

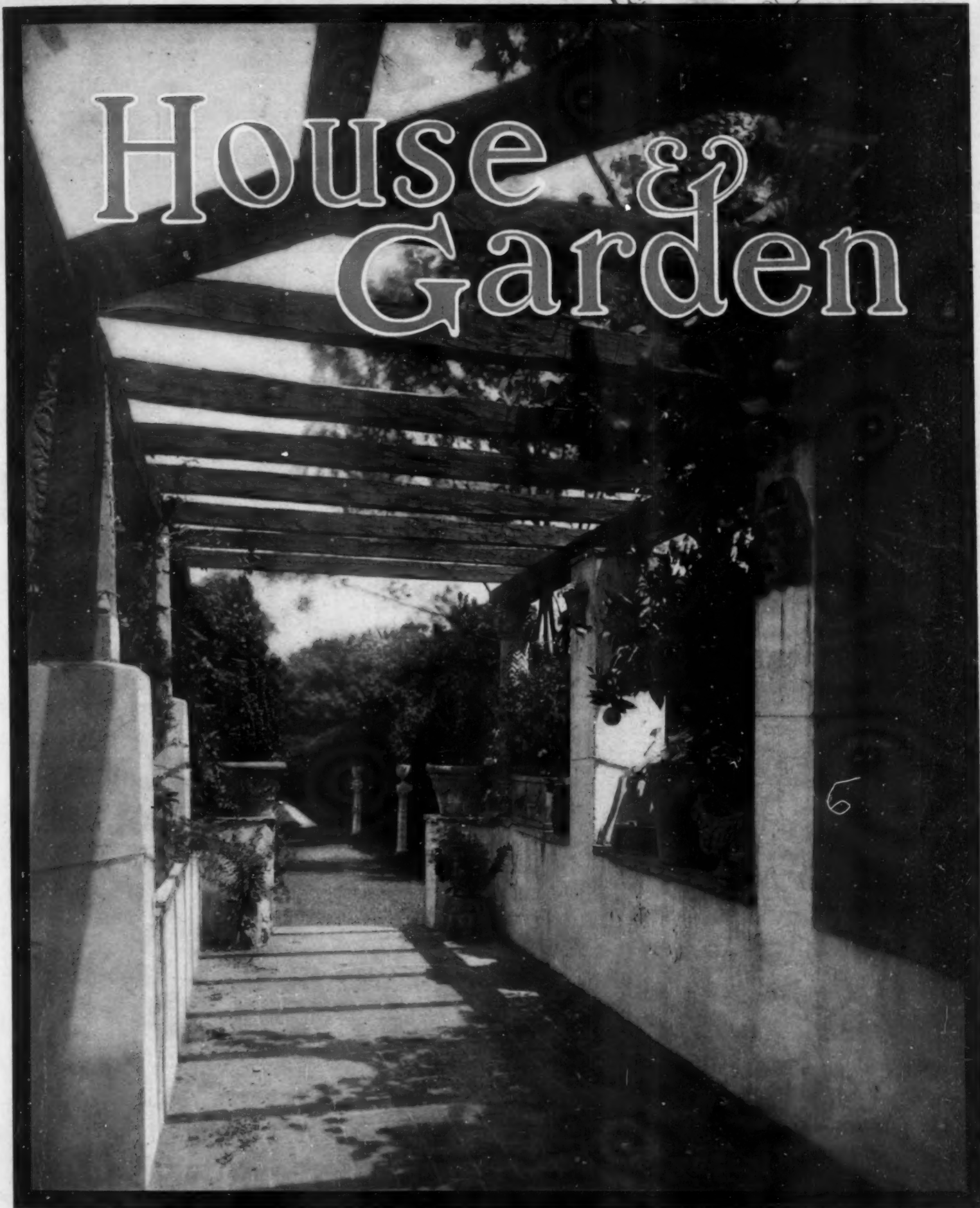
VOL. IX

MAY, 1906



No. 5

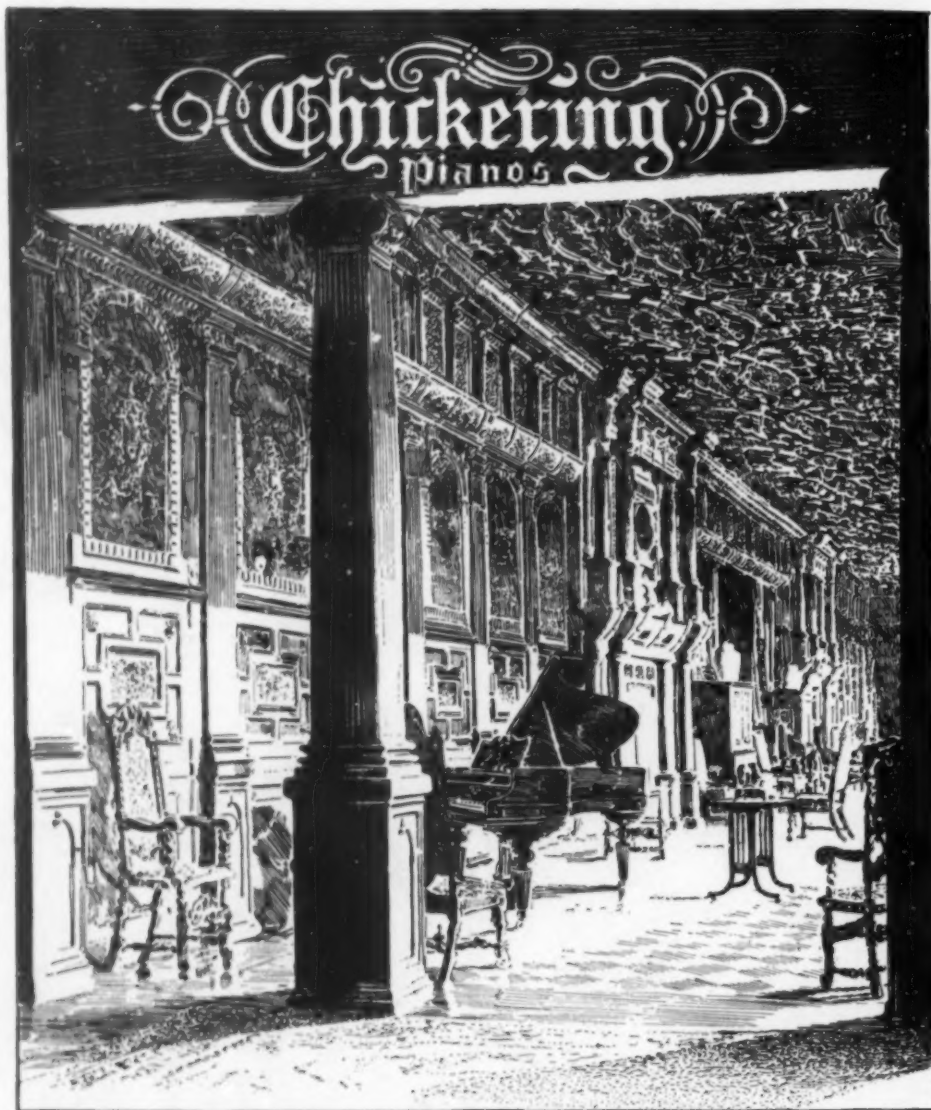
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TERRACE AND STEPS IN THE GARDENS OF THE LATE EMPRESS OF AUSTRIA

House and Garden

VOL. IX

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No. 5

THE ARTS AND CRAFTS EXHIBITION LONDON, 1906

BY MABEL COX

THE Arts and Crafts Exhibition Society opened its eighth exhibition on January the 15th at the Grafton Galleries under the distinguished Presidency of Mr. Walter Crane. At the private view, which was crowded and where most of the promoters and upholders of the movement were seen, two things, plainly, were universally felt. One was the strangeness of the new quarters, for owing to its long association with the New Gallery, everybody has come to think of it as the home of the "Arts and Crafts;" the other was the gap that is still felt to

exist, and it is safe to say always will be felt to exist by all who shared the joys and sorrows of the society in its early days—the gap caused by the loss of the beloved personality of its former leader—William Morris.

In reviewing the work of this Society (now in its eighteenth year) which has been one of the important powers in the development of that wave of feeling for, that reaction towards, handicraft and a general simplification of conditions of life by which we hope to signify a renaissance of art, it is necessary



MEMORIAL TABLET TO COMMEMORATE A VISIT FROM HERBERT SPENCER. BY JOHN WILLIAMS AND B. J. COLSON

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GROUP OF POTTERY BY THE PILKINGTON TILE & POTTERY CO.

The one with relief figures, "The Four Seasons," by Mr. Walter Crane

to beware of sentimentality, and to try and find practical solutions of national problems. It is sometimes suggested that if we could go back to what now appear the ideal conditions of centuries ago, before the invention of machinery, we should be healthier and happier. It is undeniable that machinery is responsible for the awful

luxuries and works of art, till our senses are dulled and national taste is vitiated almost beyond recovery. The problem is how to revive our sense of honest handicraft, and pick up the threads of tradition for the forming of a natural taste, not that of the cultivated classes only, but a democratic and universal one. It is doubtful if we shall advance

condition of industrial art, which has not yet probably reached its culmination; but it is the abuse of its power in the race for wealth that has brought us to such a pass. The power of machinery enables us to indulge in the use of improper materials, in a redundancy of ornament and above all, in the reproduction in cheap form of



CHINA CABINET IN ENGLISH OAK. WROUGHT IRON CANDLESTICKS AND STANDARD, BY MR. ERNEST W. GIMSON



WALNUT SIDEBOARD, DESIGNED BY MISS JULIA HILLIAM, WROUGHT IRON CANDLESTICKS BY "THE ARTIFICERS' GUILD"

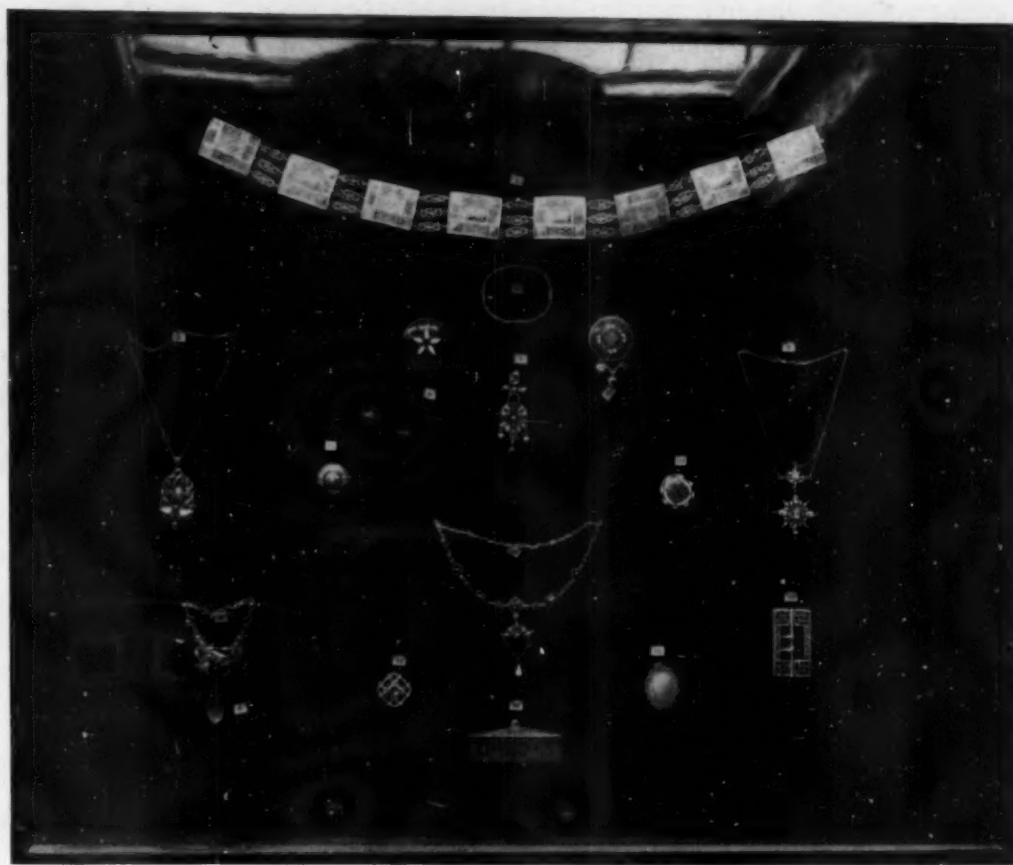
The Arts and Crafts Exhibition, London, 1906

the cause of a national art by laying continual stress on this war of machinery and handicraft; we should try instead to relegate to each its own functions instead of assuming all dealings with machinery to be sordid and undignified, and all practice of handicraft to be enlightened and romantic.

What is romance? Grimm's story of the poor soldier who became the possessor of a purse that never lacked a gold piece is romantic, but suppose he had had instead a machine that never failed to produce something that could be sold for a gold piece, is his situation no longer romantic? The use of machinery in itself is not pitiful

.. "And all unseen
Romance brought up the 9.15."

The present position of sweated workmen tied to endless machinery is, in all conscience, pitiful enough; but so also are the stories of the sweated hand-loom weavers, crippled by doubling over the breast beam from early to late in dark hovels. Imagine among such the possessor of the first power loom, doing his work in a fraction of the same time and setting out a free man to hoe his peas, to work a silver girdle for his sweetheart or to carve a cradle for his baby! Where is the romance here? Is there nothing pitiful in the condition of many a handicraftsman kept going by the modern subsidized movements? Such workmen are often ignorant fisherfolk tinkering ignorantly at a piece of sheet copper under the ignorant direction of the vicar's daughter; the design, the tools, the materials thrust into his hand wherewith to produce something for which he has neither comprehension nor sympathy, nor even such a knowledge of its value as enables him to prevent its being sold sometimes hugely over and sometimes equally under a decent price. Of the existence of this sort of thing ample proof is found at various exhibitions of subsidized industries all over the country. It keeps the "art" worker out of the public house and the vicar's daughter out of other mischief, and if he gets a half-crown, and she some *éclat*, for the work of their winter's evenings, that is all to the good; but they do not form a convincing picture of the dignity and en-



CASE OF JEWELRY, BY THE SIR JOHN CASS INSTITUTE, WITH VERY GOOD CLOISONNÉ ENAMEL

lightenment accruing to the practice of handicraft.

A further and very difficult question for the sentimentalist of labor is where the use of machinery is to begin or end even in artistic handicraft. Would he, for instance, recommend the sawing by hand of the planks of the furniture he is making?

We are still in a coil, artistic and industrial, but the sociological question is far too big for sentimental solution, such as throwing all machinery into the sea, starting fresh as free and independent craftsmen; we have got to evolve from it, and it is the hope of evolving with the possession of a living democratic, traditional art, that makes the success or failure of such movements as the Arts and Crafts Society of vital importance to us. That such an art will be manifested in the practice of handicraft is certain. Since nature never makes two men exactly alike, no two men will ever make two articles exactly alike, and here is our justification for the appreciation of handicraft, and for the everlasting interest it arouses. No craftsman can fail to express his individuality in his work, and here is the dignity he gains.

Mr. H. G. Wells, one of the few social prophets who do not ignore the need of expression of the artistic temperament in their Utopias, sets forth in his "Anticipations" that the art of a nation is shown not by the condition of its "Fine Arts" but by the way in which it makes things of everyday use. The

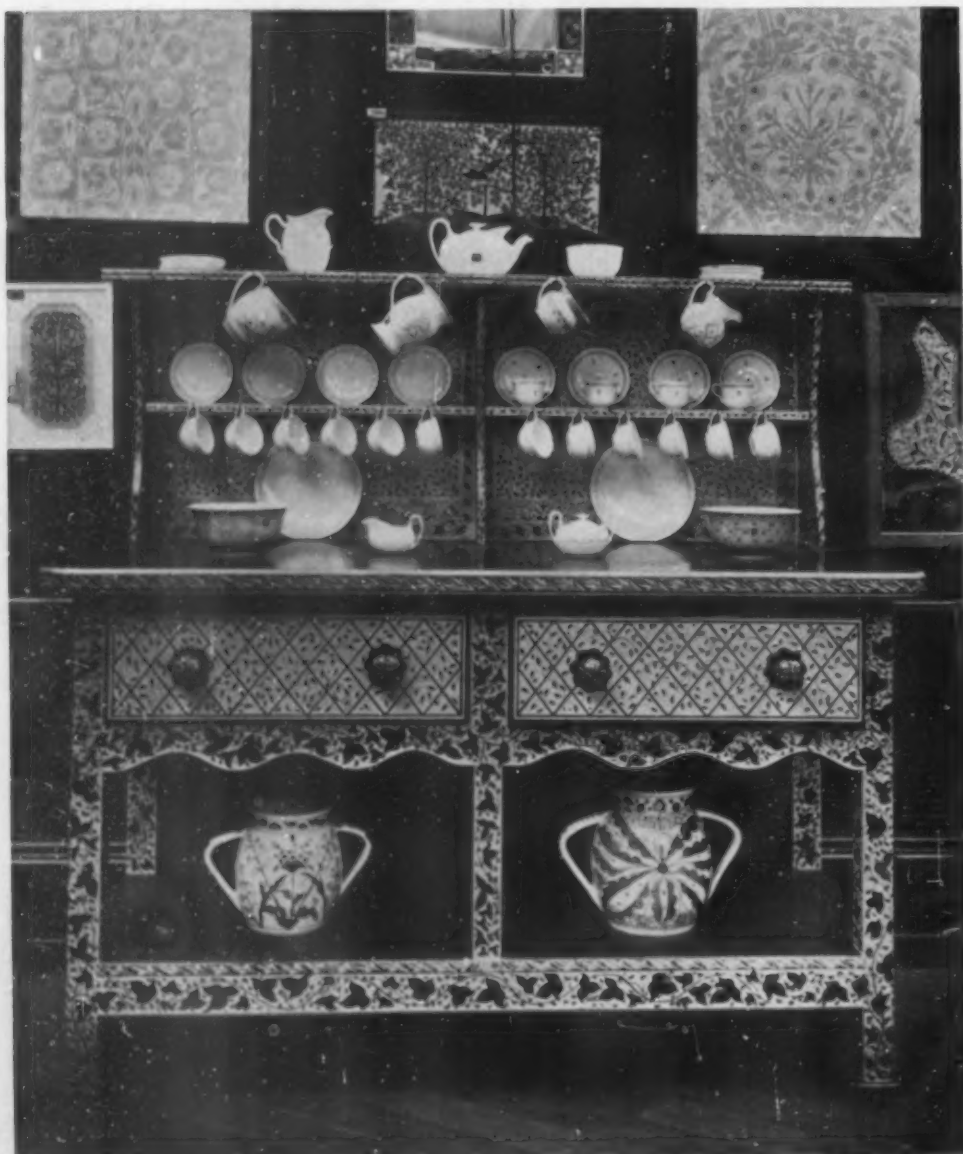
House and Garden

Japanese are a striking example of the truth of this idea, but so far are we from a similar state, that the first quality that attracts notice in the Japanese craftsman is his facility for decoration. A kimono, for instance, may bear a trail of exquisite needlework, but that is not nearly so attractive artistically as the marvellous skill with which its lining is sewn into it, in such a manner that while holding perfectly firm, it can be ripped out in a few moments for washing; and it is doubtful whether the delicate cleanliness which dictates this ingenuity is not a greater proof of innate artistic feeling than the unerring skill shown in the decoration. This feeling, which is manifested in hundreds of ways, is democratic; it is possessed by the meanest workers and pervades their humblest productions.

Unfortunately such feeling is becoming less and less apparent among Western workmen, peasant art and handicraft is almost dead, and there is no demo-

cratic art. The taste of the working classes is just as evil as that of the middle classes, which is putting the case stronger. It is very rare to find a man who cares to practice even a craft by which he earns his living, for the benefit of his own home. Nor are there any signs that the Arts and Crafts Society has succeeded in arresting this array of democratic art. The present exhibition is almost entirely dilettante in character; it is an exhibition of beautiful, luxurious and costly things, for luxurious and wealthy people. There is practically nothing made for, or by, the working classes. There is work carried out by working men in plenty, all kinds of it come, for instance, from the Guild of Handicrafts, but the god behind the machine is Mr. Charles R. Ashbee, and it is safe to say that without the years he has devoted to helping, teaching and inspiring working men, few of those exhibits would be there. The influence, valuable though it be, comes from above not below.

Another failure, or another aspect of the same failure, is the tendency to over-decoration, a sure sign of the prevalence of dilettantism. One has an uncomfortable feeling that people have been learning to leave metal, or wood, or leather and have then had to cast about for something to put it on. That they have, in short, got hold of the wrong end of the stick, and that it is not so much in the making of things as in their decoration that handicraft has found its outlet. However, when cavilling at generalities is done, it is pleasant to find that there is so much to praise that it is impossible to give even the smallest mite of honor everywhere that honor is due. To begin with, the new quarters of the Society have proved a most successful device; and the immense difficulties of hanging and placing have been overcome with great success, both as regards individual exhibits and the general aspect of the rooms. The large gallery is decorated all round by the frieze painted by Mr. Walter Crane for the British Section at the St. Louis Exhibition and lent for its present purpose.



