some thought and planning during the earliest stages of the house

construction. The builder began it as soon as he had completed his foundation, using much the same sort of stones, though selecting with more care the flat rocks for hearthstone and mantel. Set in the center of the three-sided wall, the wide, open fireplace is the dominant feature of the room.

Each decorative feature in this room contributes its note of harmony to a rich and pleasing whole. Several pictures have been framed in the old woods. One in particular,—a landscape etched by a distinguished artist,—is simply framed in fence boarding that precisely matches its deeper shadows, a bit of wood that had been slowly acquiring the right gray-brown through thirty years of changing weather.

The weather as artist works slowly, like the early Navajo blanket-weavers, but it works surely, and all that remains for the connoisseur is to be at hand the moment Nature has finished her product, and before it is carried beyond the point of beauty to that of decay.

In each of the diagonal walls of the living room is a doorway, one leading into a sleeping room and the other into a kitchen. Behind the fireplace is a fourth room containing a bath.

Wishing to have doors that would be heavy and substantial, in keeping with the house, the artisan has made them of diagonal flooring. Strong iron latches secure them as they swing shut on four strap hinges of barn-door dimensions.

Chairs, doors and cupboards are colored very nearly like the adobe, though in a lighter shade. The floors have a deeper earth pigment mixed with a stain.

The bookshelves are of an original design. They are placed at an angle that presents the book titles toward the searching eye.

The great room looks more like an ancient manorial hall than the living room of a mountaineer. In a duller country and without the bright Navajo rugs on floor and lounges, the ensemble might be deemed too somber, but, with the long, lateral windows which make the living room a playground of streaming sunshine, and which frame within their casements ever changing pictures of purple mountains and azure skies, the soft red-browns are restful and appropriate.

The building of the charming home required an entire New Mexican summer. Equipped with stout biceps, the young writer decided to make his own adobes, albeit he was warned it was hand-soiling work. He watched the Mexicans at their task and saw how they mixed and managed their clay, but elected to make his bricks somewhat smaller and to use a mold in which he could make two bricks at a time. This method he persisted in, with the exception of a border of larger bricks around the doorways, window casings and at top and base of the walls. The effect of the heavier bricks used in this way has been to give the building a massive and stable appearance. The ground at any convenient spot was his mortar box, and there he mixed the mud with a spade and with water from the brook a few feet away. Lacking straw for mortar or bricks, he made use of the Mexican broom straw growing luxuriantly among the *arroyos*. The only help the amateur permitted himself was assistance in getting out rock for the foundation.

Wherever the ready-made article could be dispensed with, the material was made. This required much time, but saved money and gave to the home the valued touch of the intelligent handicraftsman.

The process of making adobe bricks was a laborious one, particularly in an unusually rainy summer when many of the bricks had to be made a second time after a brisk shower had washed them into the stream or squashed them into mud pies. Rain does not injure the dry adobes, but plays havoc with those still wet. Many times the patient builder was tempted to complete his house in the simpler fashion of modern Mexicans who make stockade walls of cedar posts plastered thickly with mud. But he thought of the house he had planned, and persevered. When there was no prospect of drying weather for some time, he worked in his garden, or with saw and plane.

A patent roofing was used, as being cheap and easy to apply single-handed, though in time it may be replaced with something more in keeping with the whole.

In his six-sided study the forest dweller has a few hundred books, a typewriter, a few etchings and water colors and some forest pictures of his own photographing and enlarging. At one end of the room he dines and at the other he reads or writes. There are seats beside the inglenook and cavernous chairs, burlap-cushioned. The sleeping room is equipped with a "disap-

pearing" wall bed and there are snug lockers about the walls and a three-cornered press. A roomy cupboard conceals cooking utensils in the kitchen and gives to the room the compactness of a ship's galley. The table where the mountaineer stirs his biscuits swings downward when not in use, and the one at which he washes his dishes folds back when a prop is turned aside. For economy of space, the kitchen, and indeed the entire house, is a marvel of ingenuity.

The wildness of the region is surprising considering its accessibility, for it lies at the gateway of a forest of priceless blue spruces of great height and vigor. The mountaineer's only companions are the ever-curious range cattle, a few flashing-eyed range horses and a greater variety of song birds than a city dweller would think possible. For additional music he has a small waterfall within earshot. At night, he hears the long, sharp note of the coyote, followed by its challenging laughter. An owl hoots and there is the wail of the winds that are never still on Old Baldy, Glorieta's guardian mountain.

The click of a typewriter sounded alien in the wild surroundings, but its khaki cover showed that it, too, like house and owner, was dressed for mountain exigencies.

OPPORTUNITIES OF DRAINAGE ENGINEERING AS APPLIED TO THE VAST SWAMP LANDS OF THIS COUNTRY: BY GEORGE ETHELBERT WALSH

NO two generations offer the same opportunities: changing conditions and environments demand of each a new viewpoint and a new treatment concerning problems of development and exploitation. Each nation and generation must face its obligations and responsibilities and achieve success through independent and original works. Examples and principles help greatly, but are not alone sufficient.

The colossal fortunes made in oil, coal, iron and steel may not again be duplicated; but it would be a sad commentary on our national life if all great opportunities in this country were closed to us. National resources lie at our feet in a dormant and undeveloped state. Until we recognize them we can hardly turn them into profitable use. The possibilities of new industries are enormous and while one man waits and considers what to do, another with skill and boldness comes along and exploits them to the profit of himself and his country.

When we regard the possibilities of service awaiting the drainage engineer—opportunities that almost dazzle the mind—we wonder why the vast unlocked wealth stored up in swamps, marshy lands and wet meadows has remained so long untouched. Some day in the near future new captains of industry will reclaim these lands, opening wide to the people new sources of wealth. Then will come another period of prosperity and it will stimulate numberless industries.

Many are alive to the possibilities of drainage engineering, and they are attacking the problem in either a small or a large way with every prospect of success. Fortunately the opportunities in this line are almost coextensive with the size of the country. They will appeal to capitalists who can invest huge fortunes no less than to small land-owners with only a few hundred acres of swamp or wet land.

To get a comprehensive idea of the magnitude of this problem pressing for solution, we must resort briefly to statistics. In the various States of the Union there are, according to official reports of the Government, approximately 82,000,000 acres of swamp and wet land that have never been reclaimed. The present value of the land is practically nothing, but if properly drained and used for agriculture it would be worth at a minimum estimate approximately $8,000,000,000. There would be enough good, fertile land created to provide over 2,000,000 families with farms of 40 acres.

This unreclaimed land is furthermore the richest in existence. Through the countless ages Nature has piled on it layer after layer of fertility by the slow process of growth and decay. The rich soil extends to a depth of from 6 to 10 feet, and its fertility would never diminish.

These enormous deposits of rich soil are not limited to any portion of the country. They are distributed so generally that more than 37 different States can claim a share of the future prosperity following wet-land reclamation. Some States are so rich in unreclaimed swamps that their resources will be doubled and trebled in

value when drainage engineers have completed their work. The distribution of unreclaimed swamp lands among various States is estimated as follows: Florida 29,000 square miles, Louisiana 15,000 square miles, Arkansas 9,000 square miles, Mississippi 9,000 square miles, Michigan 7,500 square miles, Minnesota 6,000 square miles, Maine 4,000 square miles, Georgia 3,750 square miles, Illinois 3,500 square miles, Texas 3,500 square miles, Wisconsin 4,500 square miles, North Carolina 3,750 square miles, Missouri 3,000 square miles, South Carolina 2,750 square miles, New York 2,500 square miles, Virginia 1,600 square miles, Tennessee, Ohio, Indiana, each 1,250 square miles, Western States 10,000 square miles, sixteen other States 5,560 square miles.