DRESSER DESIGNED BY MR. W. R. LETHABY, PAINTED BY MR. ALFRED H. POWELL.
THE POTTERY, BY MR. LETHABY, EXECUTED BY JOSIAH WEDGWOOD & SONS

The Arts and Crafts Exhibition, London, 1906

There is much less extreme work this time than in former exhibitions especially among furniture. With the exception of one or two chairs there is nothing that is even a little too clever. There is one form of decoration on one or two of the best pieces, an interrupted chamfering which gives an unpleasant suggestion of "rustic work," but on the whole the furniture is characterized by a deliberate reticence which is really artistic, and does not emanate from lack of idea, or lack of expenditure of workmanship. The latter is there, but it is not shown in carving and inlay but in exquisite paneling and moulding. Mr. Penty is responsible for some very simple and beautiful pieces. Mr. A. Romney Green shows excellent workmanship but tends a little toward over-elaboration in design. Heal & Son have several especially attractive pieces of plain well-made furniture, after the best English traditions of the 18th century.

Among metal work, forged iron is noteworthy for its conspicuous beauty. Mr. Ernest W. Gimson and the Artificers' Guild, some of whose work we are enabled to illustrate, need no further praise. Two copper

vases designed by Miss Anne G. Stubbs and made by Jesson Birkett & Co., entirely without decoration, are very good indeed.

The jewelry is most disappointing, with the exception of that sent by various technical schools. It is generally over-elaborate in detail, with a mixture of color that together give a meretricious effect; some again is strained in idea

and inappropriate, in fact it is a section in which rank bad taste prevails. There is one case of simple and appropriate work which, though not highly distinguished, has considerable charm, by the Misses M. Wilcock and L. D. Carro. There is a silver buckle with labradorite and serpentine by Miss Margaret J. Awdry that is also among the pieces with real beauty. There is a great deal of enamel which runs largely to pictorial lines, landscapes with tree trunks over a setting sun are a prevalent form of the disease, which has broken out badly on small boxes. Mrs. Geraldine Carr has some simpler enamels mounted in silver for saltcellars which are very charming. One of the most satisfactory pieces of metal work is a cast iron fire-grate by Longden & Co., designed by Mr. C. F. A. Voysey. Although Mr. Voysey has before now proved what wonders may be attained by suitable designs in iron-casting, this exhibit strikes one as quite unexpectedly beautiful. The lines are severe and the only ornament consists of two little squares of relief casting. This is, unfortunately, the only exhibit bearing Mr. Voysey's name.

A particularly attractive class of metal work is that for table use; hand-wrought silver utensils and



MAHOGANY CHAIR AND OAK ARM CHAIR BY THE GUILD OF HANDICRAFT
DESIGNED BY MR. CHARLES R. ASHBEE



CARD CASE WORKED IN SILVER
THREAD ("Silver Rose") BY
MISS MAY MORRIS

House and Garden



TAPESTRY PANEL DESIGNED BY MISS SYMONDS AND MRS. H. ACLAND HOOD, WORKED BY MRS. H. ACLAND HOOD

dishes of all descriptions, in simple forms and with just enough of finish to leave the fine handworking apparent, come, principally, from the Guild of Handicraft, and also from Mr. J. Paul Cooper and Mr. E. E. Harris.

The class of woven fabrics is very small. Mr. Edmund Hunter shows one or two elaborate design-weavings of beautiful workmanship but rather unattractive color. The most charming piece of weaving in the exhibition is done by Miss Charlotte Brown; it is a pair of linen curtains with only a slight heddle pattern in the lower part; the coloring is quite exquisite, a greyish purple which shades imperceptibly into greenish grey, the handwork being conspicuous in this dainty manipulation of color.

Needlework, naturally, forms a very large class but there are few ambitious pieces. Miss Una Taylor has nothing of equal importance with her tapestry after the Burne-Jones design of a few years ago; her principal exhibit is a pictorial panel entitled *Joli Cœur de Rose* designed by Mr. W. Graham Robertson; it is very beautiful work and the design

has great charm, but it is rather wanting in repose. The crimson-clad figure stands out rather startlingly from a nearly white background. Miss Phoebe McLeish has a dress yoke of delicate, careful and appropriate work which deserves great praise and Miss Peard has a very good sampler of elaborate gold and silver work. There are one or two needlework pictures, the best a small snowscape by Miss Kate Button, while one from a beautiful design by Mr. Walter Crane, by Miss Violet Turner, has suffered a little from the colors employed and will doubtless improve with time.

One of the finest classes of the whole exhibition is that of book decoration and handwriting. There is excellent work in the best traditions of earlier centuries from Mr. Allan F. Vigers, Miss Florence Kingsford, Miss Jessie Bayes and others, while Mr. Graily Hewitt is responsible for some exquisite penmanship and gilding.

There are also great beauties in hand binding from the Doves Bindery, and some which have been done

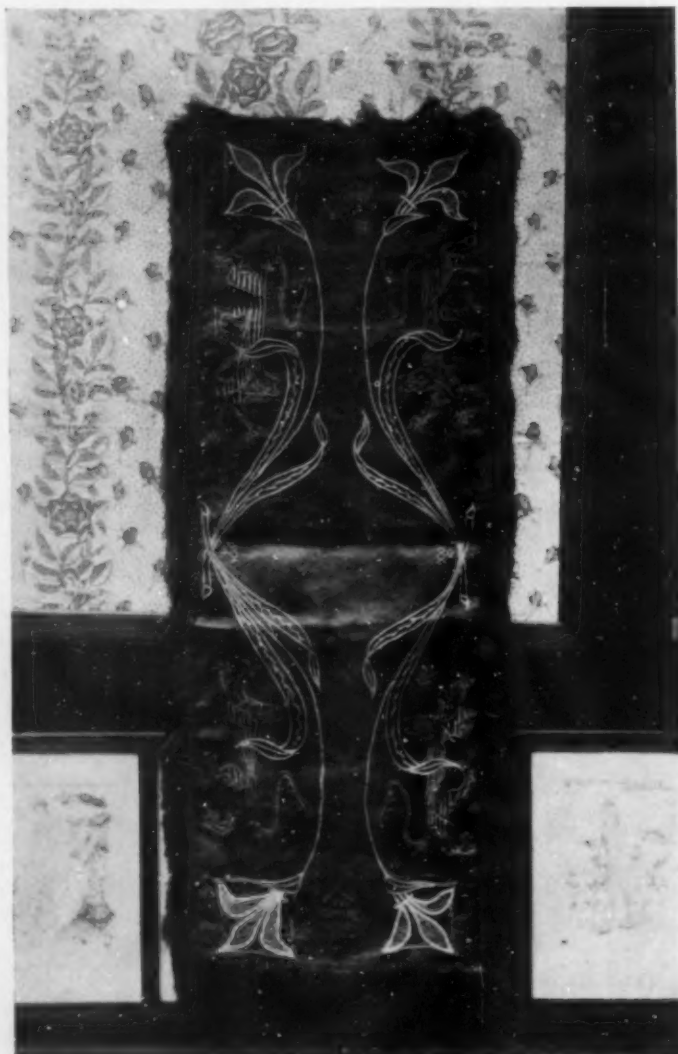


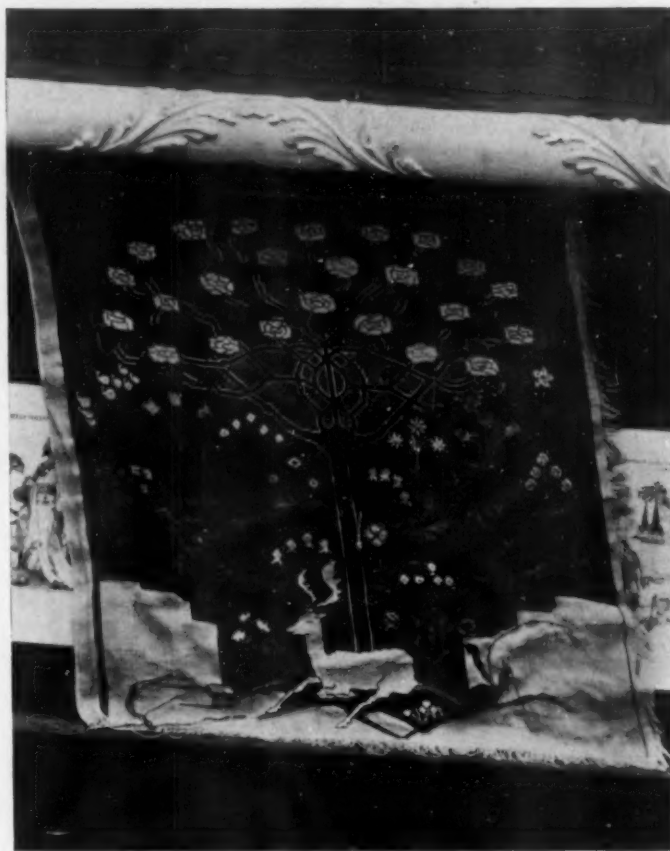
TABLE CENTRE DESIGNED BY MR. WALTER CRANE
WORKED BY MRS. WALTER CRANE

The Arts and Crafts Exhibition, London, 1906

under the inspiration of Mr. Douglas Cockerell of a peculiarly restrained beauty.

It is absolutely impossible to make anything like a critical survey of work in an exhibition of this magnitude, or even to do anything like justice to the exhibits in classes. The utmost one can do is to record impressions of things that have appealed personally. A word or two must be added, however, about the very high standard of work sent in by the technical schools, as having an important bearing on the sociological question dealt with above. The Arts and Crafts Society recognize this importance, as they have made a special feature of work by students. The Cass Institute, many of whose students are genuine artisans, or such in embryo, send excellent metal work, and their case of jewelry is almost the best in the exhibition. This is only to be expected from Mr. Rathbone's influence, he being one of the well-known metal-workers who has always been content to have his excellent workmanship speak for itself and whose name has always been associated with practical and useful things; he and Mr. Harold Stabler are to be congratulated on the success of their teaching efforts. The Birmingham Municipal School of Art has for years been known as a fountain head of first class work, and the tradition is maintained. The jewelry again, silver and other metal work, is so good that it is hopeless to particularize, and some of the needlework executed under the tuition of Miss Mary Newill is equally fine. Other institutions showing excellent results are the Shoreditch Technical Institute and the Central School of Arts and Crafts, both under the London County Council.

This work strikes a most hopeful note, and gives



NEEDLEWORK PANEL (Unfinished) BY MRS. WALTER CAVE

a reason for believing that in spite of the stress of labor wars, the abuse of machinery and other evils from which we suffer, we may emerge with a hold on our traditions of handicraft and a national art.



COACH—STYLE LOUIS XV.



THE SCHLESINGER PLACE—VALLEY TO THE NORTH OF THE HOUSE—VIEW LOOKING EAST

FREDERICK LAW OLMSTED AND HIS WORK

III. THE SCHLESINGER PLACE, BROOKLINE, MASS.

BY JOHN NOLEN

Photographs by Thomas W. Sears

FREDERICK LAW OLMSTED'S work as landscape architect consisted so largely of the creation of parks and the improvement of public property, that it is difficult to find private estates with which he had personal connection. The Schlesinger Place in Brookline, Massachusetts is, however, one of his own designs and a good example of his method of dealing with home grounds. It comprises an irregular tract of land, about twenty-eight acres in extent. The topography of the property is rough and rolling and in the opinion of Mr. Olmsted was not very favorable as the basis for a large and handsome country residence. There was no obvious and inevitable good arrangement. Every plan had serious objections. But it is largely because of its difficul-

ties that the design so well repays study. It shows how an artist accepts conditions and limitations and works to good effect in spite of them; indeed in this case how he definitely plans to make the limitations enhance and aid the ends sought.

The sketch plan of the property herewith shown indicates the character of the grounds. It will be observed that there is considerable variation in grade, the elevations ranging from 70 feet to 105 feet. But compared with the surrounding properties the whole estate is low. It commands no distant view, no views beyond its own borders. In fact the topography is such that there are few points where views of extent can be had within the property itself. The rocky ledge to the southwest shuts off both the view



THE GREAT HOUSE—THE DOMINANT FEATURE OF THE DESIGN

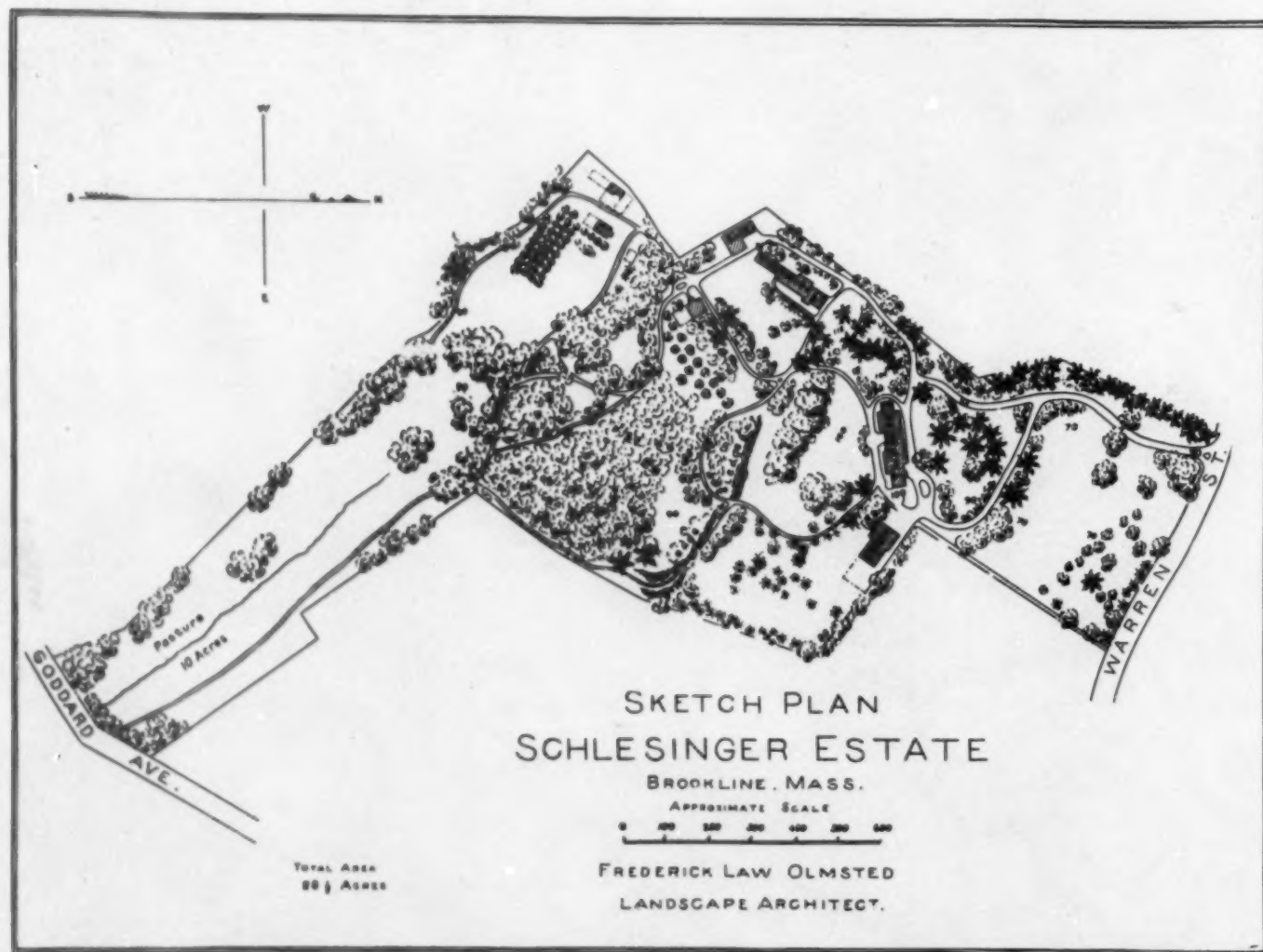
House and Garden

and the wind from that most desirable direction. Furthermore it is to be noted that there was no pond nor stream to add interest to the scene,—except the little rivulet that runs through the pasture lot. Nor was there any large lawn area to give breadth and unity to the compositions of which the house would be the natural centre. But there must have been, even twenty-five years ago when the improvements were begun, large and attractive trees, specimen oaks and elms as well as impressive woodland in desirable locations.

Along with these topographical conditions for the landscape architect to reckon with, the house itself might be included, for although it was not actually built or even located, its size and character were definitely decided upon and its plan and elevations drawn. It was to be a very large brick mansion with brown stone trimmings, combining features of English and French domestic architecture. This building was to be 200 feet in length, rather low in effect with a great square tower near its centre rising to a height of five storeys. A house of large dimensions was required by the owner, and because of this

fact and of the comparatively limited area of the grounds around the house, and the peculiarly prominent position that the residence nearly always has in a private place, this great house became the dominant feature of the design, the one that controlled, or at least affected, almost everything else.

These were the most important of the pre-existing conditions for the landscape architect to keep in mind. The main or controlling purposes of Mr. Olmsted's design may now be outlined. Although they are nowhere in the correspondence definitely set forth, one after another, they may here be conveniently considered under six heads: (1) The orientation of the house so as to receive the best possible aspect and prospect. (2) The establishment of suitable living grounds for the family in connection with the house. (3) The proper location of an entrance road upon good grades. (4) The disposition of the service, stables and greenhouses so that they would be separate, yet convenient. (5) The suitable location of other parts of the design,—pasture, woodland, and orchards. (6) The execution of the design in such a manner as to secure in the completed



THE PLAN

Frederick Law Olmsted and His Work



"THE PROPERTY HAD A POETIC CHARACTER OF ITS OWN—AN UNMISTAKABLE CHARM"

result a positive beauty and a dominating sense of unity. These purposes are important in the development of any private place, and yet one or more of them is often lost sight of. Moreover each "Place" has individuality,—some circumstance of locality, topography or ownership that requires special consideration and treatment. In one of the best garden books published, "Garden Craft Old and New," the genial and well poised author, John D. Sedding, expresses this idea in admirable words: "There is an individual character to every plot of land as to every human face in a crowd, and that man is not wise who, to suit preferences for any given style of gardening, or with a view of copying a design from another place, will ignore the characteristics of the site at his disposal."

Mr. Olmsted's estimate of the site and the keynote of the treatment that he recommended are well expressed in the following quotations from his correspondence. His language is straightforward and unmistakable: "Your property," he wrote Mr. Schlesinger, "does not contain a site suitable for such a house as you contemplate unless you are willing to put up with some conditions which many people would regard as eccentric, but which I should

hope would carry their own justification and therefore simply secure an individuality of character appropriate to the house." A little later he wrote again in the same strain: "The site is not big enough nor fine enough for so large and fine a house and every possible modification is required in the character of the ground to make it and the house appear as a part of one design, each well-fitting to the other." From the beginning Mr. Olmsted believed—and his belief appears justified—that an entirely satisfactory result was out of the question. The problem was to get as good a result as possible.

What, then, was Mr. Olmsted's recommendation as to the site for the house? He states it clearly. "It is desirable that a house such as you have in view should be so placed as to look southwardly upon a lawn which has a slight continuous descent from it, and that there should be no ground higher than that upon which the house stands for a considerable distance in the same direction. There is but one position where this requirement can be met. You will find it near the kitchen end of lawn, west of the Amory house.¹ From this point and in this direction the ground falls away continuously to Goddard Avenue—therefore this establishes the best position on the

¹The Amory house stood upon the property when Mr. Schlesinger bought it.

House and Garden

Amory Place for a summer residence." Mr. Olmsted's first choice for the house site is thus in no way left uncertain. Mr. Schlesinger had other intentions with regard to the location of the house, and Mr. Olmsted's firm insistence upon the advantages of the proposed site was the most important point in this case in the whole service of his client. The house was placed where he recommended, thus securing an attractive prospect both to the north and south, and a pleasant aspect for it from the same directions.

As a connection between the house itself and the living grounds southeast of it, Mr. Olmsted recommended a broad terrace walk, 14 feet wide, constructed in harmony with the house and architecturally defined. If such a terrace was not constructed he urged that the lawn come unbroken to the walls of the house. Unfortunately in this particular, neither of his suggestions was followed. Instead a narrow walk was made. It merely disturbs and breaks, as he said it would, the intimate relation that is essential between house and grounds. Has the Schlesinger house an appropriate garden setting to the south? Does not a house so large and stately as



"THE ENTRANCE DRIVE IS BEAUTIFUL AND SERVICEABLE"

this one is require something more of formality to make the transition to "nature" more gradual? Such questions should not be answered off hand, for to be answered wisely they require a careful examination of the particular property under consideration and a sympathetic knowledge of both formal and landscape gardening. A comparative study of a formal design by Le Notre, like Vaux-le-Vicomte or the formal setting for an estate like "Biltmore," with the best modern English and American naturalistic design, would be illuminating. There is ample room and opportunity for both styles but the question of the appropriate use of either will always be one requiring sound judgment based upon knowledge and experience.

The location of the entrance road and its treatment was almost as difficult to decide upon as the fixing of the house site. The importance of the approach, both in itself and in its effect upon the general design, was insisted upon by Mr. Olmsted again and again. It is perfectly clear from his letters that he looked upon it as the most permanent and important of controllable features. Three plans were con-



GENERAL VIEW OF THE MAIN LAWN SOUTH OF THE HOUSE

Frederick Law Olmsted and His Work

sidered. One called for an entrance from Goddard Avenue, setting off for sale the site of the old Amory house and its entrance from Warren Street. This proposal was abandoned. Another proposed to keep the road as it was, or at least to change it as little as possible. The objections to this were that it divided the ground north of the house into two parts (a serious fault) and in order to connect with the new house it required the cutting away of part of the bank of foliage. Its sole advantage was economy; its justification—holding to an approach that people were accustomed to. The final suggestion was to build a new road to the west of the valley and make a pond in the valley of about half an acre in extent with a depth of water in the middle of about 4 feet.

The excavated material was to be used to lay out the road. The steepest grade of this road would be one in fourteen and this only for a short distance. So far as the location of the road was concerned, the third plan was followed. But the pond was never made. This road proved



"I WOULD MAKE AN ENTRANCE FAR DIFFERENT FROM WHAT IS COMMONLY LOOKED FOR"

entirely satisfactory, and is to-day beautiful and serviceable, forming a fitting approach to the house.

The service road branches off to the left about 300 feet from the entrance as shown on the plan and goes directly to the kitchens and stables. The objections to this arrangement are: it involves the common use of part of the main approach for both family and service; it breaks through the centre of the ground to the north of the house and it is not easily screened without shutting out from the house the view of this pleasant valley. But the valley between Warren Street and the house is at all other points so deep that the construction of a separate service road across it would scarcely have been justified.

The kitchens and stables are very conveniently located at the eastern end of the house, and yet they are so well designed and the ground about them is so successfully planted that they add rather than detract from the beauty of the house scene. The good use of conifers, as shown in the photograph, is worthy of imitation. The greenhouses,



"THE KITCHENS AND STABLES TO THE RIGHT, SKILFULLY SCREENED BY CONIFERS"

House and Garden



"THE PASTURE, ALSO MAKING ITS CONTRIBUTION TO BEAUTY"

the orchards and the pasture were likewise appropriately located. One of Mr. Olmsted's happiest faculties, in both public and private work, was the skilful division of ground for its various purposes. The illustration of the "pasture" shows how much beauty can be incidentally obtained from an altogether utilitarian use of parts of an out-of-town home.

But in conclusion may I point out that the satisfying character of the Schlesinger Place is not due to the convenient and wise treatment of the separate parts of the design, but to a large general ideal which affected every detail, an ideal that never lost sight of appropriateness, of beauty nor of unity. What was the general ideal kept so constantly in view? Early in the correspondence Mr. Olmsted pointed out that this property had a poetic character of its own, an unmistakable charm. This character, it is true, was more or less mangled by roads and buildings; nevertheless it was there. Two courses were open in the construction of the new estate: To unveil and develop the present character of the site to a much higher degree, or to destroy it completely and substitute for it an ideal of an en-

tirely different nature. Mr. Olmsted favored the first course, not from sentiment, but because he believed that in the long run it would contribute more to convenience, health and beauty. His advice was accepted and so we have in the Schlesinger Place a design that is distinctive and consistent. It is a law unto itself. The topography is accepted frankly and its suggestions followed. There is no attempt to smooth it out or change its native character. Mr. Olmsted's general point of view cannot be better illustrated than in his advice as to the entrance: "I would make an entrance far different from what is commonly looked for.....

.....I would have it appear that no more had been done than was necessary to obtain access in the easiest way from the public road across an interposing valley to a fine situation upon a neighboring height. There should not be a suspicion of effort about it for anything but convenience." And so each apparent difficulty proved, in this master designer's hands, to be an advantage. Insipid compromises were avoided. Moreover this frank—some might even say crude—treatment of the public side suggested that the key to the whole arrangement was to be looked for on the other side of the house, on the side reserved for the family and its guests. Finally, one short quotation from Mr. Olmsted's letter to Mr. Schlesinger illustrates his estimate of the value of design out-of-doors and shows his constant adherence to a high ideal: "The dishing and garnishing (if you take so very poor a view of the outside part of your proposed home) of such a house should be more than good. It should be perfectly excellent of its kind." Because of such points of view and such standards of work, Mr. Olmsted succeeded in making the Schlesinger Place, like all his other designs, a work of art.

POTTERY FLOWER VASES

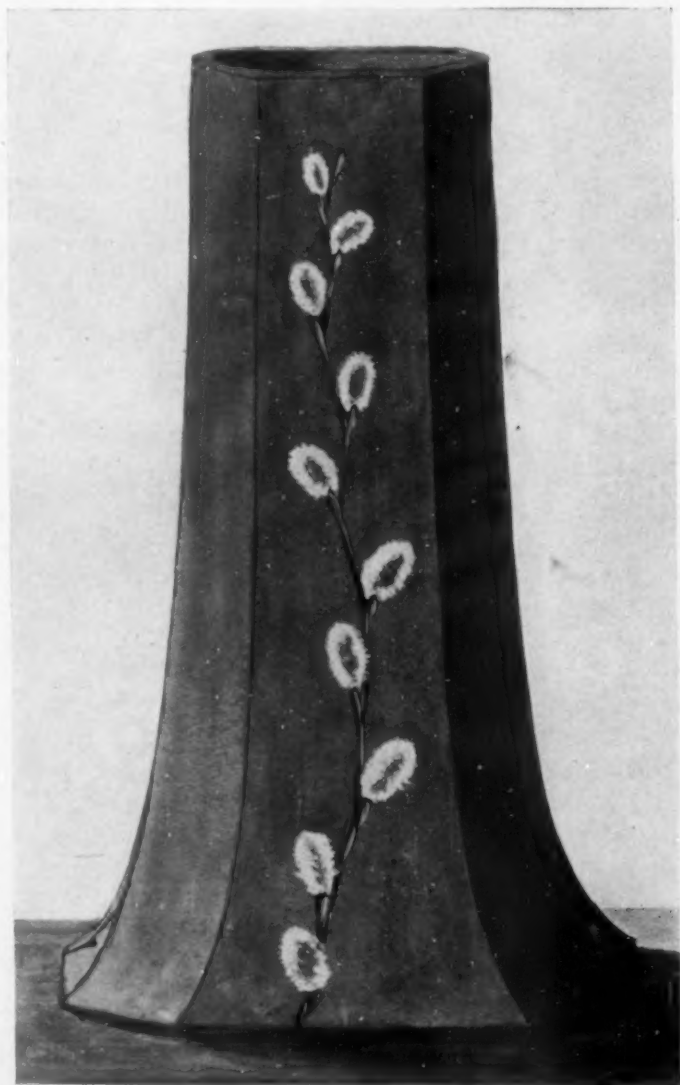
By W. P. JERVIS

Drawings by A. L. Cusick

WHAT lover of flowers, with the added grace of artistic taste, (and one seems to generate the other) but has wandered from store to store in search of a suitable receptacle or holder for some especial flower? Of vases there are literally thousands, garnished from every quarter of the globe. Many of these, as vases, are exquisite, but the thought would obtrude that the craftsman in designing them had no thought beyond a certain beauty of line, or an extravagance in shape which should either attract by its oddity, or perhaps impress you with an air of newness. It was in short a mere ornament and no thought of the combination of the useful and the beautiful had entered into its creation. If by chance you found something nearly approaching in form your ideal, as likely as not it had been rendered utterly useless, because the decorator had regarded it only as so much space on which to exercise his skill and

had not considered its adaptability to some special purpose. More likely than not he had regarded it as a surface to paint on and not to decorate, a fatal difference.

It is a trite saying that if the creator of an object has in mind a definite purpose and understands the necessary requirements the result is bound to be artistic. It is for this reason principally that we find so much to admire in much of the old time pottery, why it impresses us in spite of apparent crudities. We are beginning too to recognise the fact that it is all wrong to crowd our dining tables with a profusion of flowers, arranged in such a manner that it is almost impossible to see much more than half the number of our fellow guests. But happily the epergne is now as extinct as the dodo and surely nothing in its life



PUSSY WILLOW VASE



DAFFODIL VASE



NASTURTIUM BOWL

These mat glazes are slowly but surely making headway and we may be quite sure that what the artist and the art lover of to-day is searching for will be the fashion to-morrow. But as to-morrow has not yet arrived we have had to meet to-day's demands and give decoration and are thankful meanwhile that to-day is demanding much less in this way than did yesterday. So decorations are shown in the accompanying illustrations, for no idea of

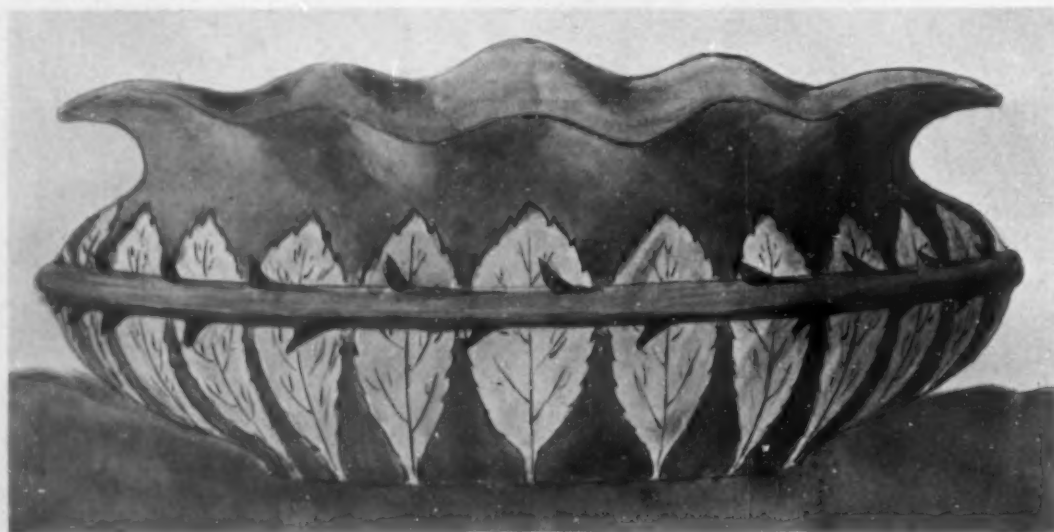
became it so well as the leaving of it. And with its extinction came a demand for low bowls or vessels to hold cut flowers, but as far as we know no definite attempt has been made to meet this demand, so articles of utility intended and designed for entirely different purposes, have been pressed into service with more or less satisfactory results. But it is not specially with the decoration of the dining-table that we are concerned, for in this each one must be a law to himself, but rather with the boudoir, the morning room; a nook in the hall, or a corner of the den, such places in fact where the most time is spent and where a few flowers by their cheery presence, will be an inspiration to higher thoughts and deeds; glorify perchance our daily task, or bring back with fond insistence some golden day, or some loved face, out of a half forgotten past.

The daily task in this case being to produce vases in pottery, an effort has been made to adapt them to some specific use, possibly with no very great amount of success, but the effort may be at least suggestive and later lead to more definite results.

The cool depths of mat glazes are unquestionably the best adapted for flower vases and have an unobtrusiveness and color values impossible to obtain in bright glazes. Of these the preferable colors are the greens, especially in shade combinations, the varying depths being full of subtle suggestion and decidedly more attractive than the rather sombre self colored pieces.

the quality of mat glazes can be given in black and white or be secured by photography. It is a quality recognisable at sight and should give you a desire to touch it.

The first breath of spring brings with it one of the most decorative natural objects we possess, the pussy willow. Lovely as it is it hardly forms a suitable table decoration, but almost anywhere else it will be a thing of beauty for many weeks. Its long stems and weight seems to call for a tall vase, not too wide at the top, but with a very firm base, so that the danger of overbalancing might be reduced to a minimum. Later this vase could be utilized for pæonies, goldenrod, dahlias or almost any flower with long stems and heavy blooms. For daffodils it is of course too high and though these charming flowers also demand a firm base, a less pretentious vase is more desirable. This we have enriched with a quotation from "The Winter's Tale." "Daffodils that come before the swallow dares" and par parenthesis no one but Shakespeare could have written that. Almost as



ROSE BOWL



JARDINIÈRE—THREE HANDLES



NASTURTIUM VASE



CARNATION VASE



LILY-OF-THE-VALLEY VASE



PERSIAN ROSE BOWL

lovely as the daffodil is the nasturtium, a flower capable of infinite variety of arrangement but perhaps best adapted to a low bowl with a turnover rim so that the flowers can be well massed together and their delicate stems protected, but it would be quite admissible and in some cases much more artistic to use only a few blooms in a low squat bottle with a somewhat narrow neck. Just sufficient blooms and foliage to comfortably fill the neck without pressure. The bowl can also be used for many varieties of woodland and cultivated flowers.



VIOLET HOLDER

The queen of flowers, the rose, should, obviously, have regal treatment with separate holders for the different varieties. For the table a low bowl has the edges turned outwards, so as to form a support to the stem, which also finds further support in the interior of the bowl, these stems in turn helping to support the centre flowers. A second bowl for roses is also illustrated, and other forms may be had.

For other places a tall vase or jar of generous proportions is preferable, of a color to harmonise with the flowers which, if gathered with a liberal amount of foliage and not overcrowded, fall naturally into the most graceful poses. The old shape rose bowl for some of the less pretentious varieties is not to be despised and these we usually give a Persian decoration.

In England the violet holder is a small shallow tub, with a perforated cover, but it would be of little use here for the longer stemmed and more robust violet of our woods and fields. Either of the two shapes illustrated seem suitable, the latter of the two from its lesser capacity being intended for editors and potters. Either shape can also be used for lily-of-the-valley.

The carnation and flowers of kindred character demand similar receptacles to the rose and the shapes for such could be multiplied indefinitely, but simplicity should be the keynote.

The flowers are surely more important in their beauty than the holder, so the more ornate the latter is the more likelihood is there that some beauty in the flower may be lost—and so ephemeral are they that it behooves us to enjoy them to the utmost whilst we can.

For large bunches of mixed flowers, for the Marguerite, black-eyed Susan, dog rose and a hundred other gems of the country, a jardiniere makes an excellent receptacle, and has the advantage of being applicable for other purposes, and low enough in



ROSE BOWL

The Sapphire

price to be within the reach of all. Indeed the lower priced ones with their self colored glazes are usually better adapted to this purpose than the more ornate and higher priced ones.

No attempt has been made by the writer to suggest anything as to the arrangement of the flowers themselves, a most important consideration, and in those illustrated, allowances must be made for the

fact that flowers were not available to group and make sketches from, so that the artist labored under a serious disadvantage—nor has the subject been anything like exhausted, but it may perhaps set others thinking on the same lines and possibly be the means of evoking suggestions of more value than anything herein contained. The field for invention, in the direction indicated, is practically limitless.



THE SAPPHIRE

THIS beautiful stone was known to the ancients as *amethystus* and *hyacinthus*. Though it bears the same family name as the amethyst, it is more nearly related to the ruby, being formed of pure alumina, which is the oxide of the metal aluminium, besides which it has other properties which mark it as "precious corundum."

There are some splendid specimens of old uncut sapphire in the crown of Lombardy of King Agiluph; also in the Iron Crown of Monza, given to the cathedral by Queen Theodolinda, which I have already had occasion to mention in our wanderings among precious stones. There are other *cabochon* sapphires in the crown of Hungary made for Michael Ducas in 1072. There is a curious specimen of old sapphire in the library of Trinity College, Cambridge, in the form of part of a necklace of small rough sapphires, drilled and strung on gold wire; it corresponds exactly to an ornament mentioned by the poet Naumachius. How it found its way to Cambridge I do not know.

Old engraved sapphires are rare, no doubt because their hardness made them costly to work; but King, in his history of precious stones, mentions one which had been found decorating the pommel of a Turkish dagger; the engraving had been turned inwards, and the back roughly cut by some unskilled Oriental lapidary. The engraving was a magnificent head of Jupiter, with the inscription IYY upon it; it was in

the best Greek style, which proved it to be of great age. It probably had been looted from some Greek palace in the old fighting days, and the stone turned, because all images are anathema to the true believer. At one time the Marlborough Collection boasted an even finer work of art than this Jupiter; it was of the same school and period, and was a Medusa's head in the finest workmanship, the stone itself being the clearest blue.

For centuries sapphires have been the favourite stone for episcopal rings. The ring of the Abbot of Folleville, which is preserved at Braybrooke College, is probably the oldest ecclesiastical jewel extant; it is set with a large uncut or native sapphire, and is of great age.

Epiphanius records the notion prevalent in his time that the sapphire had the power of extinguishing fire; this idea no doubt arose from the extreme, almost icy coldness of the stone, which seems by nature to repel all idea of warmth. Sapphires vary very much in color, passing from deep indigo blue to white.

Sapphires are the best gems for wearing by daylight, as the beauty of their coloring can then be better observed; they are, however, popular at all times, and are one of the favorite gems of King Edward, of England, who frequently gives sapphires for presents. They are a very becoming stone, and do not scratch or chip easily.

F. Lancaster Lucas in *The Art Workers' Quarterly*.

THE HOUSE AND ITS SITE

By WILLIAM C. HAZLETT

THE highest authority we possess upon methods, morals and manners has advised us to count the cost of a tower before beginning to build. This is, of course, but another way of suggesting the advisability of taking heed at the beginning that the result be worth the cost. If this applies to towers, mere marks of power or vantage ground for watchfulness, how much more should it apply to the house, —the man's Home—his castle and his family's fold. And of the parts of the cost of this to-be-well-considered result—this home—the most important in their order, taking it for granted that healthfulness, strength and durability have been provided—is the fitting of the home to its occupant, and the house to its site. The first of these, though pregnant with suggestion, is not the subject of this present inquiry.

Many men of well-ordered domestic habits have had it long in mind to become the owner and possessor of a home, the temple of the family altar and the household gods; the *locus* of his own vine and fig tree. In course of time, with the exercise of such care and prudence in its selection as may be, he has in his possession a site for this home. A stately spread of ground perhaps, wooded, with hill and valley, forest, stream and distant view of sea or mountain. Maybe, a modest portion of the earth with little of intrinsic worth. Whatever it is, it is his own and is to receive, in the ordering of his home, his best care and attention.

This site, large or small, stately or modest—and the small and modest requires greater thought and care than the other—has certain inherent conditions of prospect and aspect; certain individualities of view, a tree here, a boulder there; a stream, a slope; an ugly thing to be hidden, an unpleasant prospect to be masked; whatever you will—which differentiates it from another, making it a thing apart and to be treated by itself. Given this site, with whatever conditions may surround or be a part of it, his house must adapt itself to these, not they to it; must bend itself, with due

consideration for his mode and habit of life, to its environment; must fit him, his site and its conditions, as does his glove, his coat, or anything that by long use has become almost a part and parcel of himself.

And this condition of adaptability, this necessity for so planning that every advantage that nature has given to the site may be made the most of; this bending and shifting of plan so as to obtain the maximum of *goods* and minimum of *ills*, is a function of each site and a condition precedent to the act of building. It is not intended that this fitting of house to site should mean to advocate the forcing of plan, the bizarre and extravagant bending of it merely for the sake of acquiring a fancied condition of individuality or for the sake of being unusual; but rather the sober, thoughtful placing of room, or door, or window where the special need requires, the careful weighing and balancing of demands and the quiet refinement that necessarily goes with a studied and well digested whole. The individuality of plan will follow of itself. The differences that mark the house of X. and Y. come from the careful and systematic following of the programme and of the particular conditions that obtain in the one and not in the other; and they will differ only as the habit of life of their occupants vary and the surrounding conditions are unlike; but one will be the house of X., the other that of Y., and no more alike than X. and Y. themselves.

There is no site so small, none so crooked, no condition so bad, but that by taking care, help may come. Possibly the long and narrow plot, owned and sold by speculative land companies and common in suburban towns, may be thought to be without the pale, but

it may be shown that even with this condition, bad as it is, something of interest and individuality may be made to obtain.