This enormous area of low wet land has been passed over for decades without any thought of its future value. Years ago the preliminary work of surveying and examining it was undertaken by the United States Geological Survey with, however, no idea of reclaiming the land. The work was prosecuted simply in the interests of science and geography. No surveyor's chain had ever been stretched across the vast wilderness of the Florida Everglades and the interior of the Dismal Swamp was known only to the Indians and a few white hunters.

Had it not been for the topographical and hydrographical surveys made in the interests of geography, the question of draining this vast swampy area might have been postponed indefinitely. Few had any idea of the extent of swamp lands in the country before the Geological Survey published its topographic report showing that out of 1,637 "sheets," 402 had swamp areas scattered throughout all the principal States of the country. These survey sheets located accurately the boundaries of the swamps and their relation to the natural drainage channels.

Now that a Reclamation Service is in actual operation by the Government, and the wholesale drainage of many swamp lands is in operation, a good idea can be gained of the beneficial work of the Geological Survey. For fifteen years its experts carried on investigations without attracting any particular notice. The engineers examined underground currents and springs, gauged the flow of streams and prepared reports concerning the best way to utilize water resources and to drain swamp lands. So important has become this work of the Survey that no project for the drainage of wet land can be successfully accomplished unless it is based on the careful preliminary hydrographic investigations of this Department.

The possibility of draining swamp lands is a matter of practical engineering, and no more difficult than the irrigation of arid lands, the construction of inland waterways, the prevention of floods, the conservation of water or any other important engineering work. All such projects involve engineering besides physical problems that must be worked out according to local conditions.

The drainage engineer has before him golden opportunities transcending in value the work of nearly all other men. It is his privilege to suck out dirty water reeking with the odor of a million dead plants; to smooth the way for the plow and harrow; to make possible the planting of a million acres with grain and fruits and to bring into profitable fertility waste lands that in the aggregate form a princely domain equal in extent to many empires.

Centuries ago the draining of swamps, morasses, meadows and low grounds was practiced to reclaim soil for crop cultivation. The Greeks drained Lake Copias, near Thebes, and converted it into a valley of surpassing worth wherein plants and flowers grew luxuriantly. The Aztecs had under way the drainage and reclamation of the great valley of Mexico when Cortez landed; and in recent times the Mexican Government has spent upward of $20,000,000 in the development and completion of this project.

In this country the drainage of wet land was carried on in a small way before the Reclamation Service was formed. Around New Orleans thousands of acres were reclaimed for rice cultivation. More recently a good part of the Kankakee Marsh in Indiana has been redeemed; also the wet lands of North Dakota on the west side of the Red River. Wet lands in the vicinity of Charleston, South Carolina, where formerly no one could live, have been converted into truck gardens worth $200 an acre.

One of the well-known areas of wet land is the Everglades of Florida, the largest swamp in the United States, if not in the world. It is 40 miles wide and over 100

miles long; covered in parts with cypress and mangrove trees, sawgrass and wild marsh plants. Until the Geological Survey made a study of it the Everglade Swamp was supposed to be at or below sea level, and hence undrainable; but Lake Okechobee, occupying the center of the swamp, is known today to be 20 feet above the level of the sea.

The work of draining a part of the Everglades has been in progress now for about 5 years, and over 15,000 acres of what was formerly submerged land have been planted with fruits and vegetables. Still nearly 4,000,000 out of the 8,000,000 acres are left to be reclaimed and planted with crop-producing plants. The fertility of the soil under the swamp is the richest in Florida. Located in so warm and subtropical a climate its ultimate value will be enormous. Private, State and national funds are being used today in the drainage of the Everglades, the cost of which when finally completed will be in excess of $1,000,000. Still it is believed that the Everglades could raise three times as much cane for the manufacture of sugar as the country would need for years to come. The American sugar production averages annually about 500,000 tons, and to meet the consumption we import upward of 2,250,000 tons. If the reclaimed land of the Everglades yielded 25 tons to the acre—the average crop produced in Louisiana, our greatest cane-producing State—the supply would more than equal our needs twice over.

The Dismal Swamp of Virginia is a vast morass, the usefulness of which, if drained, was predicted by George Washington, who was interested in a project for reclaiming this land. It is 20 feet above sea level, and located on a hillside sloping gradually toward the sea. Private enterprises have drained parts of the swamp along the borders, the land thus redeemed being found to be the richest in cotton production in the South. The Dismal Swamp, like the Everglades, is a great inland marsh with the waters pent in because of insufficient outlets. If artificial outlets were made to carry away the surplus water these swamps would soon become dry enough for agricultural purposes.

Both of these vast tracts contain permanent lakes, which, while the level of their waters will be lowered, must not be drained off entirely. Lake Okechobee in the Everglades, and Lake Drummond in the heart of the Dismal Swamp, will be forever needed as vast reservoirs to furnish supplies for irrigation. Drainage for these swamps, therefore, means as well systematic irrigation, for these two engineering feats go hand in hand in the work of redeeming the swamp lands from their present useless condition.

Along the coast line from Virginia to Texas there is a strip of land varying in width from fifty to one hundred and fifty miles that awaits the magic work of the drainage engineer to convert it into profitable farms and gardens. Today this land is almost worthless, and so malarial that it is a menace to the health of the country. Mosquitoes breed there by the tens of millions, and fevers make the marshes so uninhabitable that none but the hardiest can exist in their vicinity. Yet this strip of land is readily accessible to large markets and the soil under its water is enormously fertile. The few thousand acres that have already been drained have demonstrated this fact over and over again. The wholesale reclamation of this land would add millions of dollars to the agricultural resources of the Eastern coast.

Within commuting distance of New York City, with its millions of inhabitants, there are thousands of acres of wet lands or meadows stretching along the New Jersey coast, which if reclaimed and converted into producing farms would prove almost as valuable as some city lots in the metropolis. The filling in of these meadows for factory sites has long occupied the attention of real-estate men, who were only held back from the work by its exceedingly high cost.

Now through the coöperation of private individuals, State authorities and experts of the Reclamation Service of the Government, the New Jersey meadows promise prosperity for this section. They are being reclaimed for agricultural purposes, not for factory and other building sites. Recent experiments with small tracts show that drainage for agricultural purposes is not as difficult as imagined. Their proximity to several of the largest markets of the country will render them of infinite value. The great cranberry bogs of Cape Cod, Wisconsin, Long Island, southern New Jersey and other parts of the country represent a feature of the modern reclamation movement. The same is true of the rice fields of the Southern States. Both

of these plants must have plenty of water, and at certain seasons of the year they must be flooded—but by water under control. The land then must first be drained, later irrigated with ditches. Superfluous water must be shut out.

The cranberry bogs are under the control of individual owners, the annual crops paying well. Naturally the draining and irrigating of low wet lands for cranberry culture is costly, but the results justify the expenditure. As a specific illustration of this form of drainage a marshy tract at Manorville, Long Island, that formerly consisted of a series of shallow swamps surrounded by low sandy hills is today held at $1,600 per acre. The value of the virgin marshy land was placed at $10 and $15 an acre. These swamps produce a clear profit in cranberries of $300 per acre.