Too much insistence cannot be laid upon this matter of fitness. It should be, and is, of trifling importance whether the convention is

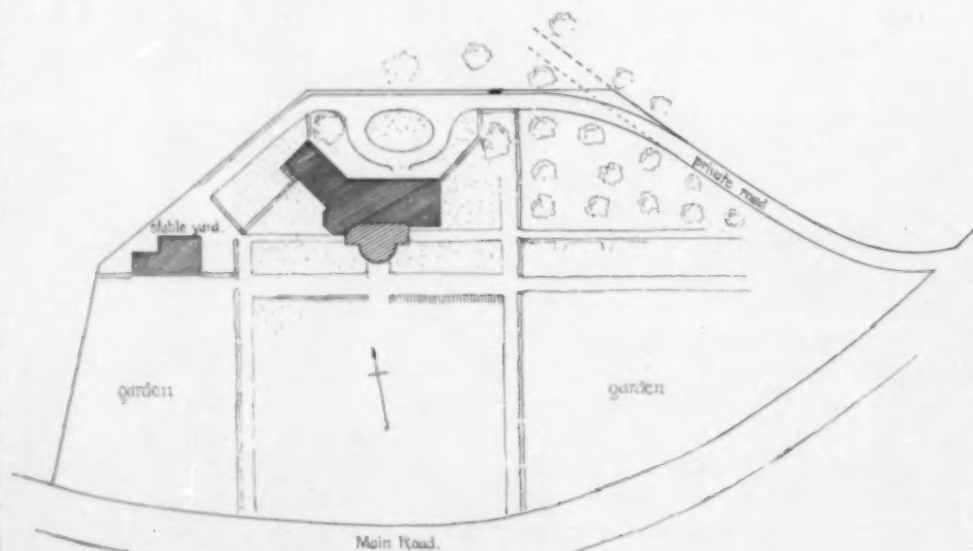


FIGURE 1

The House and Its Site

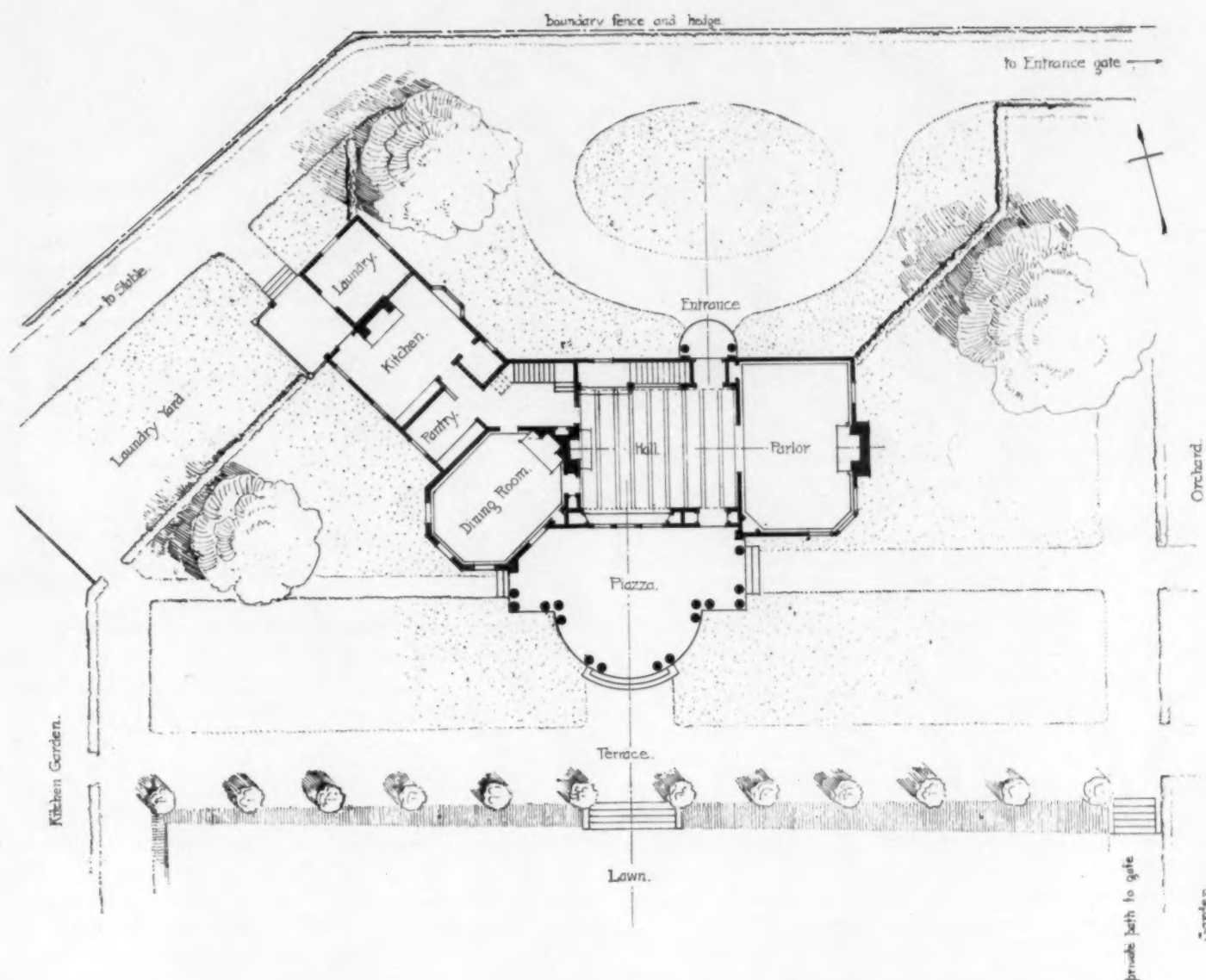


FIGURE 2

followed in the plan; whether this wing is symmetrical with that; whether this garden is balanced upon the axis of that room; whether a hundred things are done that are supposed to be required by some irrelevant condition; but it is of importance that the sun should shine in where his warmth and light is desired; that this or that room should be open to the cool breath of the summer breeze or protected from the cold of winter; that this view should be enjoyed; that the other should be hidden and not obtrude itself.

That is what is to be sought and that can only be gained by a careful, loving study of all the conditions which go to make up the site and its surroundings.

There are probably no people who paid so much attention to the comfort and elegance of their homes, according to their customs and habits, as did the Romans. There are extant, letters of Cicero and the younger Pliny, descriptive of their country homes. Pliny's villa was on the seashore some seventeen

miles from Rome. "It is," says the Consul, "large enough for my convenience, and does not require a costly maintenance. In the first place, there is an entrance hall, simple in character without being mean; thence you enter a circular portico enclosing a small but pleasant court; there you are sheltered from the weather, for the porticoes are protected by transparent screens, and still more effectually by the projection of higher roofs.

"This second court communicates with a third and larger one, into which opens the dining-room jutting out on the sea, so that when the southwest wind blows and the waves have lost their first violence they gently wash the base of the walls. This room is pierced on all sides by doors, and windows as large as the doors, so that, front and sides included, you see three seas, and at the side you enter by, the great court with its portico, the small circular court, then the entrance hall, and beyond that the woods and mountains.

House and Garden

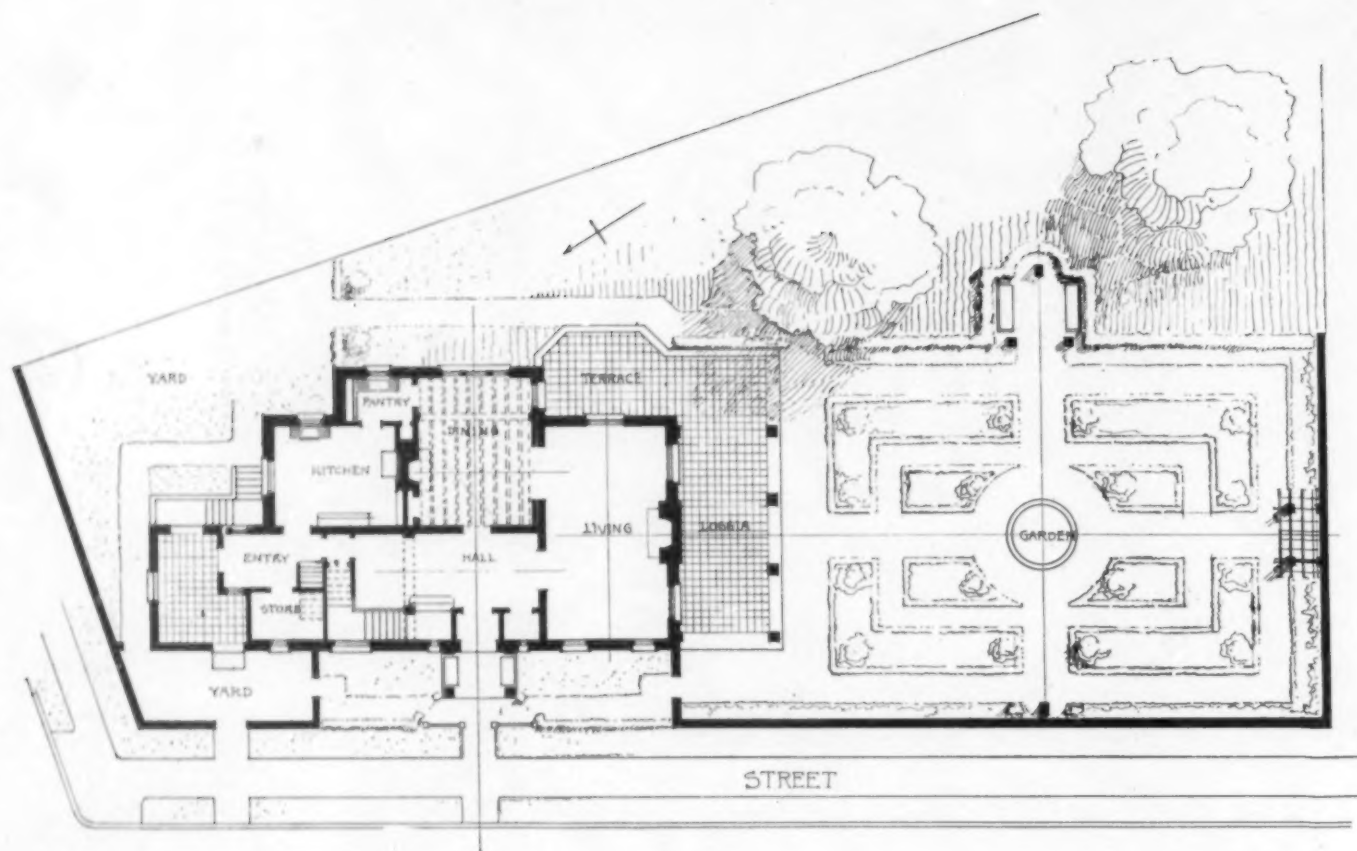


FIGURE 3

"On the left of the dining-room is a large secluded room, then another smaller one open to east and west. On this west side there is a view of the sea, not so close as from the dining-room, but, on the other hand, a more tranquil one. Outside, near the dining-room, the building forms an interior angle which retains and intensifies the lively warmth of the sun. This place is very agreeable in the winter and serves as a gymnasium for my servants during that season. No other winds are heard there but those occasioned by the clouds that disturb the serenity of the sky."

There is, in this description, no dwelling upon the size or grandeur of his house, its richness or its luxury; no reference to its appearance or its cost; but rather an insistence upon its convenience; its quiet here, the view to be obtained there; its warmth here, its shade and coolness there; its absolute fitness for its purpose and its site. These were the things he had in mind because these gave him happiness and comfort.

Pliny had not only this house in the environs of Ostia, but also another in

Tuscany. In a different locality, a different climate, he describes different arrangements. These two country houses present plans peculiar to each and determined by the situation, the advantages of aspect, scenery, water, and the habits of the country; but these conditions and these alone were factors in the disposition of their plans. It may be said that these were great houses occupied by a wealthy and powerful family and kept in order by a large and numerous retinue of servants. So they were, but the principles that underlie the disposition of parts in the cottage and the palace are essentially the same, only differing in the degree to which they are capable of application.

By reason of the very nature of this problem of fitness of home to site; by reason of the fact that each case is, in a sense, unique, and must of necessity, be so; there are no rules which will assist, no set method for its solving, except the broad and general rule which applies to the aspect—the relation of the house to the points of the compass—and then only under the average conditions of wind and weather which obtain in

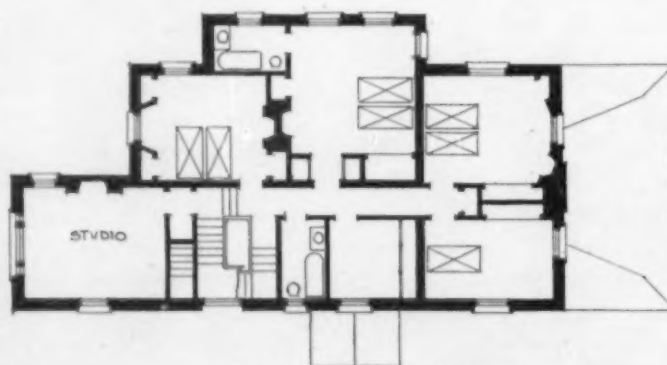


FIGURE 4—FIRST FLOOR

The House and Its Site

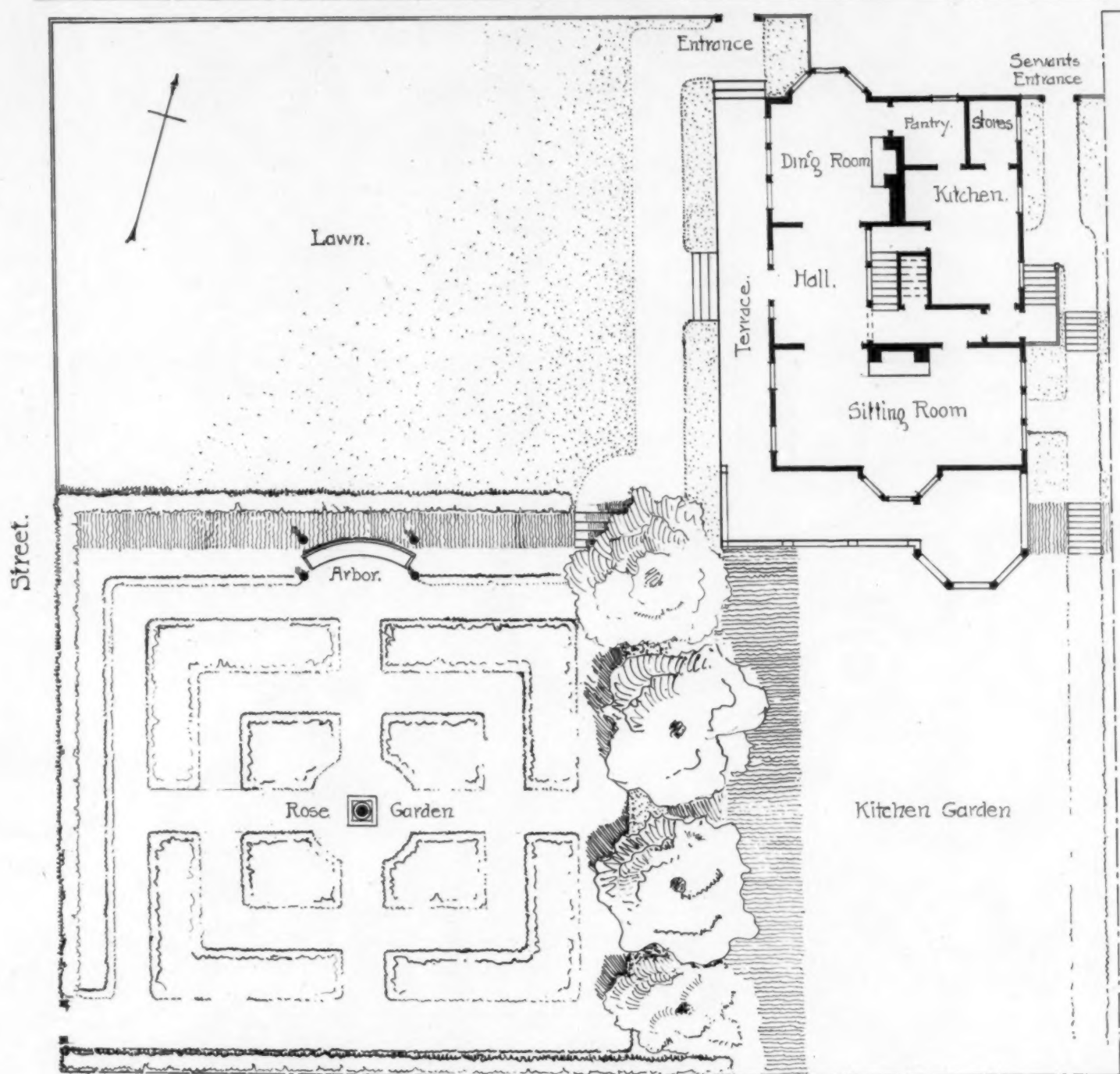


FIGURE 5

any particular locality. This, broadly stated, and applicable especially to this latitude, with modification for some locations, is as follows: Open the living and principal bedrooms to the sun, that is, from the east to the southwest, and regulate the kitchens, offices and minor rooms to the west to northeast. The reason for this is obvious. The major rooms have not only the cool breeze of the summer but also the warm sun of winter, and are protected from the cold and driving northwest winds of the latter season by the position of the minor rooms.

Now, when it is considered how special conditions of site may work against even this broad law: how

conditions of prospect may complicate and seek to nullify it, and how it becomes necessary to weigh and balance all these conflicting factors, it is plain that no general rule will or can be made to apply.

In the necessary absence, then, of any general law, it may be well to show, by illustration, some solutions that have been arrived at under certain given conditions; some fittings to site, with its attendant factors, and the reasons therefor; not as models but as signboards pointing a way to similar considerations.

These illustrations are of houses designed and built by the author of this article and architects of his acquaintance, and are selected as examples of

House and Garden

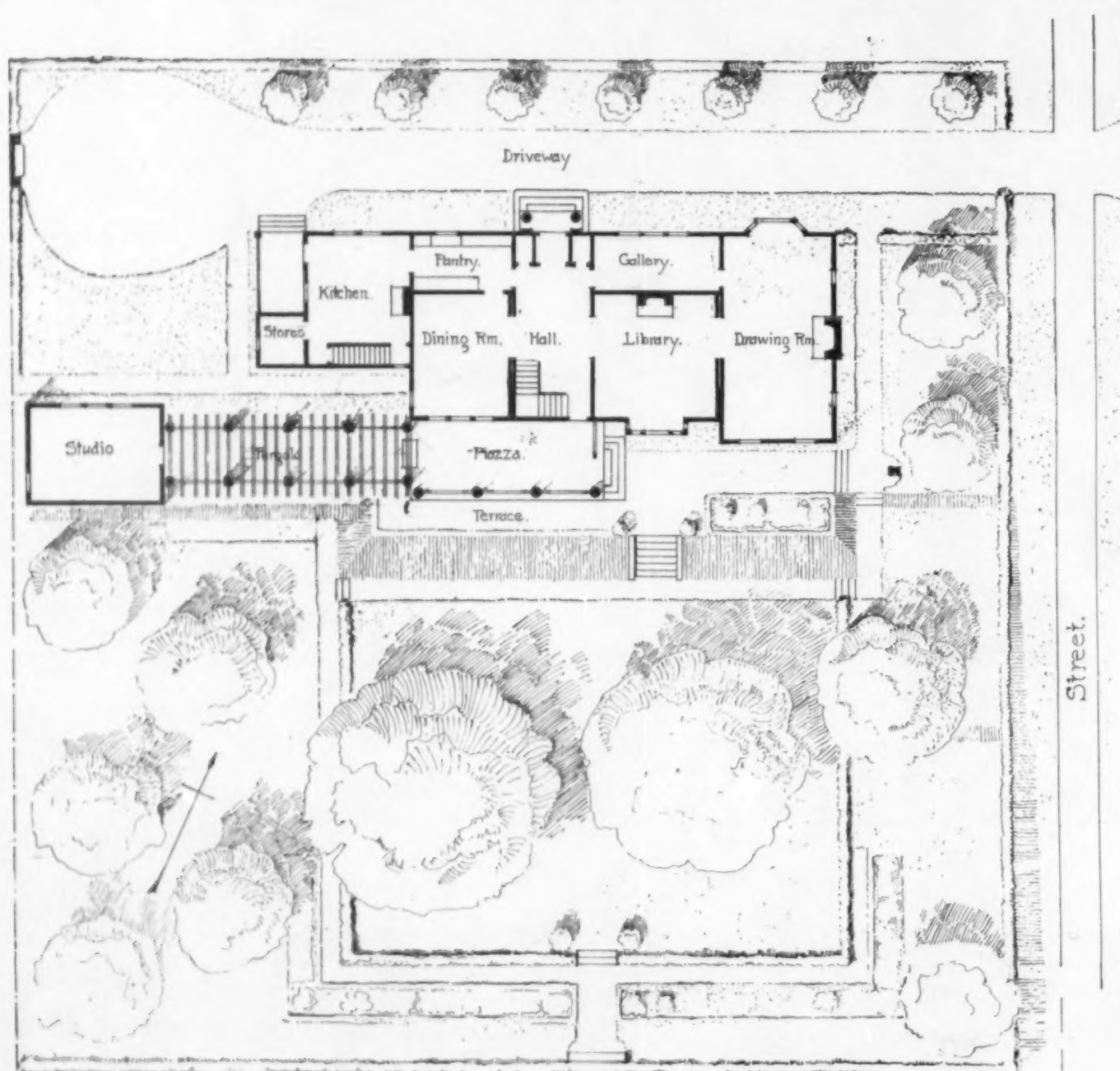


FIGURE 6

average and every-day practice,—not the usual or uncommon—are selected as being of moderate cost and built for men of moderate habit of life; as being, in fine, average houses under average conditions.