Profitable cranberry bogs are in truth marshes or wet meadow lands that have been reclaimed by drainage and irrigation in such a way that the field can be flooded at any time by permitting the surrounding water to back up through open gates in artificially constructed dams. The ideal cranberry farm has a swampy, peaty soil over which a top layer of sand has been spread. When surrounded by a dam to control the waters, the plants can be protected from insects and early frosts by flooding the crop. In this way thousands of acres of cranberries are saved each year.

Scattered throughout the country are innumerable small swamps, varying in size from four to many hundreds of acres, that could be converted into ideal cranberry farms at an expense of from $50 to $100 per acre. Their reclamation means the conversion of waste land into profitable farms.

A good many of our marshy lands are only partly inundated or flooded with water at seasons of the year when streams overflow their banks. To all intents and purposes, however, such land is as useless as that which lies under water all the year; though when drained it is so rich that plants grow on it in almost tropical luxuriance.

This fact is illustrated in Illinois, Iowa and South Dakota, where the overflow of streams excludes from cultivation immense tracts of land. In the valley of the Neosho River in Kansas there are over 350,000 acres of fertile soil subjected to periodical inundation. Some years the crops raised thereon are totally ruined by the floods; more or less injury occurs every season. The protection of these lands from the overflow of streams would save big fortunes to the settlers.

The great swamp area of the United States is east of Nebraska and it is over 60,000,000 acres in extent. The total area of water-soaked land is almost equal in extent to the combined States of Illinois, Indiana and Ohio. There is scarcely a State east of the Rockies without swamp lands which take up a large proportion of their productive area.

The Hollanders in western Michigan have reclaimed tracts of wet land and converted them into fertile, profitable farms for the cultivation of garden truck; and a German colony has reclaimed the cottonwood swamp in southern Michigan and achieved similar highly profitable results. The same is true of the delta lands near Stockton, California, where gardens and fruit orchards now flourish. In all such private enterprises the cost per acre has not averaged more than from $5 to $40, and the value of the land has increased from a few dollars an acre to several hundred.

It is estimated by drainage experts that it will cost nearly $480,000,000 to drain and recover all the eighty odd million acres of swamp and marsh land in this country. This is placing the cost per acre as low as $6. If properly drained the land thus redeemed would be worth for farming purposes at least $100 per acre, making the total value about $8,000,000,000. This would make a gross gain of something like 1,700 per cent. on the investment. Besides furnishing highly profitable farms for many families, and increasing enormously the productive output of the country, the reclamation of these swamps would do more toward eradicating certain diseases than any other step the Government could take with an equal expenditure. The elimination of the great breeding-places of mosquitoes would alone compensate for the time and money spent and until the mosquitoes are reduced or destroyed we cannot curtail greatly the spread of malaria and kindred fevers.

A great deal of this vast swamp land is still owned by the national Government or by the States. Its uselessness in the past made it undesirable and it was not taken

up by settlers. Today, however, it is held in much greater respect. The few thousand acres drained by the Government, the States and individuals have proved so highly profitable that it is only a question of time before most of this vast domain will be partly or wholly reclaimed for agricultural uses.

The reclamation of swamp lands by the national Government will be as important a branch of agricultural development in the future as the reclamation of the arid regions through irrigation has been in the past. And while wholesale irrigation on a stupendous plan has been carried on by the Government, States and large corporations, the owners of small areas have not been idle. They have applied like principles to their small farms and have reaped the rewards of their work. Irrigation is today recognized as an essential part of good agriculture even outside the arid belt.

The private drainage of swamps and low places should be undertaken only after a careful survey and study of the surrounding topography. The Government stands ready to help every owner of low land. The Geological Survey can, in fact, furnish a topographical map of almost any swamp in the country, one showing the slope of the land, the general flow of underground streams, the presence of springs and other conditions that are of vital importance. No work of swamp drainage should therefore be undertaken without consulting the topographical maps of the Government. The character of the soil under the swamp has been included in these Government surveys so that it is possible to know beforehand what kind of land will be found when the swamp has been drained.

Swamp land is eminently suited to the cultivation of many crops besides cranberries, rice and semi-aquatic plants. The usual vegetables thrive wonderfully in swamp soil, as is proved by truck gardens in South Carolina. Many of these gardens occupy sites that were originally water-soaked yet today they yield three and four hundred dollars profit per acre.

Meanwhile, there are waiting for us tens of millions of acres of water-soaked land that only needs the removal of the surplus water to show that it is richer in fertility than the virgin soil of our upland districts. Here, surely, is a chance for the country to increase its agricultural values.

HICKORY FURNITURE FOR COUNTRY HOUSES AND LIVING GARDENS

WITH the increasing interest in this country in garden life there is naturally following a demand for useful fittings for out of doors. Outdoor living nowadays does not mean the woods and meadows and far-away country lanes; it means your own garden fitted up comfortably or a pergola with your sewing table in it or wide porches furnished with good durable furniture. And there is really very little chance of comfort in this outdoor living, subject as we are to sudden changes of weather and temperature, unless we can find furniture having some degree of durability. There are many pretty kinds of porch pieces, but the real demand has been for actual outdoor furniture that could be left in place regardless of rain or wind or dust. It has not been an easy matter to design furniture for such purposes, to have it at once attractive and durable, with colors that are inter-

A CHAIR OF HICKORY BOUGHS AND WOVEN SPLINTS OF INNER BARK.

A SET OF PORCH OR LIBRARY FURNITURE OF WOVEN SPLINTS OF BARK AND FRAMES OF OLD HICKORY.

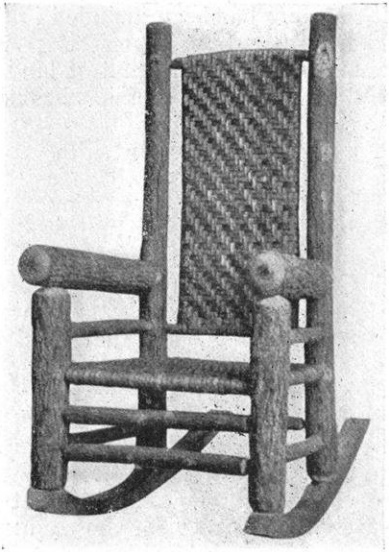
esting and pleasant and satisfactory in the landscape, not too vivid or too crude and yet permanent.

At least one manufacturer has discovered the secret of making outdoor furniture so that it combines simplicity, durability, comfort and a very real beauty. This furniture is made of old hickory and has the fine rugged, reliable qualities that we associate with the famous old statesman, Andrew Jackson, whose nickname, "Old Hickory," was given in his exciting presidential career. This furniture has personality, an air of definite sincerity, its lines are well thought out and convincing and at the same time it is delightfully restful to the body. It has all the effect of rusticity, while it is really very well designed and extremely well made. Indeed, so attractive is this furniture in color and design that it is not by any means limited in usefulness to the lawn or the pergola or the summer-house. It is suited to tea-houses, porches, roof gardens, indeed to the simple furnishing of any room of a real country house. It is attractive in smoking rooms, libraries, dens, any place where the first ideals are for comfort and simplicity.

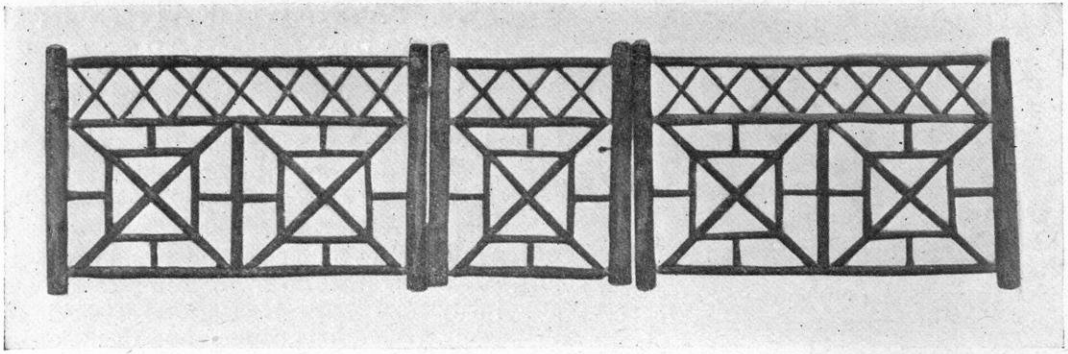
More and more we are desirous in this country, especially in our simpler homes, of furniture which is really suited to a simpler, more comfortable way of living. We have wasted a great deal of money in America on two kinds of furniture; one that was too ornate and elaborate for the homes of moderately well off people and the other, poor grades of furniture that held a certain evanescent style, but scarcely outlasted the putting it in place.

We find that this furniture made of old hickory is quite in harmony with the simpler Craftsman houses and not out of place with Craftsman furniture, as it has the same sturdy principles of construction and well thought out color schemes.

This furniture is distinctive on account of the plainness and simplicity of its design. It has not lost altogether the aroma of the forest. The framework, whether of a



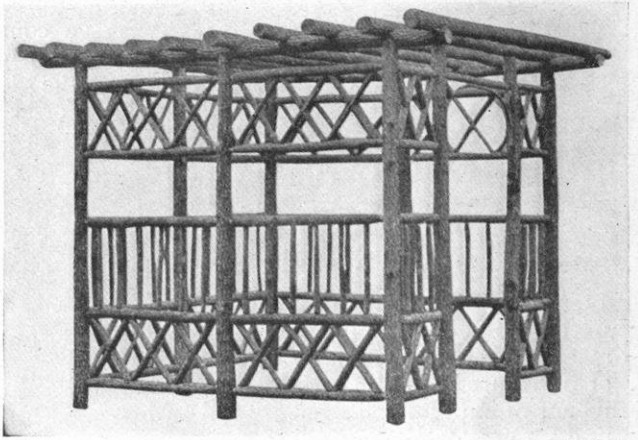
A HICKORY GARDEN ROCKING CHAIR.



RUSTIC FENCE OF SASSAFRAS POLES WITH GATE TO MATCH.

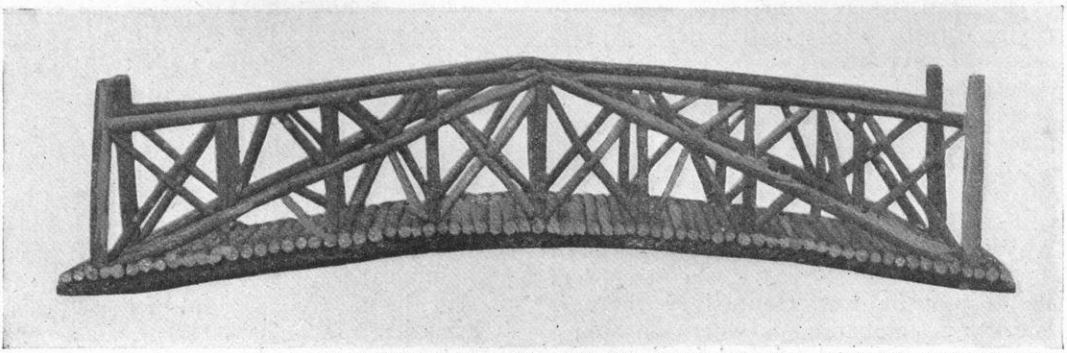
chair, table, settee or more elaborate piece, is invariably of young hickory saplings hewn in the autumn when the bark clings to them closely. The different parts of the frames are mortised together in a way that ensures their durability. The inner bark of the hickory tree is then cut into long strips and woven into the material covering the seats and backs of such furniture. This material has great elasticity and is as strong as any leather. It fits snugly into the body, moving with it and encouraging complete relaxation. Although from this hickory furniture upholstery and springs have been abolished, their absence is not in any way deplored. This furniture is treated neither with paint nor varnish; it needs redoing no more than do the trees in the woodlands.

While the scope of hickory furniture has greatly extended there remains no doubt that for all places subject to strenuous climatic conditions it is the furniture of all others, a fact owing to its harmonious appearance in the landscape and to its ability to last indefinitely. Seasons come and seasons go; but when the garden or veranda furniture is old hickory it has not to be replaced, since time with all its ravishings passes over it unheeded.

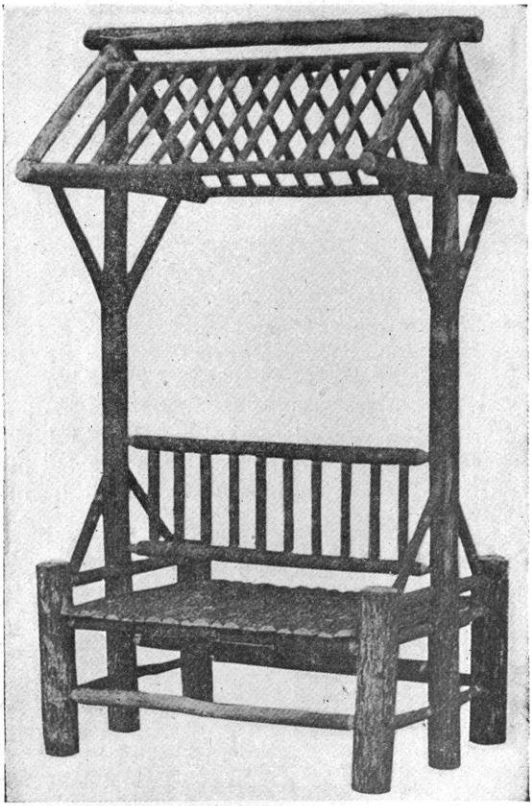


SUMMER-HOUSE OF SASSAFRAS POLES, VERY DURABLE.

The importance of veranda, summer-house and garden furniture can hardly in these days be overestimated, since everywhere the desire prevails to live in the open as much as possible and to do so with slight thought of care. If, with the



A BRIDGE OF SASSAFRAS POLES, WITH THE BARK ON, BOTH GRACEFUL AND DURABLE.



AN ARBOR SEAT OF SASSAFRAS POLES WITH BARK ON.

advent of a shower, every piece of furniture has to be carried in from the veranda or set back in some place where it cannot be injured by rain, the housewife has this act of supervision ever present in her mind. On starless nights she dreads to go to sleep, fearing that rain will come and do damage to her belongings. To get away from such unnecessary worries is one of the arts most in need of cultivation.

Side by side with the many admirable pieces of old hickory furniture are now to be seen other interesting designs in rustic furniture to which a new impetus seems to have been given. Fences, seats, pergolas, playhouses, bridges, arbors and gates, besides whatever is needed for special places, are presented in forms showing great improvements over the old. Usually this new rustic work is constructed with sassafras poles retaining the bark.

When buying either old hickory or rustic sassafras furniture the tree seat should not be forgotten, since there is scarcely a summer home where an appropriate place cannot be found for it.