They are all of the country or suburban type—the city house, except where its grounds are large, being designed under such restriction and limitation of site as to make this inquiry usually uninteresting. They are all by plan alone, since their appearance has nothing to do with the present consideration of this subject.

The first, Figs. 1 and 2, are respectively the grounds and plan of a house built just beyond the northern limits of the city of New York.

Upon the top and part way down the southern slope of a hill which juts into a valley as a point juts

into a broad river, stood an old orchard. The farm, of which the orchard was a part, had ceased to be of use; but the orchard still bore fruit, and the resident farmer—farmer and caretaker in one—tilled only such portion of the land as his needs required; the rest lying fallow and waiting the march of events. From the edge of the hill toward the south, by reason of the hills inset into the valley, the valley's length spread out, with wooded heights on either hand and, at its extreme end, some ten miles away and at the horizon's level, was traced the many arches of a bridge, the High Bridge across the Harlem. From this orchard, to the west, could be seen the heights of the Palisades; and to the east, the silver ribbon of the Sound and the green hills of Long Island. To the north, behind the orchard, the land lay high and

The House and Its Site

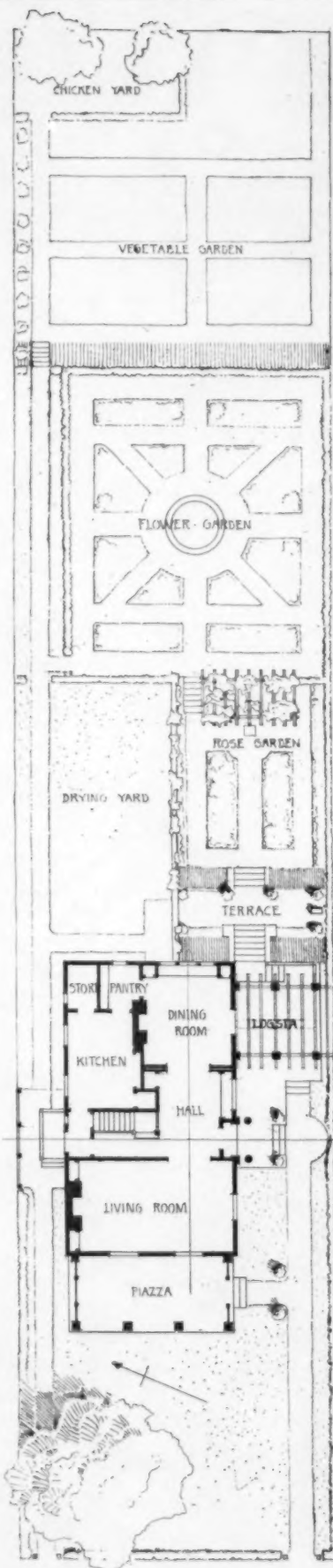


FIGURE 7

wooded with short and inconsequential view. Upon this hill, at the edge of the orchard, was built the house of Mr. M—. Before determining the site and the plan the approach required consideration.

The main road from the railway station, which lay some three-quarters of a mile to the eastward, wound across the southern face of the hill — making the southern boundary of the property — and after joining the Ridge road led into the farm from the northeast. On account of the greater travel, and for other reasons, this approach was not suitable. There was an old road, however, which sidled up the hill and lost itself in the orchard, and this, with some regrading and change in direction toward its upper end, became the private road and a very satisfactory approach.

At the top of this road was a level piece of ground and two good trees which fixed the size of the sweep before the door and the site of the house; but this sweep, and the site,

was close up to the northern side of the property,

and the sun and the prospect was in the other direction, and so the front of the house became the back, and the plan made itself.

The kitchen wing was bent back to allow the full advantage of the prospect to the west and as a protection to the rest of the house from the cold winds of the northwest, and helped, with the hedge upon the other side, to form a forecourt before the door and a screen to the drying yard and stable. All the living-rooms, and the bedrooms above, enjoy the prospect and the sun.

Upon the outskirts of the same city, and on the eastern side of the same valley, a painter of pictures, Mr. G., desired to build his home and studio upon a piece of ground to which he had fallen heir. Perhaps if the plot had not come to him in some such way, it had not been used for this purpose, since, at first sight, it seemed almost impracticable.

The conditions of the site were these: It lay on the westerly side of a street which ran across the westward-facing slope of a hill rising, quite steeply, to a ridge perhaps a quarter of a mile beyond.

The plot had a length along this street of something over one hundred and fifty feet, a width at its northern end of about fifty, and widened at its southern limit to one hundred and twelve feet. It had a drop in grade from the street to the back of the lot—from east to west—of fifteen feet. Two fair-sized trees stood in the southwest corner.

The street in front was far from pleasant, being in an adolescent condition and occupied, from time to time, by dust and a noisy trolley car and, permanently, by a prospect of the stilted ends of dwellings on a higher level and the possibilities of speculative building.

To the north and south the immediate view was unimportant, but to the west lay the heights above Kingsbridge, the stretches of the Harlem river and a vista to the Hudson and the wooded shores of New Jersey.

The conditions imposed by Mr. G. were—*sine qua non*—a home, a studio of very moderate size and removed as far as possible from the machinery of the household, the benefit of all the sun and view there was, and as much garden and privacy as possible. Figs. 3 and 4 show how these were met.

The house was set close up to the northern and narrow end of the lot and as near the street as possible, leaving but a strip of yard and a kitchen court. A wall some eight feet high was built about the garden and the yard. No living, and but one bedroom, looks upon the street, the street windows in the living-room being set high from the floor. The sun marches through all the rooms and each enjoys his view. The trees roughly determine the width of the garden and, by filling and levelling, it occupies all the remaining available space, the hedge screening any near unpleasant prospect and securing

House and Garden

privacy, while the hedged alcove gives a quiet and secluded nook.

The projecting terrace off the dining-room, glazed in, serves as a winter conservatory, and the house and grounds fulfill, to his satisfaction, the requirements of G.

In a New Jersey village was a lot upon a corner—Fig. 5. The street, whose trend was east and west, was the main street of this community, while the other was of minor importance. At their junction stands the house of Mrs. M.

The ground slopes sharply toward the south, so much so that the basement at the rear stands wholly out of ground.

The village lies on the southern slope of the mountains, and the view—save that of the village street, dusty and tame—lies altogether to the south, across a valley through which a river flows to Morristown and the Orange Hills. Hence the house was built as shown.

Set almost upon the street, to keep the cellar floor at grade and give as large a garden as might be; the dining-room with a projecting bay to catch the morning sun; the living-room, where lies the prospect; the minor offices, upon the main street front. This last, to the consternation of all neighbors, critics and general wiseacres. These said the position of the living-room was "quite unusual;" the poking of the house up in the corner was "absurd," but the pantry on the main street was "the limit." The house was "anathema" until finished, occupied, and visited. It is now pronounced "most satisfactory," "individual," and "wise."

Perhaps, of these illustrations, a house—Fig. 6—built in a minor city upon the north shore of Long Island Sound, by an architect for his own occupancy, is the best example of the wisdom of a radical departure from conventional arrangement under quite usual and commonplace conditions.

The plot, about one hundred and fifty feet square, with a few fine trees in its southern half, lay upon a long, gentle southern slope at the bottom of which, and perhaps half a mile away, was the Shore drive and the waters of the Sound. What view there was lay in that direction, but this was fugitive, glimpses between houses and the foliage of trees. Boldly was the house set, its narrow end to the street as near the northern boundary as a driveway and space for planting a screen of trees would permit. All the living-rooms open to the prospect, to the sun and the cool southerly breeze of summer and are protected from the cold north winds of winter. The

expanse of lawn, its privacy, and the great trees remain; all that the plot could give in inherent advantage has been retained. Imagine this in the hands of the Philistine.

The house in the centre of the plot, its front to the street, its side to the sun and air, its face to the cold; the trees gone, the lawn frittered away by subdivision; all charm and individuality departed. The usual, the commonplace, the wasteful. Wasteful because the gifts the gods provided have been thrown away.

In the same city, some little distance away, but under very different conditions was built a house for Mr. J.—Fig. 7.

The lot was but fifty-one feet in width by some two hundred and sixty in depth, and lay upon a slope that dropped from the street to the rear—the east—some twenty feet. This slope continued to a valley, then rose, studded with trees and houses, to a ridge. Across this valley was the view; that in front being the usual suburban street with a quartering prospect down its length to the Sound. Note the boldness of the entrance on the side, insuring a living-room of generous size; how advantage is taken of the view across the valley and the garden, in the placing of the dining-room with its attendant screened loggia and its exposure to the morning sun; how this same view is made part of the vista through the house and framed in, as a picture, by the great window of this room.

Consider the charm of a breakfast in that vine-clad loggia on a June morning, the rose garden at one's feet, the sun filtering through the lattice upon white linen and sparkling glass, the distance from the street, insuring privacy and quiet; both planning and fenestration of the adjoining house so done as to guard this loggia, and the entrance, from direct observation. This was the way of the building of the house of J. upon, that bugbear of the designer, the long and narrow lot.

The experience of the author of these remarks with his own clients, and his observation of the results of the experience of other architects with theirs, has led him to believe that the subject matter of this inquiry does not always receive its due consideration.

If, without adding one jot to the cost, in dollars, of the house, something of benefit, comfort and beauty *may* be added to it, the taking pains is well worth while; and if these remarks may cause anyone to consider the wisdom of taking such pains, they have accomplished their object.

THE IMPORTANCE OF CEMENT AND ITS PRODUCTS IN HOUSE BUILDING

By J. M. HASKELL

PORTLAND cement is a dry almost impalpable green powder, sometimes blue, sometimes yellow in tone, which is sold in barrels or bags.

It has the peculiar property that, when it is moistened with water, it forms, on drying, an extremely hard mass, like stone. This result is due to something more than the sort of hardening which takes place when powdered earth or clay is moistened and dries again into a hardened cake, for a chemical change has taken place through the action of the water upon the cement powder, and the dried product is something quite different chemically from the original powder.

Cement
Mortar

The principal use to which the Portland cements were originally put, and for which, indeed, they continue to be universally employed, was in the making of mortar for brickwork and stone masonry.

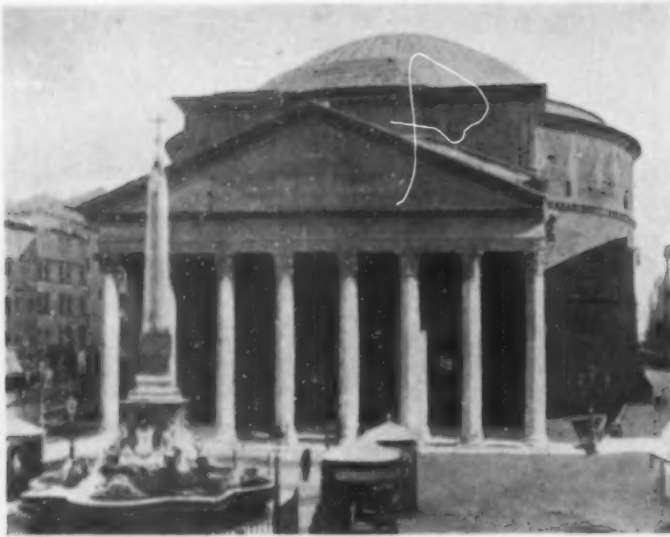
Cement mortar is, however, not composed of cement powder and water alone. This mixture is not used for several reasons. First, because the neat cement mortar, as it is termed, is so much harder than bricks or most building stones that it would not be good policy to use it, as nothing is really gained by having the cementing or binding material harder than the pieces of solid material out of which the masonry itself is constructed. Secondly, a mixture of cement and water alone, shrinks in volume as it dries, and cracks on drying owing to the contraction of the mass. For these two reasons the cement is usually mixed with some inert substance which, while increasing the volume of the mortar, and so preventing cracks on drying, reduces its strength to that of the materials it is to bind. The inert material usually employed for the purpose is clean sharp-grained river or pit sand; and as such sand is many times cheaper than



THE VERSATILITY OF CEMENT

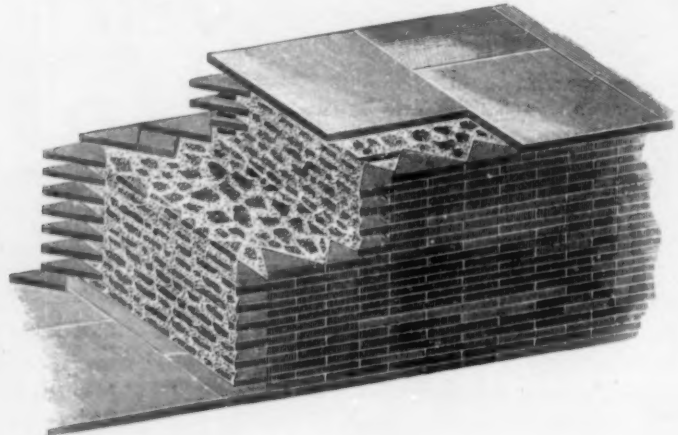
Cement Age.

House and Garden



THE PANTHEON, ROME. BUILT A. D. 120. WALLS OF CONCRETE, FACED WITH BRICK

cement, a great economy of cost is effected at the same time that the physical and structural qualities of the mortar are improved. The proportion of sand to cement varies from three to six according to the hardness of the stones or bricks in the wall and according to the weight to be imposed upon it.



EXAMPLE OF ROMAN WALL, INTERIOR OF MORTAR AND SMALL STONES, BRICK FACING

Hydraulic Properties of Portland Cement

The Portland cements have the further invaluable property of not being affected by the presence of water after the first water is added to the dry powder to form the wet mass, or mortar. That is to say, if we mix the dry cement powder with water sufficient to form a paste we may place this paste under water and the hardening process will continue as if it were in air, although the time of hardening or setting will be retarded.



A COUNTRY HOUSE IN LOWER CALIFORNIA

Cement Age

Built entirely of concrete, with tile roof. This example illustrates the decorative possibilities of concrete where a plain effect is not desired.

This is very suitable to the sub-tropical setting of the house

The Importance of Cement and Its Products in House Building

The ultimate degree of hardness attained, however, will be the same in either case.

Advantages Of Cement Mortar We have, then two, or rather three, indispensable qualities not possessed by the old-fashioned lime mortar.

First. Cement mortar becomes hard within a comparatively short time, varying from two or three hours to a day, according to the brand of cement.

Second. A degree of hardness not attainable with lime mortar except after a lapse of years.

Third. It is unaffected by the presence of moisture or even free water in any quantity.

This latter quality makes the use of cement mortar imperative for all foundation work and no basement walls should ever be laid in any other kind, as lime mortar, which hardens very slowly even under the most favorable circumstances, never hardens at all so long as it is kept moist.

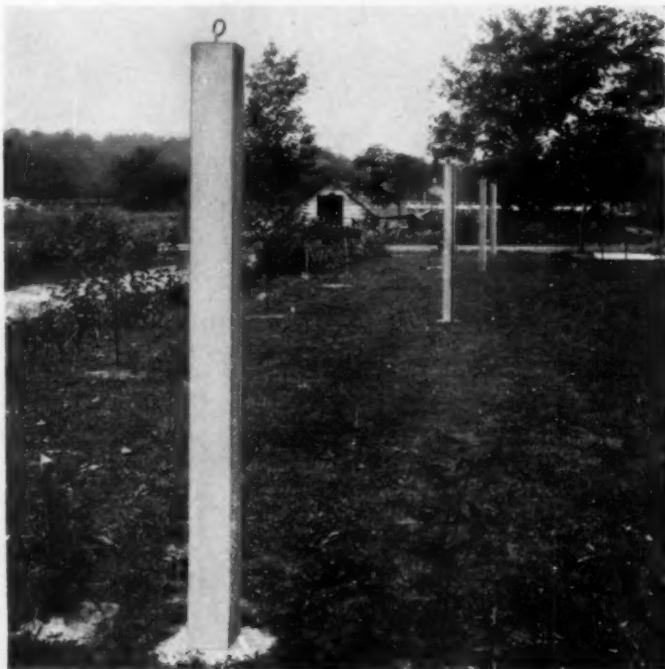
Economy of Cement Mortar For this reason, even in a cheap class of buildings, cement mortar should be used from the lowest course of the foundations to and



A CONCRETE HOUSE IN SAN FRANCISCO

Cement Age

When the planting of the lot is completed much of the bareness of the side wall will disappear. The other side of the house is the more important and the photograph should have been taken from that point of view



CONCRETE POSTS, SUITABLE FOR BACK NETS, CLOTHES YARDS, ETC.

Cement Age

including the water-table course, up to which point the moisture of the soil is apt to rise by capillary attraction. Above that point, even where, for the sake of economy lime mortar is used, it is a further 'real economy to add to the lime mortar a small portion of cement, about a fourth or a fifth of the volume. Even this slight addition effects a radical change in the character of the mortar, and the increase in setting or hardening capacity, in resistance to moisture and in ultimate strength, is greatly in excess of the ratio of increased cost, which is slight.

The Value Of Good Mortar

The value and importance of good mortar is usually not understood by homeowners. Speaking from an active experience of twenty-five years gained in the erection of many kinds of buildings I may say that if I were offered the choice between building an important wall of good mortar and indifferent stone or brick or with the best quality of stone or brick and indifferent mortar, I would invariably choose the former. The strength and durability of old Roman work is mainly due to the excellent quality of their mortar

House and Garden



VIEW OF A COTTAGE BUILT IN THE SUBURBS OF NEW YORK FOR \$7,400
Sullivan W. Jones, Architect
Built of cinder concrete mixed in the proportion of 7 to 1 *Cement Age*

and their lavish use of it. The drawing and photograph of an old Roman construction, on page 236, which is standing to-day with unimpaired strength, fully illustrates and confirms the point in question; and it is only one of many similar examples.

Stucco and Pebble Dashing

In the use, too, of stucco or pebble dashed work, an admixture of cement is essential, as permanence cannot be assured by any other means. Stucco is the name usually given to mortar when it is applied to the outside of a wall and spread over the surface of the wall either as a means of protection from weather, or for decorative effect, or both. When pebbles are thrown or dashed against the wall while the mortar is still soft they are held in place as the mortar hardens, and the resulting effect is known as pebble dashed work.

This use of mortar is one of the severest tests of its excellence and durability to which it can be subjected, as its widespread surface and relative thinness weaken its resistance while subjected to the full force of storm and frost. Under such circumstances it is of the highest importance that cement should be added in large quantities, and that the mortar should have a strong hold or clinch upon its supports.

Wire Cloth

This support was formerly supplied by ordinary wooden laths laid as is customary for inside plastering, but a modern improvement

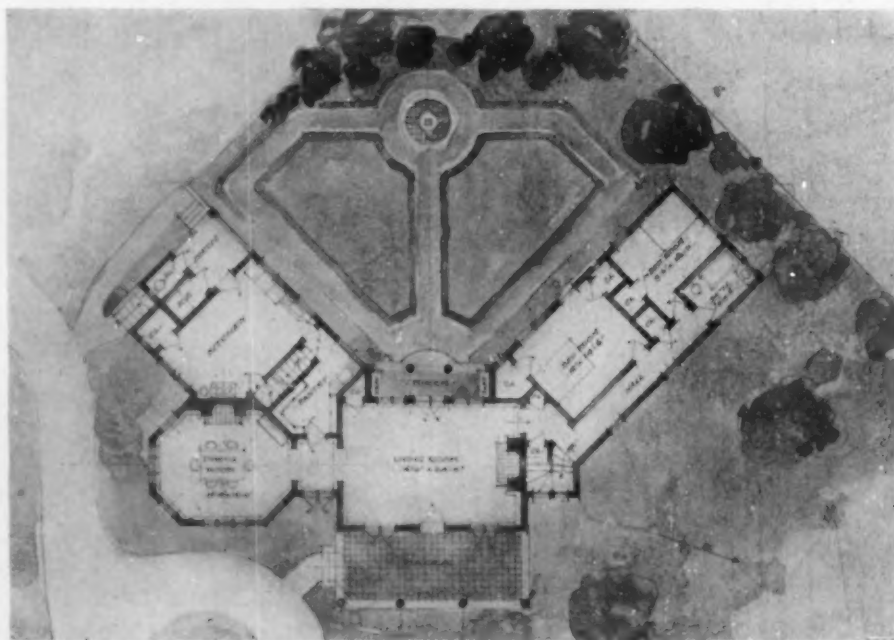
consists in the use of what is known as wire cloth, stretched between supports on the wall, in the meshes of which the mortar finds a secure hold.