THE PASSING OF THE ELM: BY CLARENCE MOORES WEED

NO other shade tree has played so important a part in the life of the American people as the white elm. In the early Colonial periods it was planted very generally on streets and home grounds for shade and shelter. Young trees in fields and meadows were left undisturbed to grow to a pleasant maturity that has given grateful shade to many generations of men and their domestic animals.

There were many reasons for this preëminence of the elm as a shade tree. It grows easily from seed, so that seedlings of all sizes are generally available in fence corners and along roadsides. It grows rapidly, so that one need not wait long for appreciable shade. The young trees have a compact root system, so they are easily transplanted. As the trees become larger the branches assume beautiful arching forms that raise them far above houses and highways, and so make them ideal for shade in streets and home grounds. And along with all these advantages the elm had until recent years practically no serious insect or fungus enemies.

Considering these facts it is not strange that for about two centuries the elm has been the most general single tree element in village and rural landscapes. Hundreds of streets have become visions of beauty because of the meeting of overarching branches and thousands of fertile valleys are graced by the great bouquets of elm trees clustered here and there on pastures and meadow lands.

But unhappily for us all, the preëminence of this tree is doomed to pass. Already hundreds of historic elms are being removed because it was found impossible to save them, even at great expense, and thousands of others of less account are dying. One may travel for miles in New England and see everywhere evidence of the decay of these noble trees.

This passing of the elm is chiefly due to the insect enemies that have been introduced from foreign lands. Many native insects attack the elm, but they are of small account in comparison with those that have been imported. The elm-leaf beetle is at present the most widespread of these pests. It has been known here for nearly a century, having appeared in the Hudson River

valley in 1834. It has long been destructive in New York State and has gradually spread over a wide area. Wherever it appeared it did great damage to the elms, eating off the leaves and causing the death of hundreds of thousands of trees.

These beetles can be destroyed by spraying with arsenites. This is a troublesome process, especially in the case of tall trees, but were there no other enemies there might be hope of saving the elms.

The San José scale, which has played such havoc with the fruit trees during the last twenty years, has also attacked the elm. It has been especially destructive to young trees, checking their growth and finally killing vast numbers of them.

In those New England regions where the brown-tail moth has been prevalent for many years, the elms have been literally shorn of their chief beauty through the cutting off of the twigs that held the winter nests of the pests. The repetition of this twig-cutting process for several successive winters has left the trees with short branches that gives no suggestion of the graceful curves of the original forms, and in addition there is a decided loss of shade and a lessening of vitality through the combined effect of the feeding of the caterpillars and the pruning of the branches.

The notorious gypsy moth also has done its part in bringing about the downfall of many a noble tree. These voracious caterpillars rapidly defoliate practically all trees where they are left to multiply and have had a serious effect upon elm trees.

There might be hope of saving the elm as a shade tree were these insects, serious as they are, the only ones to be considered. But there appeared in New Jersey about 1880 a pest against which all effort seems helpless. This is the leopard moth, which is as yet restricted to a narrow region near the coast from New Jersey to Massachusetts. But this insect is gradually spreading and is likely to extend over a large part of this country.

The adult leopard moth is a handsome black and white moth, measuring a little more than an inch in length when its wings are closed over the back. The moths are seen on the wing through the summer, but are especially abundant early in July. They lay small oval eggs in the bark crevices of the larger branches of elm trees, commonly high up and but one in a place. One female moth may deposit upward of four hundred of these eggs. In about ten days each egg hatches into a small caterpillar that burrows through the bark of the branch to the sapwood inside. Here it continues to feed for many weeks. If the branch is but a small twig the caterpillar hollows out the center; if it is larger the caterpillar burrows beneath the bark.

If the egg was laid in July the caterpillar grows to a length of an inch by autumn. Then generally, in October, it burrows deeper into the wood to make a cavity in which it passes the winter. The following spring it begins eating again, devouring more woody substance than before and attacking larger limbs. It thus continues to feed throughout the spring, summer and early autumn, becoming quiet on the approach of the second winter, which is also passed in a channel in the wood. Then on the coming of the second spring the larva feeds for a short time, making an oval cell next to the bark and eating nearly through the latter. Within the cell it changes to a brownish pupa in May or June—nearly two years from the time the original egg was laid. Two or three weeks later the pupa pushes its way through the thin shell of bark and partly out, the pupa skin breaks open and the leopard moth comes out, thus completing the four stages of the insect's life.

If the elm is no longer to be planted, what shall take its place? The answer depends upon various conditions. Immunity from insects and disease is fast becoming one of the chief requirements of a desirable shade tree. In regions where the cottony scale has not become a pest, the silver or white maple is one of the best substitutes for the elm. It grows rapidly and will send its branches high up when growing near a house. For a street tree in residence districts the Norway maple gives density of shade and uniformity of growth though it tends to branch too low. For small yards, the various white birches are ideal, as is also the gingko or maidenhair tree.

In rapidity of growth no trees can equal the poplars. For an erect species the bollena is very attractive and should more generally take the place of the Lombardy poplar. It is easily possible, however, to overplant the Carolina poplar and give an air of cheapness to a community.

The chief need in our tree planting, anyway, is a greater variety and a closer adaptation of species to local conditions.

ALS IK KAN

NATURE'S CITIZENS

NATURE-STUDY has become the school ideal of the day in America. We have nature-study departments in our magazines, courses for nature-study in our schools, lectures upon nature-study in clubs and colleges, we have acquired a national glibness on the subject; we talk fluently about birds which we have seen in photographs, flowers we have studied in sketches and woods which we know from words. We are certainly nature students with all the enthusiasm and intenseness and superficiality we Americans know how to lavish upon any fad of the moment,—mental, physical or spiritual.

But how many of us are really *studying Nature,* living with her, close to her great kind heart, with confidence in her wisdom as a teacher and respect for her laws? We have yet to learn that nature-study and studying nature are two totally different occupations. One is accomplished with walls on four sides and a roof overhead and the other out under the sky, with the companionship of fresh winds and sweet smells. Nature-study is like making friends by way of books or letters, studying nature is winning friendship by way of smiles and handclasps and kind voices.

To be sure nature-study may be better for young folks than other things which are worse for them; but no desk can take the place of fields, or libraries of forests; indoor instruction cannot be made a substitute for outdoor work or intellectual theories for actual experience. If you want to know Nature you have got to work with her and for her, and the way to become intimate with the woods and the birds and the flowers is to live with them, companion them.

From an early Puritan respect for learning, born when our college men were numbered and needed, we have grown to regard all bound-up knowledge as more important than first-hand experience. We think it fine to drink from the little cup of printed opinion rather than from Nature's great fresh spring of fundamental wisdom. And the longer our children are shut up in close rooms with printed pages before their weary eyes, the more we expect them to accomplish in the world, whereas we are really holding them away from the source of all accomplishment—Nature.

I sometimes question if we really know anything which we have not experienced. Can we more than just apprehend people or birds or flowers that we have only read about? If we are to get our knowledge of life wholly from books do we not in a way take it for granted that all things are stationary, whereas in reality the wonder of Nature is her changes, her moods, her ever-varying vital personality? Real people are never the same from moment to moment. No living thing can be converted into a fact, hedged around with definitions, and continue to be an inspiration. Nature-study may tell a child what color a bird's egg is and what are the habits of the mother bird in her care for her nest and subsequently for her babies, but how can it ever convey the wonder of the instinct of the mother bird in planning her nest, making it a cozy home, in her care for her young and her subsequent adjustment of herself to life when the little birds all fly away. The history of the whole human race can be followed in watching one pair of birds from the beginning of the selecting of a home site to the fluttering of the wings of the young birds as they turn their back on their parents. But it is necessary for a child to *see* this in order really to understand it, and to understand it is beginning to understand life.