The above remarks apply primarily to the way in which stucco or pebble dashing is applied to the outside of a frame building, as it is more usual to apply the material directly to the surface of a brick or stone wall; but I am inclined to think from my observation of the results that the wire cloth method is advantageous even for masonry structures.

Concrete

Concrete may be shortly explained by saying that it is mortar to which small stones have been added.

The purpose of this addition is to convert the mortar from a simple binding material to one which can be used as a substitute for masonry itself. Or, to put it in another way, it enables us to build a wall of any desired height, breadth or length even to a mighty dam two hundred feet high, (the severest possible test) out of stones not larger than one or two inches in their greatest dimension. Thus the largest building operations can be effected by the utilization of what, so far as the small stones are concerned, is almost waste material. Indeed the growing use of concrete is the best possible illustration of what was previously said about the relative value, in a wall, of the mortar and the stones or bricks.



GROUND FLOOR PLAN OF THE \$7,400 CONCRETE COTTAGE SHOWN ABOVE
Sullivan W. Jones, Architect *Cement Age*

The Importance of Cement and Its Products in House Building

Making Concrete

To understand the peculiar value of concrete let us consider a simple case. If we make a wooden box without a top and fill it with a mixture of cement mortar and small stones, in the course of a day or two we may knock away the box and have a solid block of stone. The mixture went into the box wet, plastic and disintegrated and comes out, though not yet quite dry, hard, solid, and monolithic.

This peculiar quality of concrete, whereby it may be made in fragments and piecemeal so to speak, but hardens into a solid mass, gives it a field of application which is limited only by the wishes of the user. Let us see what use may be made of it in building a house.

In order that the house may stand upon a secure footing the lowest course of the wall is made wider than the wall above, and large stones are laid in a trench which has been dug to receive them below the level of the general cellar bottom. On these stones the wall is built, and the value of the footing course is practically destroyed if the stones composing it are not long enough to fill the trench completely from one side to the other. It is often impossible to meet this condition, and in such cases concrete offers a ready and economical substitute. It is mixed on a board platform, wheeled in barrows to the trenches, tipped in, rammed down, and left to harden. In twenty-four hours the wall may be started, and continued



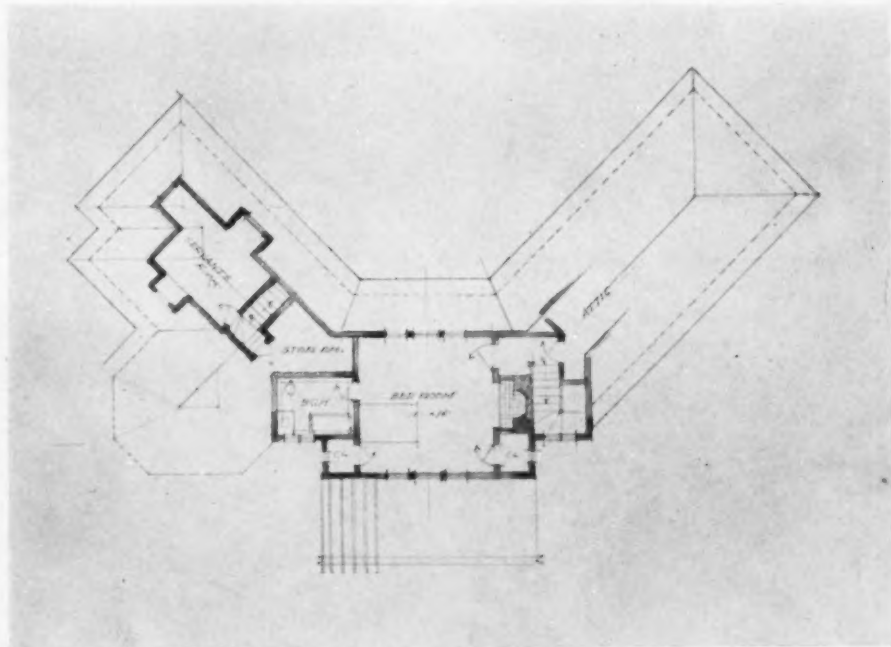
GARDEN VIEW OF THE \$7,400 CONCRETE COTTAGE. *Cement Age.*
Sullivan W. Jones, Architect

without interruption to completion. Even where large stones may be had, concrete is often preferred by architects on account of its dependability. The usual formula for a concrete mixture is one part of concrete, three parts of sand, and five of small broken stone or gravel. This makes a concrete strong enough to stand the severest tests, yet it may readily be seen that the expense of the cement is inconsiderable. Concrete should be mixed as follows:

The cement and sand are first mixed dry, being turned over several times to ensure a thorough mixing, water is then added from a hose with a rose sprinkler attached to prevent the washing away of the cement, the stone or gravel is then added to the mortar, the mixture being thoroughly turned over at least three times to ensure the coating of each piece of stone with the mortar. This being done, the mixture is carried away to the trenches and deposited, as above described.

But concrete has in the past few years come into its own, as its possibilities have been recognized, until it is quite capable of replacing most, if not all of the more usual building materials. As an illustration, it is sufficient to quote, in addition to the dam above noticed, an office building of eighteen storeys which has been built entirely of concrete.

Concrete Houses The building of a house entirely of concrete, walls, partitions, floors and roof, is a simple matter. The walls are built very much as we made the concrete block in the wooden box. Boards are erected at a



SECOND FLOOR PLAN OF THE \$7,400 CONCRETE COTTAGE.
Sullivan W. Jones, Architect

Cement Age

House and Garden



\$3,900 CONCRETE COTTAGE NEAR NEW YORK
Sullivan W. Jones, Architect

Cement Age

distance apart equal to the thickness of the wall about to be built, and concrete is dumped between them and rammed well into place. This process is continued all around the building and for all the cross partitions. After the walls are four or five feet high the boards are removed and replaced at a higher level and the process continued, until the desired height is reached.

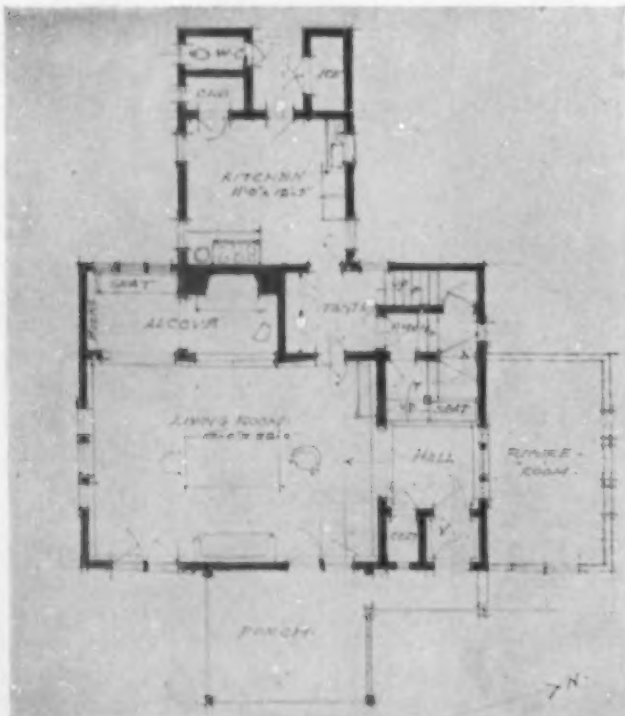
Reinforced Concrete The process of building the floors and roofs is somewhat different. If these were built of plain concrete like the walls they

would have been heavier (because thicker) than is desirable. The walls, of course, are supported continuously throughout their entire length on the foundations. But the floors are supported continuously only at their edges. To overcome this difficulty a method known as "reinforced concrete" has been devised and has proved so successful in application that entire buildings are now so built; outside walls, and all. This method of strengthening or reinforcing the concrete is simplicity itself. Steel wire or thin rods, or still better steel frames are imbedded in the concrete which enormously increases its resistance to bending pressures (such as a floor is subjected to) at a very slight relative increase in the cost of erection.

This great increase in strength makes it possible to build the concrete thinner than would otherwise be possible, and it is for this reason that walls of high concrete buildings are built by the reinforced process. So applicable indeed is this principle to the construction of concrete beams and posts, that it has been successfully employed for the purpose of erecting high office buildings, in which the usual steel beams and columns are entirely replaced by concrete substitutes.

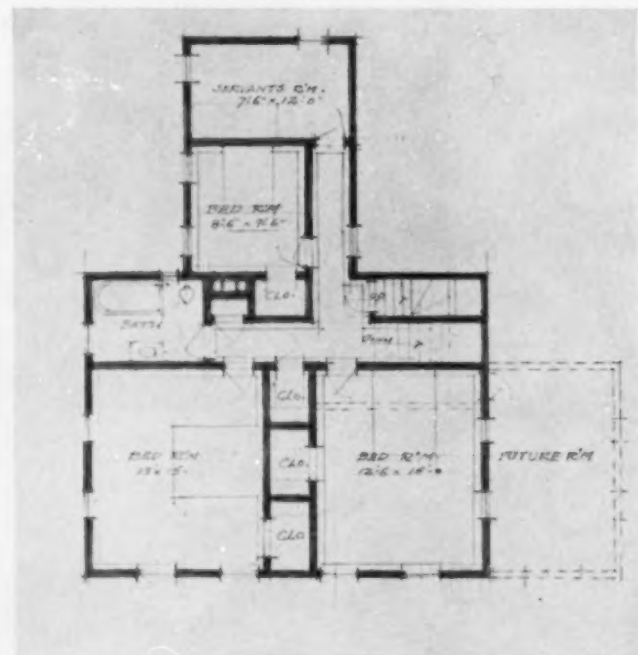
Concrete Piling

The latest application of this principle is its employment for piling in foundations. Each pile is made of reinforced concrete and



GROUND FLOOR PLAN OF \$3,900 CONCRETE COTTAGE
Sullivan W. Jones, Architect

Cement Age

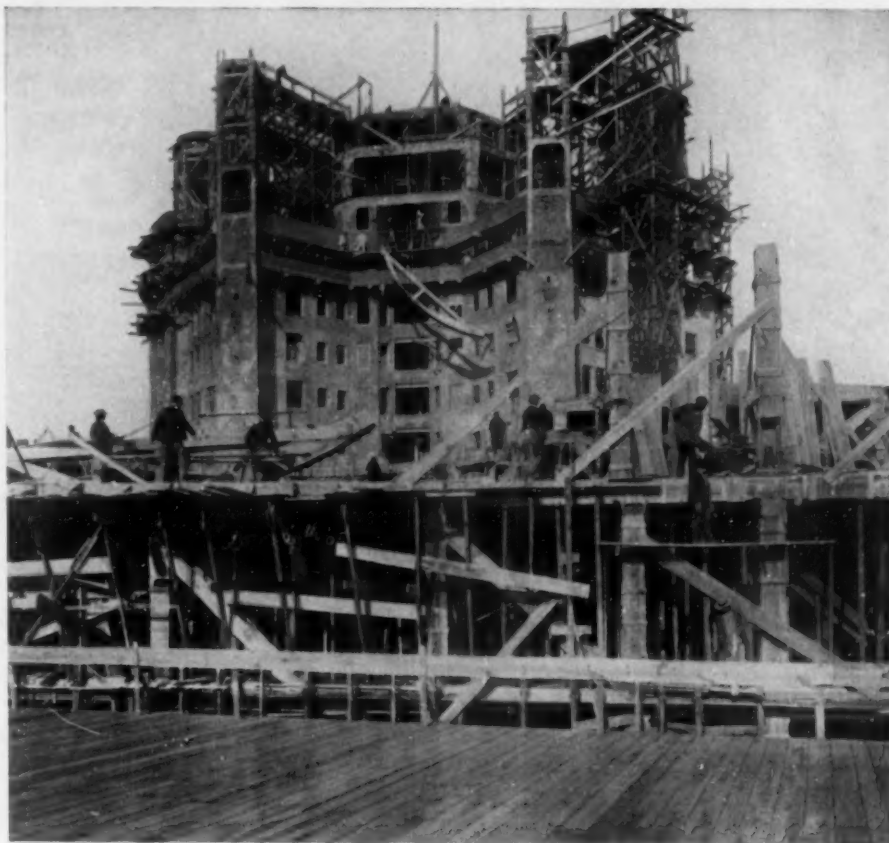


SECOND FLOOR PLAN OF \$3,900 CONCRETE COTTAGE
Sullivan W. Jones, Architect

Cement Age

The Importance of Cement and Its Products in House Building

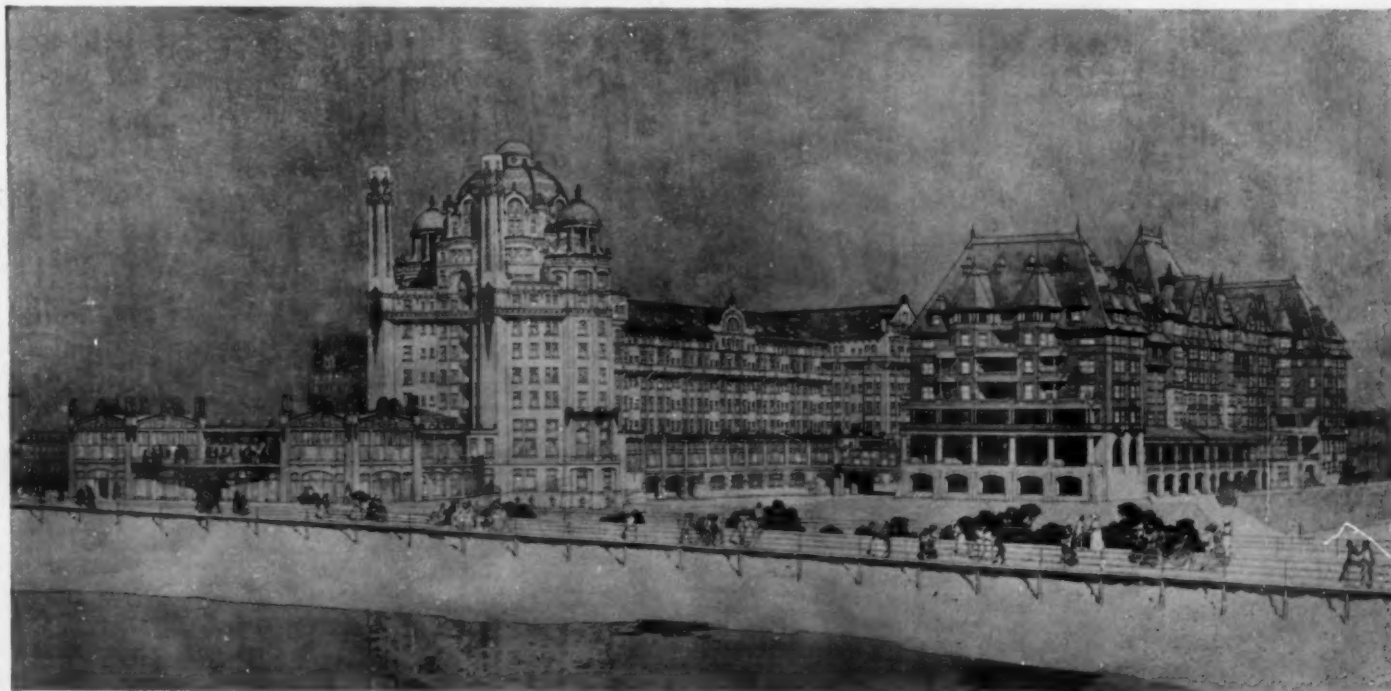
is put in place by one of three methods. First, a hollow steel form, sixteen inches in diameter and of the desired length, is driven by a pile driver and then is filled with concrete, which is rammed in the form in layers. The steel form is slowly withdrawn as the concrete pile takes shape. In the second and third methods the pile is made wholly above ground and sunk either in the usual way, by a pile driver, or by a water jet through a hole left in the centre of the pile. In the former method the pile is protected by a steel cap while being driven, while the latter is applicable only in sand or very soft ground. The first method is known as the "Simplex" process and five thousand, sixteen-inch piles from thirty to forty-five feet long were recently placed in position in a large operation in seventy-six days. The difference in the magnitude of the foundation work required by the old and the new methods is well illustrated by the sketch on page 244, and in the instance above referred to it was shown that the time saved in rental fully paid for the piling foundations.



PHOTOGRAPH OF THE BLENHEIM DURING ERECTION, SHOWING METHOD OF CONSTRUCTION

Cement Age

The strength of the simplex reinforced concrete piles is enormous.



GENERAL VIEW OF THE HOTEL BLENHEIM, ATLANTIC CITY. Price & McLanahan, Architects *Cement Age*

The largest example of reinforced concrete architecture in America. This hotel represents the latest methods of concrete construction as adapted to the largest operations. All of the structural parts, such as columns, roofs, floors, girders, balconies, devices, are of reinforced concrete.

The exterior walls are of hollow tiles, plastered inside and out with cement mortar

House and Garden



THE APPLICATION OF CONCRETE TO BALUSTRADES, RAILINGS, ETC.
Cement Age

In a recent test at Pittsburgh five piles placed as a foundation for heavy machinery in the Westinghouse establishment, bore a load of three hundred tons without settlement. This is said to be the heaviest test load ever placed on piles of any kind.

The Great
Advantages
Of Concrete
Houses

To return, however, to our concrete house. When it is built as described it is practically monolithic. That is to say

it has no joints nor crevices, and is as continuously solid as if carved out of a single stone. A house built in the old way, however carefully, is apt to leak air about the windows and outside door frames.

This condition becomes aggravated of course during high, cold, winds. In the concrete house, the window and door frames are placed in position before the concrete and the concrete packs tightly around them closing all possible sources of leakage from that direction.

The concrete house, too, is vermin proof, as there are no accessible hollow spaces in the walls, and, above all it is fire-proof. It is this latter, absolutely. You could no more burn a concrete house than you could kindle a fire with a block of granite, and if the draperies or other inflammable stuff in any room should, by mischance get ablaze, it would be extremely easy to confine the fire to the place where it originated.

Then again a concrete house is sound-proof. No noise is conveyed through floors or partitions. It is worth while to note that space may be saved in partitions by stretching wire on steel uprights and



CONCRETE BALUSTER IN A PHILADELPHIA BRIDGE, SHOWING ROUGHENED SURFACE, SOMEWHAT LIKE PEBBLE DASHING



CONCRETE BRIDGE OVER POQUESSING CREEK, PHILADELPHIA. THIS BRIDGE HAS A SPAN 71 FEET WIDE, WITH A RISE OF 9½ FEET
Cement Age

The Importance of Cement and Its Products in House Building

plastering on the wire. The resulting partition is less than two inches thick. And as to durability, if concrete construction has a fault it is just here. Any one who has noticed workmen attempting to cut a hole through a concrete wall, or a well laid concrete sidewalk needs no further evidence as to durability or the difficulty of tearing down or extensively altering a concrete structure.

The exterior of a concrete house may receive either one of two treatments. The surface, after the removal of the boards, is somewhat rough and of an irregular or patchy color. This is unavoidable. But it may easily be overcome either by coloring the surface uniformly with water paints, or by having a stone cutter go over it with a tool known as a pick. This works off the discoloring skim coat and leaves an effect very similar to that of a pebble dashed wall. This effect is well shown in the illustration of the concrete baluster on page 242.

The interior walls of the house may be finished in the usual manner with plaster, and receive wooden wainscoting, marble linings, stamped leathers, paint or paper, or any other decorative treatment desired.

The roof is usually covered with tiles, though slate, or any other covering may be used.

Finally, concrete houses are dry, warm in winter, and cool in summer, and wholly unaffected by the weather in general.

Garden Accessories Just as concrete, either plain or reinforced, lends itself to all demands of the



CONCRETE WORK ON THE FARM

Atlas Portland Cement Company

house structure, so its use has rapidly extended to the minor accessories of the garden. Seats and fountains, terraces and steps, sun-dials, benches, gate posts, fences, and any other feature needed may be readily built of it. It lends itself sympathetically to every demand for picturesqueness, and is especially adapted to bridge work.

Farm Buildings For farm buildings concrete seems almost an ideal material. The only expert labor needed is a foreman, as any unskilled laborer can, under such direction, mix the concrete and put it in place.



INTERIOR OF A CONCRETE STABLE

Turner Construction Co.

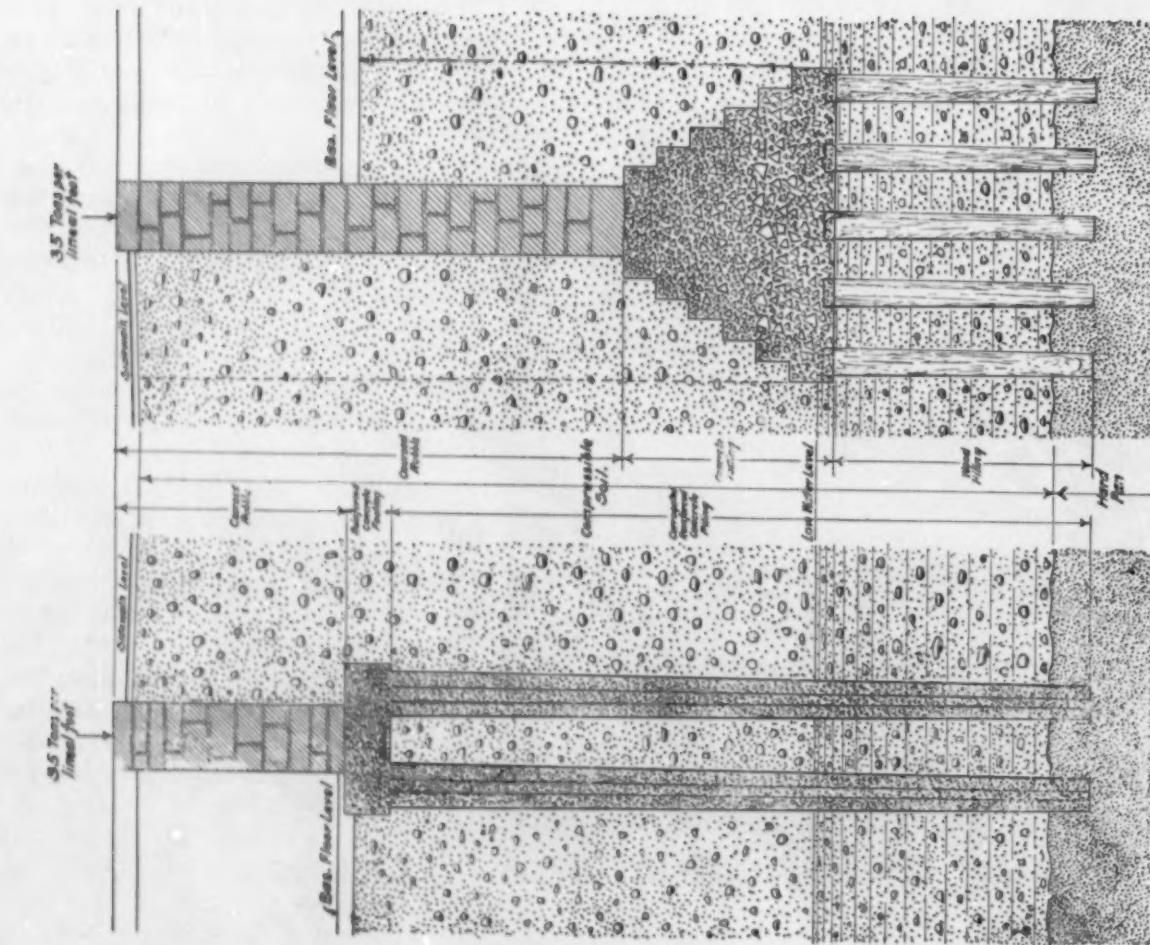
A Caution

While cement walls may readily be built as above described, it is very important that the work of building the floors and the roof should be placed in the hands of expert builders.

There are several companies undertaking this work with offices in all parts of the country, and their prices are very reasonable.

Relative Cost I have been assured by a very competent firm who do a great deal of such work that the cost of concrete construction for houses need not exceed by more than fifteen per cent the cost of the same house if built of wood throughout, and in not a few instances, where the conditions have been favorable, the cost has actually been less than for frame construction.

Cinder Concrete The house shown on page 238 is noted as built of cinder concrete. This is a term used to denote a concrete in



Corrugated Reinforced Concrete Piling

Wood Piling

FOUNDATION

Sketch showing the great advantage in economy, both of time and material, gained by the use of concrete piles over wooden ones

Comest Age



Test load of 300 tons on five concrete piles, Westinghouse Works, Pittsburgh. This is the heaviest test load ever placed on piles of any kind, and was carried by the piles without difficulty



The five piles which bore the test shown above. This photograph shows the piles ready for the concrete "cap," upon which the load rests

The Importance of Cement and Its Products in House Building

which the more usual material, stone, is replaced by cinders. As cinders are, of course, cheaper than stone the cost is lessened, and as they are the lighter material there is a gain in that direction also. Cinder concrete, however, has its limitations. In the first place it is much less strong than stone concrete, and can never be used for any portion of the structure that is not entirely self-supported. It will do well for walls of cottages or as a filling over floors which are otherwise abundantly strong to carry themselves. But it should never be used for the primary floor material, which, as we have seen, must always be of reinforced stone concrete.

Damp Resistance

Concrete, while very resistant to dampness is not absolutely waterproof and it is usual either to line outside walls with hollow tile made for the purpose, or what is quite as effective and more economical, wooden strips are inserted in the concrete which, being withdrawn before it has become thoroughly hardened, leave a series of hollow flue-like spaces in the walls near the inner surface which keep the interior always thoroughly dry.

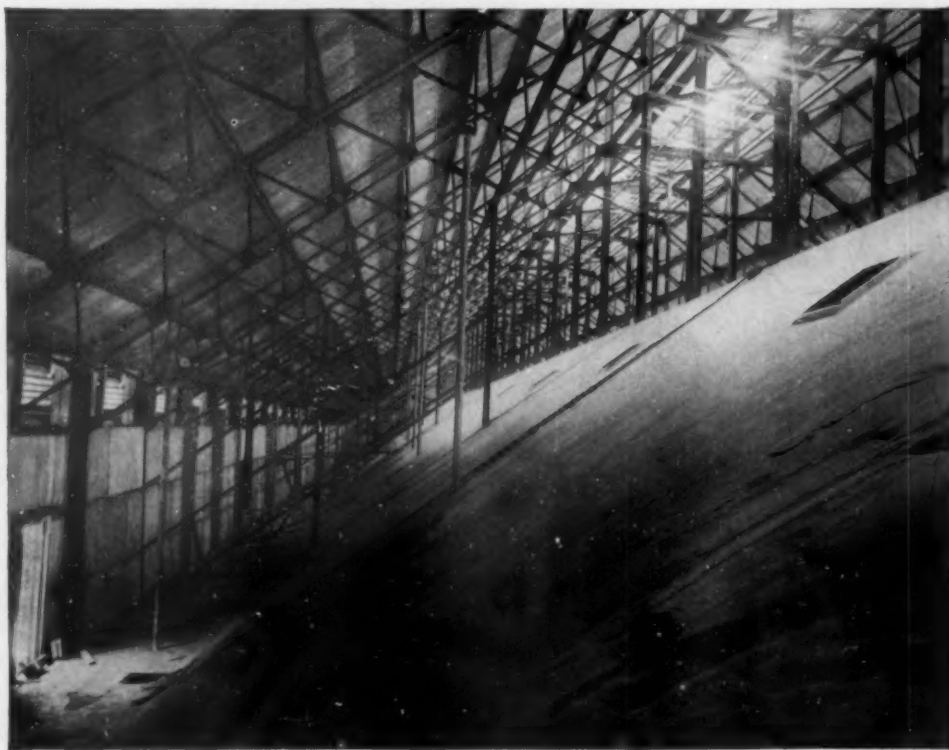


WIRE CLOTH IN PLACE READY FOR THE CONCRETE
Interior of Government Coal Pockets, Bradford, R. I.
Clinton Wire Cloth Co.

A Concrete Style

There is one phase of monolithic concrete house building which should not be overlooked. Like all other building materials, concrete has a distinctive character and distinctive qualities of its own, and if these are not regarded in the design, artistic failure is certain to result. It is not possible for instance to copy successfully in concrete a design which has been made for execution in carved stone or molded brick. Fine moldings cannot be run in concrete, nor ornamental foliage. To be successful, broad effects, after the Spanish manner, only should be attempted. In other words concrete should be used in its own way and for its own admirable ends and not tortured into masquerading in the disguise of something else.

I desire to record my obligations to the American Cement Co., to the Atlas Cement Co., to the American Cement Co., to the Hayden Automatic and Equipment Co., to the editors and publishers of *The Cement Age*, and to the Clinton Wire Cloth Co., of Clinton, Mass. for valuable data used in the preparation of this article.



THE FINISHED SURFACE OF THE COAL POCKET AFTER THE WIRE CLOTH IS EMBEDDED IN THE CONCRETE
Clinton Wire Cloth Co.

GARDEN WORK IN MAY

BY ERNEST HEMMING

ALL danger from frost being over, the most important work in May will be the planning and planting of what are known as the summer bedding plants. Where a mass of continuous bloom is wanted, there is nothing quite the equal of this class of plants: geraniums, cannas, lantanas, petunias, verbenas, and heliotropes being the most popular. Then there are the coleus, crotons, alternanthera etc., for foliage effects, and cannas, grasses, elephant's ears, castor oil plants, palms, dracenas and such like for sub-tropical effects. Many annuals like the nasturtium, ageratum, scarlet sage, and alyssum, may be used to advantage in combination with them.

In preparing a bed that is isolated on the lawn, dig it deeply and work in some well rotted manure; to look well such a bed should be slightly raised in the centre and the surface made a nice contour before planting, this will cause the centre plants to be slightly raised and give the whole a better appearance. Borders against a wall or other background should be slightly raised at the back, for the same reason.

The lawn now requires to be mown weekly, if not oftener, to keep it in good shape. The customary way is to run the machine over it raking up the grass after it is done. A better way is to have a box or some arrangement attached to the machine to catch it, it will save raking and is better for the lawn. Rolling after a rain will do much towards producing a nice level turf.

Shrubbery should be looking at its best as the majority of shrubs flower this month so there is not much to do among them except to keep tidy and enjoy them. A little time spent among them observing their habits of flowering will be very useful and prevent errors in pruning another season, also to learn the names of the most desirable in other gardens to be procured when the proper planting season arrives. There is nothing more lovely than the flowering peaches, cherries and crabs. While the bloom is rather transient, a place should be found for *Pyrus Ioensis*, *Pyrus coronaria*, *Prunus triloba* and the Japanese weeping cherry, *Cerasus pendula*, *rosea*.

If the weather is at all moist, this is an excellent time to transplant evergreens, as they may be moved much later than deciduous trees and shrubs. This class of plants usually has a formal habit of growth and always matures into fine specimens when their symmetry is not spoilt by crowding. To move an evergreen, first tie up all the branches so they will not get broken or be in the way, then dig a trench around the tree keeping two or three feet away according to the size of the tree, when down to a depth of two feet reduce the ball of earth to a convenient size for hand-

ling, preserving all the roots possible. The aim is to keep as much soil on the roots as possible. Have a hole dug ready for its reception, carefully gaging the proper depth; when placed in the hole, ram the soil firmly around it. If manure is used see that it is well rotted. Should dry weather succeed the operation, an occasional watering will be beneficial.

It is now almost too late to move deciduous trees and shrubs, but should it be necessary, prune them sharply, reducing the branches fully one third, and spray them in the evenings to prevent the wood from shrivelling until the roots become active in their new quarters.

In the flower garden almost all kinds of seeds may be sown and all kinds of planting finished up except in those localities where there is still danger of frost. Do not allow the sweet peas to fall down for the want of support, they will never be quite so good as when trained straight up without a check. When they are about six inches high they will be benefited by being earthed up. It is a very common error to sow seed too thick. Where the seedlings are coming up too thick thin out freely, it is better to have one good plant than a dozen weaklings. A moist dull day should be chosen for transplanting and each plant lifted with a little earth if possible.

Hoe, hoe, and hoe again is the rule for the vegetable garden, even when apparently unnecessary it is never a waste of energy, the ground being kept in a nice loosened condition prevents much suffering during dry weather.

Carrots, turnips, parsnips, onions, beets and such like should be thinned out just as soon as they can be handled, six inches apart should be the minimum distance, if good large roots are wanted. Sow corn every two weeks to insure a continuous supply. Those not acquainted with the merits of the different varieties should try the "Country Gentleman."

Set the poles in place and sow lima beans. Transplant tomatoes, cabbage, cauliflower, brussels sprouts, lettuce, choosing a dull day if possible. Sow self blanching celery in shallow boxes or a specially prepared bed of rich earth, so as to have good strong plants ready to plant in the trenches at the proper season. Some of the early crops such as potatoes, peas and French beans will have been harvested by the time the celery has to be planted in the trenches, and the ground will be free for this purpose. Arrange if possible to plant celery where the soil is moist and deep. Cucumbers, melons, and squash like rich, light, well-drained soil. If the ground is inclined to be wet and heavy plant the seed in ridges or hills and keep the soil constantly stirred with the hoe.

NORWOOD PARK

ESTATE OF MR. MURRY GUGGENHEIM, WEST END, NEW JERSEY

WADLEY & SMYTHE, Landscape Contractors. CARRÈRE & HASTINGS, Architects

WHEN one considers the enormous planting operations involved, the extensive grading, the construction of roads, terraces and walks, the well appointed Italian garden, all skilfully combined to give the place the effect of an old estate, it is astonishing to learn that this operation was created in its entirety in less than seven months.

The accompanying views tell the story of the result better than words and the briefest explanation will suffice.

On the front of the house, facing the north, is the large Italian garden, blooming with the choicest hardy perennials from early summer till late autumn, its beautiful fountain and miniature lake filled with choice aquatics. The marble statuary representing the four seasons; with the wide borders of heavy English ivy make a finish rich in form and foliage.

Opening upon the spacious library on the south entrance of the residence is a broad extensive terrace. This terrace being on the south side is in a very favorable situation and our illustrations show how successfully the various features have been utilized. Long avenues of large orange trees richly laden with fruit extend over the length of it; and

stately groups of pyramidal bay trees are placed about in effective places, giving this view a very realistic tropical air. Groups of pink and white water lilies and the deep blue water hyacinth dot the surface of the lake and add to the charming scene.

From this same side, looking through the belvederes we obtain an exquisite view of the rose gardens where thousands of roses bloom, in choicest and rarest varieties obtained from all countries, from the hardiest and most vigorous hybrids to the dainty "tea," pleasing the eye with the arrangement of their perfect scheme of color and filling the air with delightful fragrance. The "Rose-walk" is a pleasant retreat on a hot summer's day and leads down to the rose garden.

Here and there we get glimpses of vine-covered pagodas, large groups of variegated foliaged evergreens, massive clumps of rhododendrons whose lustrous leaves remain beautiful all the year round after the magnificent flower masses are gone; and large beds of the hardy mountain azalea, lead into the avenue of old trees which form the long driveway entrance.