It is so with all wisdom. To get it fully and finally, it must be had from life experience, not from the lecture platform. Children must know birds and flowers, must know the secrets of the woods, the mystery of the mountain-top, from actual life with them rather than the wordy eloquence of the teacher or the bound volume. And the knowledge of nature must come in simple ways, as a part of daily experience not separated from work, from simple living. A boy should learn to know a lark from the thrill in his heart, not from the power of his memory. In fact, there is no way in the world to educate children in the truest sense of the word except out of doors where their work and their play and their study are so intermingled that the real essence of life flows into their hearts and minds simultaneously.

Here of course I must stop to say what I have so often said in THE CRAFTSMAN, that my purpose is not to suggest the doing away of writing books or of studying them. Children and grown people both need some knowledge of what other children and grown people have done. In order to

understand our own life, it is well for us to understand other people's lives. We want to know the history of the world to appreciate our place in it; the art of the world to know what our own art is accomplishing; the science and philosophy of the world to discover our relationship to it; but for the development of character, the enlarging of our sympathies it is necessary to live with Nature and love her ways for at least a few years during the formative period of life.

And so it is a bit of a problem to me to know whether or no nature-study with its little helps is not taking our children away from studying Nature with her great lessons, whether or no we are not training them to be contented with the superficial book knowledge of life instead of training them out *among the facts of life* so that they can never escape the lessons they have learned in their youth. As I have studied young people it has been my experience that if the early training for a boy or a girl is out on a farm where there is plenty of work, plenty of chance for rest and sleep, all the wholesome things of life, eventually the desire to gain the historical aspect of life from books will come, but that you cannot train children first with books and then try and instill into their hearts the real understanding of nature which is essential to their development. And as a matter of fact you cannot separate book learning from life learning and ever make a success of one or the other. Children are born with a natural desire to live, to construct, to make good, a desire so deep in the heart of every boy and girl that we grown folk often fail to recognize its presence.

The difficulty that has been experienced in taking children out of the mills and putting them in schools in some of our factory towns is not because children love the hardships of the mill but because they do not want the hardships of school life. They want the freedom of their little citizenship, poor as it is. If these same children were put out on farms and allowed to live sane healthful outdoor lives you would find it difficult ever to get them in the mills again. But you cannot shut them in rooms and strain their unprepared brains and leave no bodily freedom and in any way instill in them what is called "a love of learning." The boy who wants to make a wagon to use on his farm will want some sort of a book to help him if he has not a teacher; the boy who has anything to do with cows, who is responsible for the amount of milk given, who has a chance to make his spending money from his little dairy, will be glad to know of anything scientific that has ever been printed that will help him in his desire for efficiency.

In other words the time has come to put book learning where it belongs as the real help to efficient living. Here in America, especially, because the training and the ideals have been in that direction, boys are born wanting to earn their living. If a boy has had a chance to be intelligent he wants to earn his living in the most capable way. Books adjusted to his life will help him do it, books alone will not help him do it; nine times out of ten they will make him a useless tragic product of our civilization, if they do not land him in the criminal courts.

In old New England days we let ourselves establish a certain class distinction between the man who knew books and the man who knew life, and strangely enough it was in favor of men who knew books. We are waking up here in America to the absurdity of that, in fact, to the absurdity of all class distinction, and the time has come when we are going to center our interest on the man who gets at life first hand, helps his children to do so, who respects Nature as the greatest teacher in the world, and who gets from her the utmost that is possible for his boys and girls.

THE CRAFTSMAN RESTAURANT

ONE of the most practical features of the new Craftsman Building will be the Craftsman restaurant which will occupy the two top floors. I have always felt about a restaurant as I have about the question of home-building, that the very simple, beautiful, wholesome place was the thing that American people were eager for and also I have felt that such a restaurant as this really belonged to the complete scheme of Craftsman activities. Naturally my restaurant will be allied closely with Craftsman Farms at Morris Plains, and fresh, wholesome food that people associate in their minds with a country table will be brought in from my own gardens, so that the restaurant table will be supplied with milk, eggs, fruit, vegetables but a few hours old and rushed in in the early morning in Craftsman trucks from the farm to the restaurant. Even the drinking water will be brought from the springs high up on the hills of Craftsman Farms.

BOOK REVIEWS

CONCRETE PAVEMENTS, SIDEWALKS, CURB AND GUTTER: BY THE INFORMATION BUREAU, UNIVERSAL PORTLAND CEMENT COMPANY

THIS book, of supreme usefulness to all those interested in concrete construction, emphasizes above all else, the close alliance between pavements, sidewalks, curbs and gutters, discussing besides the similarity of the materials used and the like method of their construction, while at the same time working toward the disappearance of defective work in this substance. Each year the excellence of concrete for the purposes mentioned has become more widely appreciated; its ultimate success, however, being dependent on the selection of proper materials and the care and skill employed in their manipulation. To a simple and sensible explanation of the leading principles to observe, the text and illustrations of this book are directed.

To obtain satisfactory concrete construction only those materials which are clean should be used; and a modern method for washing the material, while at the same time separating sand and gravel, presents one of the distinctive illustrations of the book. There is included a table to show the comparative value of sands, also some excellent figures illustrating their varying degrees of coarseness, all implying that a great deal of knowledge is set forth concerning sand, limestone, granite and other materials, besides those to avoid in making defectless concrete. A caution also is given against using such water as is taken from stagnant pools, while suggestions are made for the treatment of soils in cases where drainage is imperfect.

The increase in the use of coloring matter for concrete sidewalks, roadways, curbs and gutters is explained as being decidedly advantageous since it reduces greatly the glaring effect of the substance when left untreated and played upon by sunlight. Not only the proper methods of successful concrete construction are emphasized throughout the pages of this book, but various causes of failures are explained, opening the eyes of would-be experimenters. For with concrete, as with other things, it is through a thorough understanding of causes of failures that one learns what to avoid in the future.

Not the least interesting part of this book is that referring to curb and gutter construction; to the uniformity and beauty that has been brought into such structures and to the many ways in which they are now employed. About flower beds and fountains, throughout informal gardens and wherever a firm holding border is desired they have become frequent.

Since the durability of concrete, its absolute neatness and trim appearance have at length gained the approbation of those seeking to make the out-of-door world livable in various ways, the simplest and most generally used of modern tools, recognized in concrete construction are herein made known to the reader by means of both illustrations and text. In fact he who would build about his house roadways, pavements, curbs or gutters can, through following the information herein given, set about the work single-handed and bring it to completion provided of course that he has a natural aptitude in this direction. A scanning of the pages of this pamphlet will in any case bring the construction of concrete near to the comprehension of the home-builder and open for him the best methods of turning it to his purpose. (Published by the Universal Portland Cement Company, Chicago, Pittsburgh, Minneapolis. Well illustrated. 96 pages.)