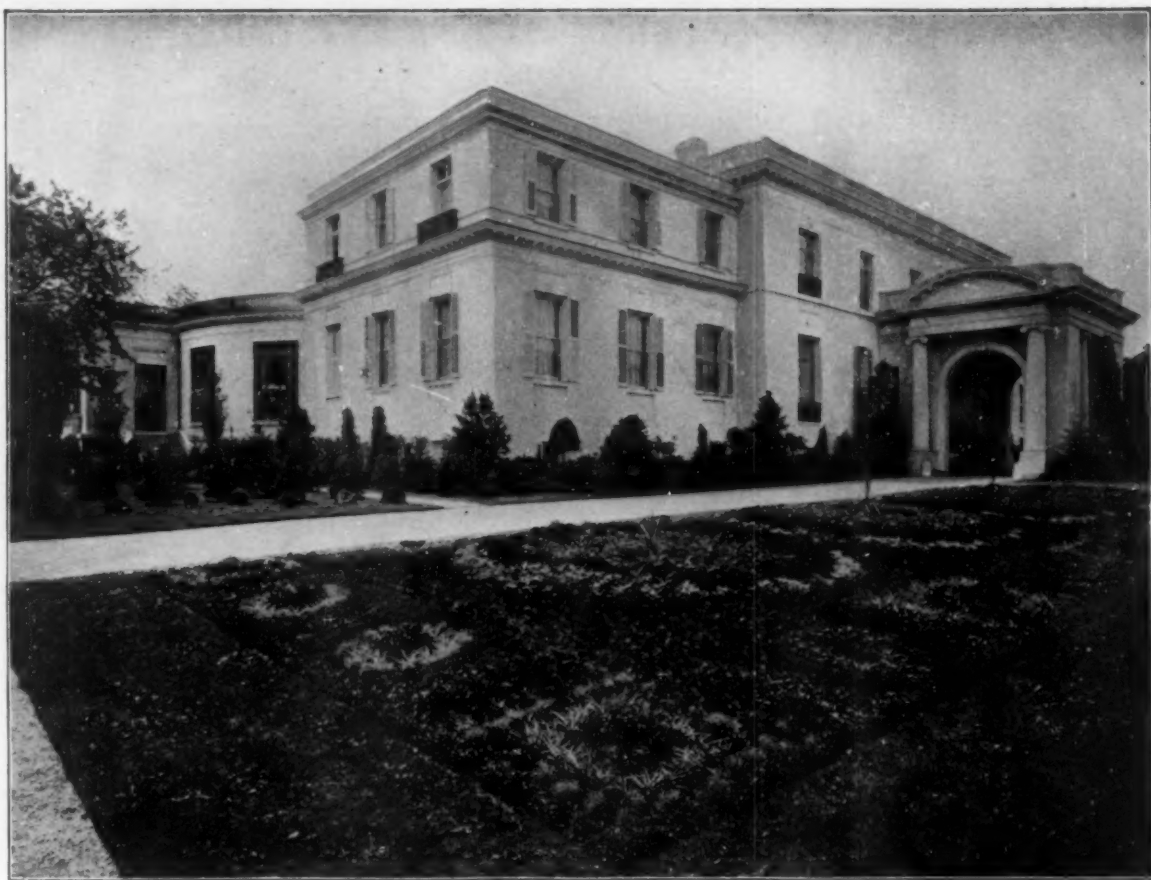
NORWOOD PARK—THE HOUSE FROM THE LAKE



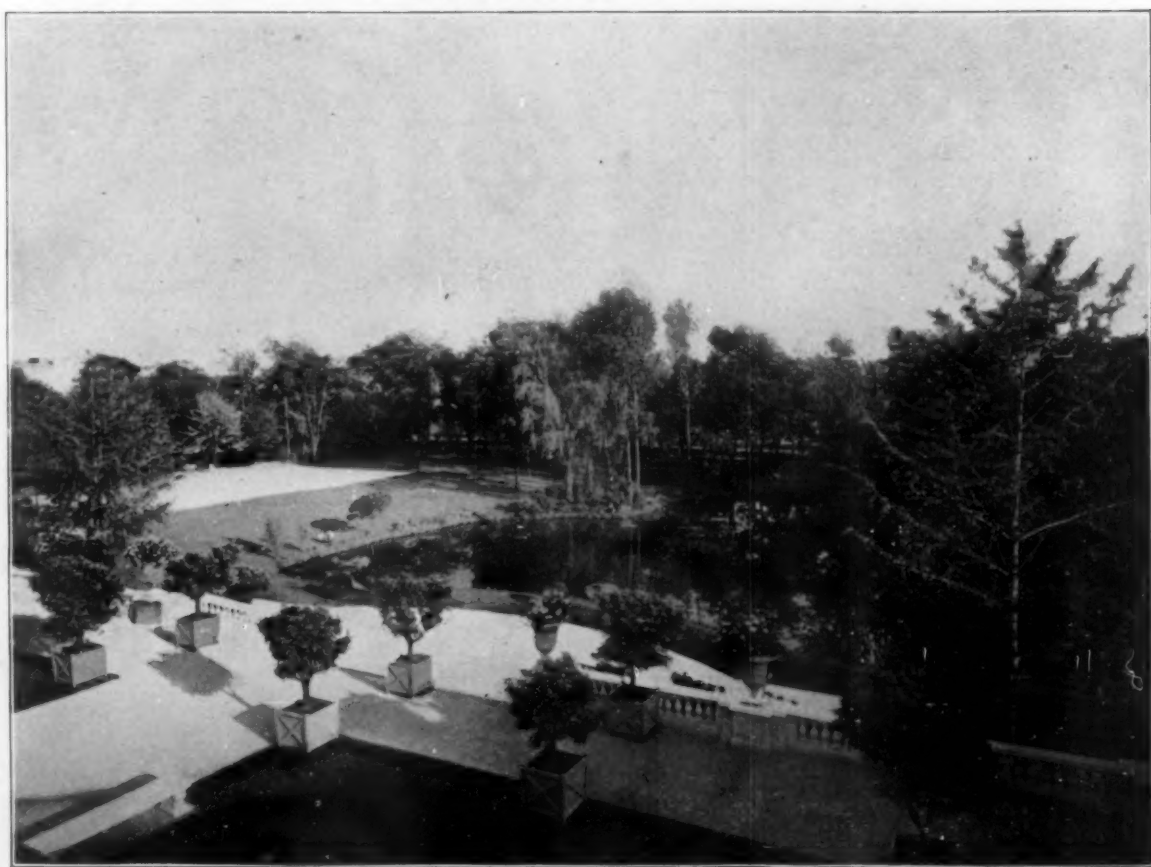
NORWOOD PARK—THE TERRACE



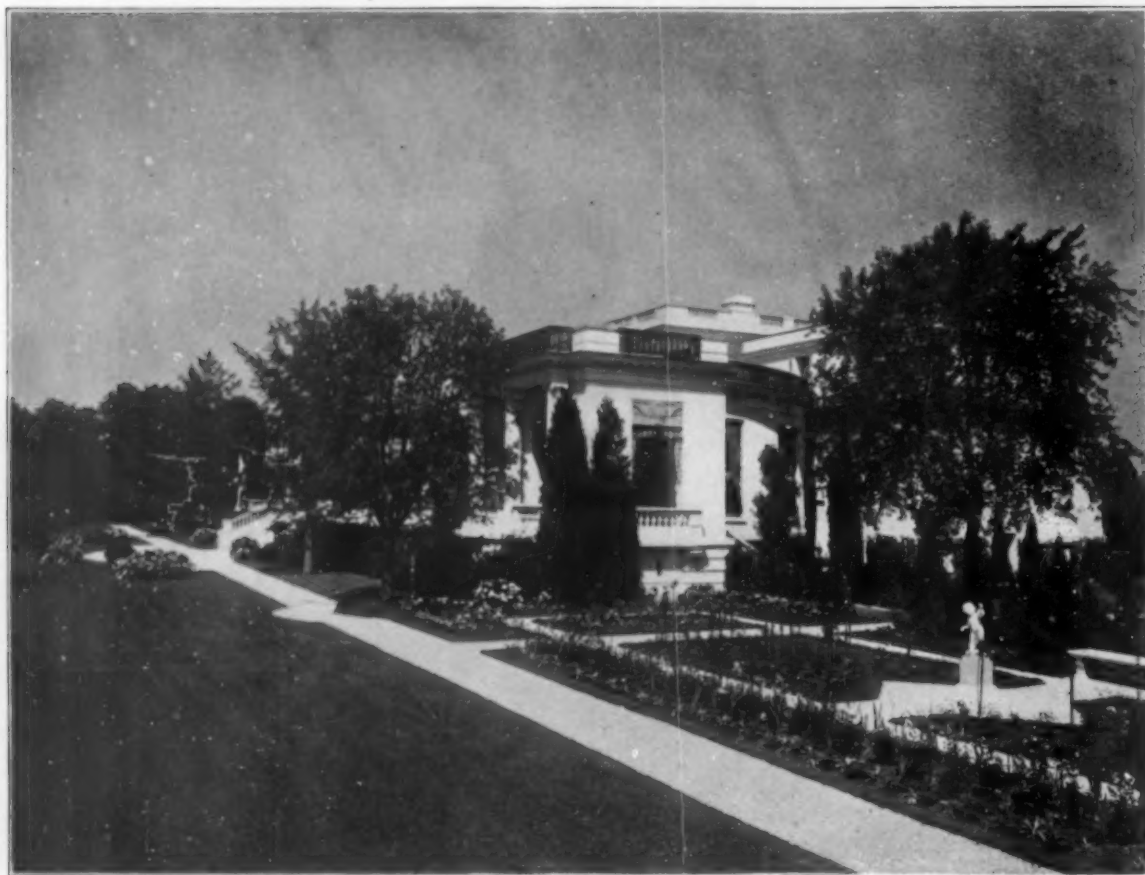
NORWOOD PARK—UPPER VIEW OF THE TERRACE



NORWOOD PARK—THE ENTRANCE FRONT



NORWOOD PARK—THE LAKE FROM THE TERRACE



NORWOOD PARK—A CORNER OF THE ITALIAN GARDEN



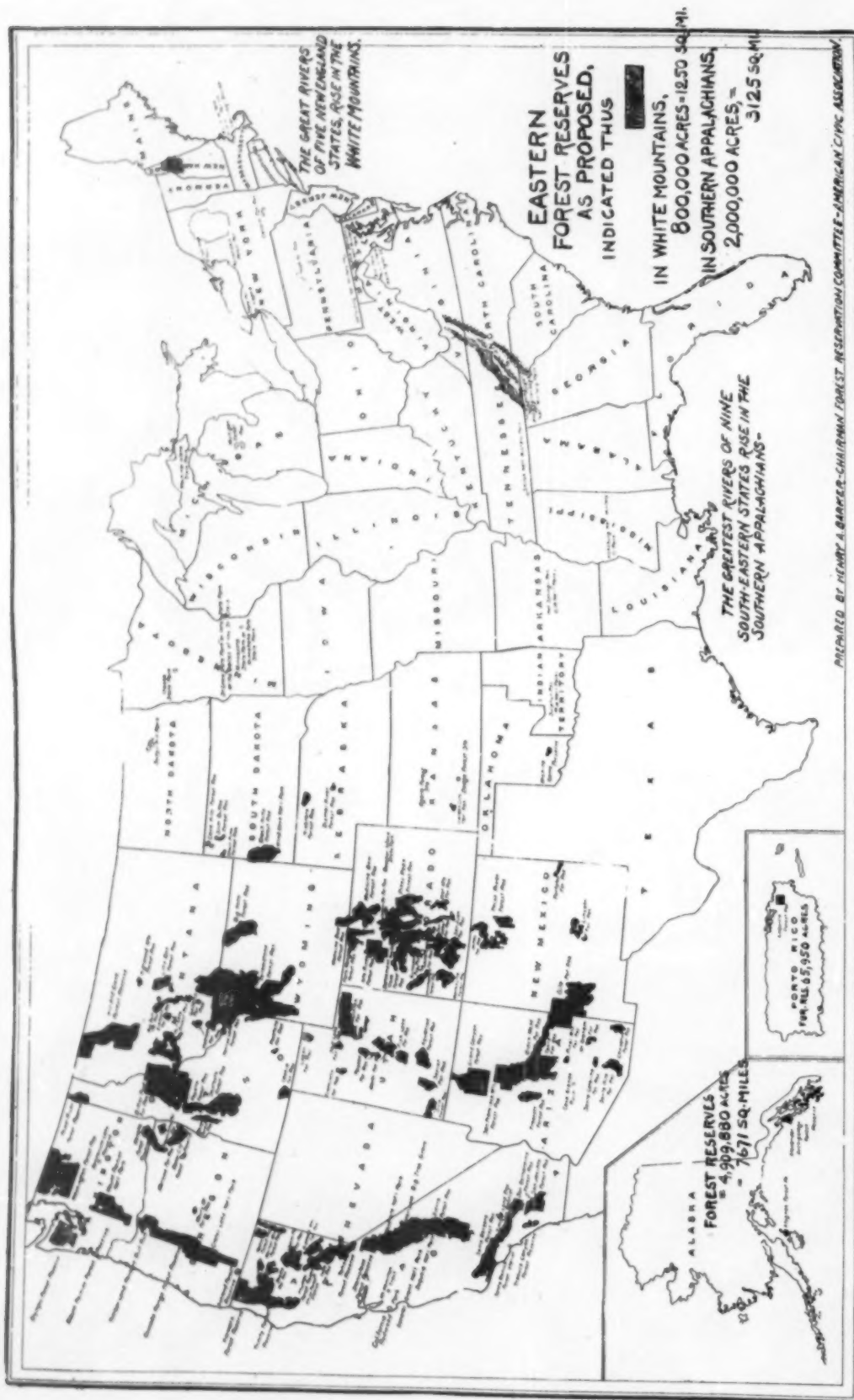
NORWOOD PARK—THE APPROACH TO THE HOUSE



NORWOOD PARK—THE FOUR SEASONS



NORWOOD PARK—THE ENTRANCE GATES



FOREST SERVICE U.S. DEPT. OF AGRICULTURE APR. 21, 1905

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A GRAPHIC MAP SHOWING THE PREPONDERANCE OF FOREST RESERVATION IN THE WEST AND THE MODEST DEMANDS OF THE EASTERN SEABOARD

CIVIC IMPROVEMENT NOTES

WAKING UP TO FOREST NEEDS

MR. Henry A. Barker of Rhode Island, who, as Secretary of the Metropolitan Park Commission of Greater Providence, has done so much to create a desire in Providence and the surrounding districts for an attractive environment is actively pushing the important project of an Atlantic Slope Forest Reservation.

A few days ago the Board of Trade of Providence passed a resolution earnestly favoring the enactment of such legislation by Congress as shall be needed to secure a national forest reservation in the White Mountains, and urging the Rhode Island delegation at Washington to lend their assistance toward the accomplishment of this purpose.

These New Hampshire forests have a considerable influence over the climate of all New England. They also make the White Mountains attractive as a summer resort; if they were cut down, the barren heights would be uninviting to tourists. Rhode Islanders in great numbers make annual visits to this delightful region, and thus any serious damage done to it would be a personal loss to them. Besides, considerable property there is owned by residents of Rhode Island. Upon the White Mountains much of the best timber to be found in New England is now growing, but if the present rate at which it is being cut continues, it will not be many years before nearly all that is of any commercial value will have been disposed of. If for no other reason than a desire to prevent the home supply of lumber from being exhausted, New Englanders who have occasion to use it should favor the establishment of a national reserve in the White Mountains. The adoption of scientific methods of forestry, which would come with Government control, would in the end mean less expensive materials for all the builders in this part of the country.

In one great service which the White Mountain forests perform for New England, Rhode Island is the only State in the group that is not directly interested. They form the storage reservoirs for great rivers that run into or along the border line of all the others. The Androscoggin and the Saco, which drain the whole southwestern part of Maine, are fed from the great New Hampshire forests. The Connecticut River, rising among them forms the border line between New Hampshire and Vermont for the entire length of these States and then enters Massachusetts to flow through such large and important manufacturing cities as Springfield and Holyoke, and later to run the width of Connecticut, not only supplying a vast amount of water power, but providing from Hartford to the Sound a highway for commerce.

Mr. Barker wrote to the City Engineer of Hartford not long ago, asking that official if the destruction of so many acres of the forest area of the White Mountains was not having an injurious effect upon the vol-

ume of water in the river at Hartford. The engineer replied that he had never given the matter much consideration, but he would make an investigation. As a result of his inquiries he found that there was a direct connection between the destruction of wooded districts in the New Hampshire mountains and the supply of water in the Connecticut at Hartford. The Board of Trade of the city took the matter up when this was discovered, urging the State representatives in Washington to do their utmost to see that the Government take charge of the White Mountain forests.

Senator Frank B. Brandegee of New London, Conn., is Chairman of the national committee on forest reservations, and he has received a vast number of letters favoring the plan to place the Government in charge of the timber sections in the White Mountains and also in the Appalachians. In aid of the more southern enterprise a bushel and a half of communications has reached him.

A glance at the accompanying map is sufficient to emphasize the great need of forest reservations in this part of the country. The black sections, showing the extent of these reserves, cover a large part of the Rocky Mountains, include national parks and occupy many other regions of a greater area than Rhode Island. Thus the West is assured of a large lumber supply for centuries to come. East of the Mississippi the map does not show even one dark section. New York has set aside vast tracks of the Adirondacks for a forest reserve of its own, and Pennsylvania has made several slight but encouraging efforts to a similar end, but throughout this wealthy and populous division of the nation the Government has done nothing toward protecting the fast disappearing forests.

The West already has 92,741,030 acres, or 144,908 square miles, in national forest reserves. Only 2,800,000 acres are asked for in the East, 800,000 acres, or 1250 square miles in the White Mountains and 2,000,000 acres, or 3125 square miles in the Southern Appalachians.

Valuable timber for building purposes, to put the question in the form of dollars and cents, is rapidly disappearing from the East, and if reservations are not established in the near future most of the lumber for this section of the country will have to be imported from the West.

It is here in the East also that the water power furnished by rivers is most widely used in manufactures. As forests act as storage reservoirs their destruction will greatly diminish the value of mill streams permitting dangerous freshets in the spring and extremely low water in times of drought. For this reason the protection of many millions of dollars worth of manufacturing enterprises depends upon the preservation of the wooded region in this thickly settled region east of the Mississippi.

House and Garden

The need of establishing a national forest reserve in the Southern Appalachians has recently been investigated with great care by the Department of Agriculture. As a result, official statements to this effect have been made. This region contains the highest peaks and largest mountain masses east of the Rockies. It is the great physiographic feature of the eastern half of the continent, and no such lofty mountains are covered with hardwood forests in all North America. Upon these mountains descends the heaviest rainfall of the United States, except that of the North Pacific coast. It is often of extreme violence, as much as eight inches having fallen in 11 hours, 31 inches in one month, and 105 inches in a year. The tree roots, mosses, underbrush and plants break the fall of rain drops, draw them into little reservoirs and give them out months later in the form of springs. Without the protection of forests the rain would tear up the soil and rush into the rivers where it would cause great freshets. In the season of drought even large streams would entirely dry up.

The soil, once denuded of its forests and swept by torrential rains, rapidly loses first its humus and then its rich upper strata, and finally is washed in enormous volume into the streams, to bury such of the fertile lowlands as are not eroded by the floods, to obstruct the rivers, and to fill up the harbors on the coast. More good soil is now washed from these cleared mountain-side fields during a single heavy rain than during centuries under forest cover.

The rivers which originate in the southern Appalachians flow into or along the edges of every State from Ohio to the Gulf, and from the Atlantic to the Mississippi. Along their courses are agricultural, water power and navigation interests, whose preservation is absolutely essential to the well-being of the nation.

Probably no region in the United States is better watered or better drained than this: nor is there any other region which can boast of being the source of so many streams. From about its northern end the New River (Kanawha) flows northward and westward and becomes a prominent tributary of the Ohio. Along its southeastern front the James, the Roanoke, the Yadkin, the Catawba, the Broad and the Savannah reach the Atlantic. Near its southern end the Chattahoochee and the Alabama flow directly into the Gulf of Mexico. Along its western the Hiawasse, the Tuckaseegee, the French Broad, the Nolachucky, the Watauga and the Holston drain westward through the Tennessee into the Mississippi.

The regulation of the flow of these rivers can be accomplished only by the conservation of the forests.

These are the heaviest and most beautiful hardwood forests of the continent. In them species from East and West, from North and South, mingle in a growth of unparalleled richness and variety. They contain many species of the first commercial value and furnish important supplies which cannot be obtained from any other region.

For economic reasons the preservation of these forests is imperative. Their existence in good condition is essential to the prosperity of the lowlands through which their waters run. Maintained in productive condition they will supply indispensable materials which must fail without them. Their management, under practical and conservative forestry will sustain and increase the resources of this region and of the nation at large, will serve as an invaluable object lesson in the advantages and practicability of forest preservation by use, and will soon be self-supporting from the sale of timber.

The agricultural resources of the Southern Appalachian region must be protected and preserved. To that end the preservation of the forests is an indispensable condition which will lead not to the reduction but to the increase of the yield of agricultural products.

The floods in these mountain-born streams, if this forest destruction continues, will increase in frequency and violence and in the extent of their damages, both within this region and across the bordering States. The extent of these damages, like those from the washing of the mountain fields and roads, cannot be estimated with perfect accuracy, but during the present year alone the total has approximated \$10,000,000, a sum sufficient to purchase the entire area recommended for the proposed reserve. But this loss cannot be estimated in money value alone. Its continuance means the early destruction of conditions most valuable to the nation and which neither skill nor wealth can restore.

The preservation of the forests, of the streams, and of the agricultural interests here described can be successfully accomplished only by the purchase and creation of a national forest reserve. The States of the Southern Appalachian region own little or no land, and their revenues are inadequate to carry out this plan. Federal action is obviously necessary, is fully justified by reasons of public necessity and may be expected to have most fortunate results.

HOUSE AND GARDEN CORRESPONDENCE

SUGGESTIONS FOR A BUILT-IN CORNER SEAT

Mrs. F. G. E. asks:

Will you give me a suggestion for a built-in corner seat in the living-room which is to be also used as a library. The standing wood work which is of chestnut has been treated with a dark greenish brown stain known as bog oak; this has a perfectly flat finish. I wish the seat to be of chestnut also, if it is necessary to have the wood show and I will have it stained and finished in the same manner. I also wish to have it cushioned and comfortable.

The room has a southern and eastern exposure. Perhaps it will be well to build some book shelves at the end of the seat if this will be practical. The walls will be covered with tapestry paper, like the sample I send you, showing green and brown on a tan color ground.

You will see from the sketch which I send you that there is a small casement window with square panes on one side near the corner where the seat will be.

I would like a suggestion for the draperies to use in this room.

The ceiling is tinted to the picture rail but the color is not at all satisfactory as it is a pale greenish blue, what can I do about it? I do not feel sure of the color that would improve this. Also, would you use curtains to the floor or to the sill.



CORNER SEAT IN LIVING-ROOM

I am publishing two sketches with suggestions for the seat which you desire; one of these shows the wood and is upholstered on back and seat; the other is entirely upholstered. Both have book shelves built within easy reach and these can be made quite a decorative feature of the room. In one sketch I have shown the window; this can have plain net or figured lace net drapery to the sill, and heavy draperies falling from the shelf above to the floor. The seat of chestnut, however, will be my choice for this room; this to be upholstered on back and seat and caught in with buttons; the fabric used to be green cut velvet. This velvet can be had in a shade which will harmonize perfectly with the green in your wall paper. The same material should be used for the heavy over draperies at your windows, and for door curtains; the price of this is \$2. a yard, and it is fifty inches wide. This fabric is particularly fitted for upholstery as it wears extremely well.



ANOTHER SUGGESTION FOR A CORNER SEAT

By introducing these plain masses of color in your room, with its decidedly figured wall paper, you will obtain a much more restful effect than by any other treatment. The ceiling should be tinted the shade of tan or *café au lait* shown in the background of paper. The warmth of color the room may require can be brought out in the bindings of books, and the rich crimsons of Oriental rugs which you should use.—MARGARET GREENLEAF.

UNFINISHED FURNITURE

Miss H. of Philadelphia, writes:

I am anxious to obtain the address of the dealer carrying the unfinished furniture of which you speak in some of your recent articles.

It will give me much pleasure to supply you this address if you will send me your own. It is not possible to mention the names of firms in these columns. I will be pleased to send this to you immediately upon receipt of a self-addressed envelope. This will also apply to H. L. of Conn. and "A Man."—MARGARET GREENLEAF.

ROSA SPINOSISSIMA

Unusual interest has been awakened among our readers by Mr. Egan's article on the above rose. The two following inquiries are typical and we have asked Mr. Egan to supply the information desired, which is printed below.

I was much interested in your photo and description of *Rosa Spinosissima* in March number of "House and Garden"; and have been vainly looking through all the nursery catalogues, I could lay my hands on, for it.

If you would inform me where this rose can be bought I would deem it a favor.

C. L. R.

I notice that you have recommended the rose *Spinosissima Alba*, var. *Altaica* a number of times, as a desirable substitute for the tender Cherokee. We are very anxious to secure the

House and Garden



ROSA SPINOSISSIMA, EGANDALE, 1905

name, and have written to the leading rose growers within our knowledge, but have failed to secure any trace of the rose. We have a fine hardy garden, but have to contend in our location with great ignorance of hardy plants. The florists claim that there is not sufficient demand to justify the time and care for their propagation. If you could give me the address of any firm where I could secure this rose, I would deeply appreciate it. I know that you must be a busy man and are no doubt much annoyed by similar requests, but we would deeply appreciate the courtesy.

We are expecting to pass through Chicago in July or August and desire to ask you whether we might have the privilege of looking at your grounds. We are in a way familiar with them from various magazine views and articles, and have been deeply interested. This question of a hardy garden is an absorbing one to us, and one that presents many difficulties in a city where tender bedding plants are the rule. We have striven for years to secure a really worthy collection of shrubs and plants but feel that our garden is still in the embryo. We hope, my wife and I, not to annoy you in any way, but you have indirectly been such a help in the past, that we have presumed to ask this favor.

C. B. S.

Rosa Altaica is listed in the catalogue of the Elliott Nursery Co., German Nat. Bank. Bldg., Pittsburg, Pa. Mr. Elliott is not one to overpraise the virtues of any plant, and his extensive explorations among the European nurseries give unusual opportunities for the observation of everything cultivated, yet he describes this plant as "one of the loveliest roses in cultivation" and again says "no description can do justice to this rose." This is true in part of his description where he says, "large, single, yellowish-white flowers produced in the greatest profusion."

I would call them paper white. In a catalogue issued some years ago by the Reading Nursery, Reading, Mass. under the misleading name of *R. grandiflora*, it is described as having "light green and finely cut foliage, and large, purest white flowers. About the same time the Shady Hill Nursery Co., Boston, had it as a novelty, and again under the name of *R. grandiflora* describing it as follows—"The flowers are pure white and are the largest of the single roses being nearly four inches across. I have seen a catalogue issued since the above by one of these houses where the proper name "*Altaica*" is given to it.

W. C. E.