THE FARMER OF TOMORROW: BY FREDERICK IRVING ANDERSON

THAT the farmer is destined to change his ways, his theories and his inherited practices is proved no more conclusively than by the numbers of books that have of late been written proclaiming the need of his complete evolution. Mr. Anderson's message is of cheerful import and in direct opposition to the theory of von Liebig, that of deterioration of the soil; since it goes to prove, backed by the authority of the Bureau of Soils, Department of Agriculture, Washington, simply that soils do not wear out. "The soil," Mr. Anderson quotes, "is the one indestructible, immutable asset of the nation. It is the one resource that cannot be exhausted; that cannot be used up. It may be impaired by abuse but not destroyed."

Fatigue is indeed the poison of the soil. In this connection the rotation of crops, cultivation and the conservation of mois-

ture are recommended to give it the refreshed vigor of youth. That the soils of China, after 4,000 years of intensive cultivation, are practically not impaired,—in fact the richest in the world, give point to this theory,—one so logically upheld that all others must seemingly succumb before it.

At present only 25 per cent. of the land in the United States is producing food, a condition which causes the author to state that America has not yet begun to farm. Free land in this country is now a thing of the past. The farmer is obliged to consider the value of his land as an element in his financial success; he has to look well to its continuous fertility.

For this and various other reasons this book holds a wealth of important information for the farmer not only of tomorrow, but of today. (Published by the Macmillan Company, New York. 308 pages. Price $1.50 net.)

MICHELANGELO; A RECORD OF HIS LIFE: BY ROBERT W. CARDEN, A.R.I.B.A.

THAT Mr. Carden has executed so large and amplified a book about Michelangelo is only another proof of the abiding interest which this master holds in the minds of humanity—a man whose stupendous works show an increased cause for wonder with the advancement of time. The book is in the form of letters, somewhat over two hundred having been selected from more than double that number now carefully preserved. These letters enable the reader to gain, as no other work written about this great man has done, an insight into his thoughts, his strong tendency towards domesticity, his peculiarities, his acts, his trials and his pleasures in the various instances which made up his daily life. His overwhelming generosity to his family, composed of father, brothers and nephews, is accentuated in these letters, as one of the most vital phases of his nature. His dependence on the favor of a pope or some other man of high estate, was with him, as with all great men of his time, one of his misfortunes, masked under the guise of favor.

Those who have seen his works in Rome and Florence and who have lingered for a while in the Casa Buonarrotti will appreciate Mr. Carden's book as affording an intimate glimpse into the life of this lonely soul, who while living was unrivaled and who in dying left behind him such monumental works as to have been the inspiration of the ages. (Published by Houghton, Mifflin Company, Boston and New York. Illustrated. 335 pages. Price $3.00 net.

ANCIENT STAINED AND PAINTED GLASS: BY F. F. SIDNEY EDEN

THE difficulty of the subject that Mr. Eden has handled with considerable skill is found in the very fragmentary remains of stained and painted glass that are at this date remaining in ancient buildings. Still enough about them is written and sufficient references are made to a number of examples to enable the reader to gain a very fair appreciation of the art, not only on its own account but in its connection to architecture.

Neglect, side by side with violence, have been in the past the enemies of ancient painted glass. In the middle of the XVIIth century, glass-workers were brought from Gaul to England, the use of stained or painted glass then replacing the oiled cloth generally used to close window openings. Since then for one reason or another its destruction has been continuous.

But for those who would delve into its designs, its craftsmanship and its colors there are extant in England alone enough examples to set him on his way. The author adds a few words about the present treatment of old glass, its preservation and the reasonable use to which it may be put. (Published by G. P. Putnam's Sons, New York. Illustrated. 160 pages. Price 40 cents net.)

THE RIGHT OF THE STRONGEST: BY FRANCES NIMMO GREENE

LIKE other stories of the Southern mountains of the United States, "The Right of the Strongest" takes for its motive power the fierce resistance of a scattered people, proud of their lineage and independent in their ideals, against the ambitions of one, *John Marshall,* a pioneer of progress, a man having staked his success on the carrying out of his mammoth money-making scheme.

This *John Marshall* conceived the idea of turning the valley hedged in with mountains, into a lake yielding impenetrable power for factories and mills, turning the wild solitude of the people into a rushing, tumultuous stream of progress.

Then into his life came *Mary Elizabeth*

Dale, a daughter of the mountains, but educated elsewhere; *Mary Elizabeth* who had returned to offer the benefit she might to her people; *Mary Elizabeth* of uncompromising honesty, of high-spirited devotion to her rude kin.

The paths these lovers trod were strewn with hate, fear, misinterpreted conceptions, the villainy of jealousy and in the end brother fighting against brother to the death. But love eventually triumphed, or rather its cry became stronger than *Mary Elizabeth's* ideals and its power sufficient to curb the vengeance of *John Marshall.* The local color of the book is rich, singing loudly of atmosphere; its action is plentiful, the humor of the rustics is unstrained and spontaneous.

If there is as an outcome of the struggle, a compromise between ambition and idealism it is at least such a one as must inevitably be expected whenever the right of the strongest is established. (Published by Charles Scribner's Sons, New York. 401 pages. Price $1.35 net.)

BOBBIE, GENERAL MANAGER: BY OLIVE HIGGINS PROUTY

FOR short they called her *Bobbie,* her real name being *Lucy Chenery Vars.* The title of General Manager was given to her because as the oldest daughter of a motherless New England family she ran everything from garret to kitchen, comforted her father, listened to her brothers' plans, managed and even tempered their love affairs. *Bobbie's* I's were delightful, naïve and free from egotism. At the age of sixteen she had been, by her own confession, and ever since she could remember, the mother of five children, two older and three younger than herself.

Bobbie was never afraid. She could enter a college town on the day of a great football match, search for her recreant brother and leave him in possession of the money she had sacrificed herself to secure. She could cleverly break off an undesirable engagement of her younger sister without intruding herself or her opinion; she could drink of disappointment and sorrow and yet be ready for the happiness following in its wake. *Bobbie* liked adventure and it came to her in the way of daily happenings in the home life.

Throughout the book the reader has the sensation of growing up with *Bobbie,* of being led past the days of full youth when her I's were humorous to times of uncertainty, self-constraint and sadness, and again on to her new field of management and happiness. For love captured the boy-girl *Bobbie* and turned her at length into a somewhat shy, sweet woman.

The book is replete with freshness and vigor and should be on the library table of every home in which there are girls and boys, young men and women. In make-up it is neat and attractive, the paper and printing especially commendable in a book of its price. (Published by Frederick A. Stokes Co., New York. 354 pages. Price $1.25 net.)

AMERICAN ART ANNUAL, VOLUME TEN: BY FLORENCE M. LEVY, EDITOR

IN this large book there is comprised an illustrated record embodying the year's prices of 2,265 paintings that have been sold, reports of 749 museums, societies and schools, besides a considerable amount of text devoted to "Who's Who in Art" and an address entitled "The Importance of Art Museums in Our Smaller Cities," first delivered by Robert W. de Forest at the Third Annual Convention of the American Federation of Arts in Washington, D. C.

In this address Mr. de Forest urges that small art museums should be sprinkled over the country somewhat after the manner of Mr. Carnegie's libraries. The scheme he would have carried out by the philanthropic efforts of some rich man or else by arousing in small cities the interest of the citizens through propagandistic methods.

As a book of reference the American Art Annual proves seasonable and should be of service to all those who follow in the wake of art. (Published by American Federation of Arts, New York. Illustrated. 422 pages. Price $5.00 net.)

FOOD AND FLAVOR: BY HENRY T. FINCK

ON the importance of flavor in food the author throughout the pages of this book, lays his greatest stress. In fact, he asserts that the cause for dyspepsia, the American plague, is the lack of flavor in much of the food that is eaten in this country; while he makes also a strong plea for the cultivation of a more gastronomical sense than is at present general. Mr. Finck upholds the French as masters of the science of selecting and preparing food bene-

ficial in flavor and fragrance as well as in nutritive properties. In his predictions, however, the author is optimistic that the future will raise the standard of American cooking to the basis of an exact science making an appeal to the most intelligent in the land. The work of the Government which through its agricultural experiment stations has scanned the standard of foodstuffs, is praised; also Luther Burbank who has worked unceasingly toward perpetuating high and agreeable flavors.

The book is pleasingly written and while in no sense of the word a recital of recipes, it still gives many hints and suggestions invaluable to the housewife. Moreover it encourages farmers to furnish for the markets various fruits and vegetables that could be raised for their individual profit as well as the general good. (Published by The Macmillan Company, New York. 594 pages. Illustrated. Price $1.50 net.)

CARPENTRY: BY GILBERT TOWNSEND, S.B.

CARPENTRY and joinery seem to be, even in these days of steel and concrete construction, almost as necessary to the well being of the populace as twenty-five or more years ago when wood, practically unrivaled by other materials, held strongly its sway; but as buildings have changed in character, often becoming more elaborate, the expert workers of woods have shown their abilities in other ways than formerly, meeting the demands of the present. Today the carpenter, likewise the contractor, is faced by many problems. In order to give light on mooted subjects as well as assistance to home-workers in woods, the self-taught man, this book, carefully written and simple in its explanations, has been offered to the public. (Published by American School of Correspondence, Chicago. Illustrated. 258 pages.)

THE SWISS CHÂLET BOOK: BY WILLIAM S. B. DANER, B.S.

THE Swiss Châlet Book is probably as complete and pleasing a presentation of this quaint style of architecture as has yet been given to the American public. To those interested in this phase of architecture, either for purposes of reproduction or merely for the pleasure of a full comprehension of its idiosyncracies, it cannot help but prove a welcome assistance. (Published by The William T. Comstock Company, New York. Illustrated. 151 pages. Price $2.50 net.)

THE NEW TENDENCY IN ART: BY HENRY R. POORE, A.N.A.

POST-IMPRESSIONISM, Cubism and Futurism are all passed in review in this little book, ably written and presenting various phases of this art which pique and interest the reader. Moreover, a number of suggestions are made, opening fields for thought and thereby inspiring an individual comprehension of many of these works, new and perplexing in the extreme. (Published by Doubleday, Page & Company, New York. Illustrated. 60 pages. Price 75 cents net.)

SCHOOL HYGIENE: BY E. R. SHAW

DURING vacation, before the rush of the school year has started, is a particularly good time for parents and teachers of schoolchildren to read a book on School Hygiene. A volume dealing with this subject, recently published, not only casts a searchlight upon the crimes of negligence and thoughtlessness that have been often committed in the past in both the arrangement and equipment of our schools, but suggests ways in which school conditions might be improved. In the introductory chapter the author makes a plea for more play in schools; he contends that it is the normal way for children to learn and is productive of much better results than can be obtained by the puritanical doctrine of mortifying the flesh for the good of the soul that still prevails in many of our schools. Besides part of the introduction, one whole chapter is devoted to this subject, and suggestions are given for the arrangement of playgrounds and the uses to which they may be put.

No attempt is made to outline any definite change in school curriculums, and the rest of the book is mainly devoted to the location of school buildings, their lighting, interior equipment, the necessity of cleanliness of pupils, water supply and drinking appliances, toilet facilities, air in schools, ventilation, open-air schools, heating, medical inspection, common defects of children and their treatment, hygiene of utensils and books, cleaning of schoolrooms, the work of the janitor, and the last chapter deals with the uses of disinfectants. A number of illustrations bring out various points the author wishes to emphasize, each chapter

ends with a list of topics for personal investigation of teachers, and under the head of Selected References are given the titles and authors of books on kindred subjects that would be significant for teachers and parents to know about. An index for the speedy finding of any topic treated appears on the last few pages of the book, and altogether it is a very practical and valuable volume for anyone who is at all interested in the subject. (Published by The Macmillan Company, New York. Illustrated. 369 pages. Price $1.25 net.)

"GROUP EXHIBITIONS"

IF one wanted really to know what could be accomplished by doing away with the jury system in the exhibition of paintings, a visit to the MacDowell Club during the Spring exhibit would have been a revelation. It is probably the best exhibition that has been shown there along the lines of Robert Henri's group plan, and it proves beyond a shadow of a doubt that this plan makes possible the democratic picture show as nothing else that has ever been tried in this country, or so far as we know, in Paris. There is no use trying to do away altogether with restrictions in showing any number of pictures. You cannot open up the doors of a gallery and say that it is a free-for-all show and get good results. There has got to be some sense of responsibility, individual and public, before a group of pictures will be of sufficient importance either for artists to want to exhibit or the public to want to investigate them. The minute all barriers are down, all interest is gone. But what we want in this country, and what we should have, and what Robert Henri's plan provides for are barriers of the artists' own making. At the recent exhibition there were four groups of black-and-white drawings and pastels shown. James Preston exhibited a number of his friendly, tender little landscapes with their inescapable charm. May Wilson Preston's illustrations of her overdressed, smartly vulgar people were exceptionally humorous, a revelation of Mrs. Preston's knowledge of human nature and her capacity for frank satire. It was a good thing to see some of Reuterdahl's water colors hanging in the MacDowell Club, of which he is a member, and nearby we were interested in Mr. Henrik Lund's portrait sketches in lithography, most of which we have already shown in THE CRAFTSMAN. A dominating note in this group was Edith Dimock's interesting character sketches, showing a fearless color sense and a deliciously sympathetic understanding of the life just below Washington Square. John Sloan's lithographs, etchings and drawings were a valuable contribution, and we were glad of a chance to see some of Robert Henri's distinguished sketches. Probably few of those who looked with delighted interest on Marjorie Organ's clever caricatures know that she is the gifted wife of Robert Henri. There were some fresh young sketches by Carl Springhorn, and Glenn O. Coleman's work of New York streets, which we have shown in THE CRAFTSMAN in the past, were somber and distinguished. Rhoda Holmes Nicholl's flower studies held our interest with her marines. There was also an exceptional collection of drawings by Henry Raleigh, charming studies by Luis Mora and vigorous sketches of modern life by Maurice Becker.

TRAINING MEAT INSPECTORS

IN the large towns of England the inspection of meat is carried on with considerable care in spite of the difficulties which attend such inspection because of a large number of private slaughter houses. The Royal Commission on Tuberculosis recommended in its 1898 report that in the future no person should be permitted to act as a meat inspector unless he had passed a qualifying examination. With a view to carrying out this recommendation, the Royal Sanitary Institute in the year 1899 established an examination for meat inspectors, and the certificate given to successful candidates is acknowledged to be an indication of competency of a high order. Up to the present about 800 certificates have been granted. It is impossible to obtain the certificate of the Institute unless a course of practical training has been undergone. A few sanitary authorities have been sufficiently enlightened to give one or more of their sanitary inspectors leave of absence to enable them to take advantage of the special training. A ten weeks' course is sufficient to prepare a man to take the Institute examinations, and there is an increasing agitation to urge more of the sanitary officials to give their inspectors this opportunity to become more efficient.

From *The American City.*