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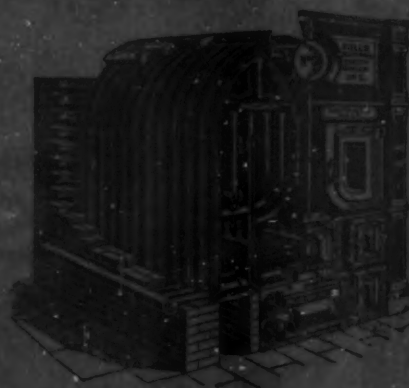
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THE FLOWER GARDEN, "SEVENOAKS"

# House & Garden

Vol. II

APRIL, 1902

No. 4

## AN ARCHITECT'S GARDEN

AND THE MAKING OF IT.

ON first going to live in the country—a word which in our case was merely a euphemism for the suburbs—we had to face the common problem of making tolerable, the bit of ground that fell to our share. The house was rather more attractive than

are those usually built near Philadelphia to be rented to "home-seekers." It had the advantage of large trees about it and a vacant lot beside it. Stimulated by a desire to have a garden, and having chanced on an owner willing to have his land used for one, it was arranged that the vacant lot should be covered by the lease. Altogether we had just an acre. It was autumn when we moved into the house. The great trees were no longer green, and though evidently oaks their exact sort was not easily made out. A few clinging leaves and fallen acorns gave the clue by which we

found them to be black oaks—*Quercus velutina*. As there were just seven of them, all in their prime, what was more obvious than that the place, since it lacked a name and even a number, should be called "Sevenoaks."

The winter evenings were spent in making sketches for a garden. The place for it was a

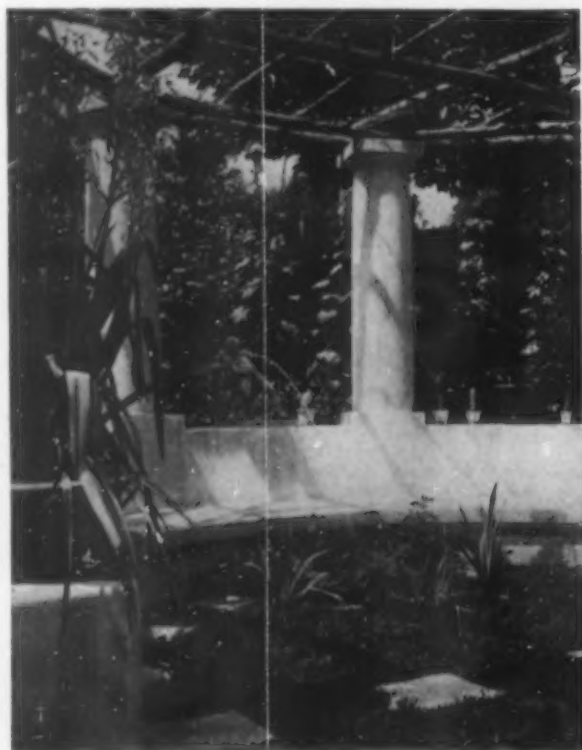
roughish hillside with a southerly exposure. It had a fall of twenty feet from its upper limit to the street. At the back there was a fence covered with honeysuckle; in front, were the oak trees, and some sweet-gums, a cherry and a dogwood. To the eastward

there had once been a fence-row, and in its place stood a line of old red cedars. Curiously enough,—and this was the key to the plan of the garden,—on looking directly out of the central window of the dining-room, the largest of these cedar trees stood in the line of vision. A mere accident, to be sure, but if the house had been placed with the sole end of putting this fine old tree exactly upon the axis, it could not have been done with greater precision. Obviously, the right thing to do was to lead a straight path along the hillside from the window to the tree.

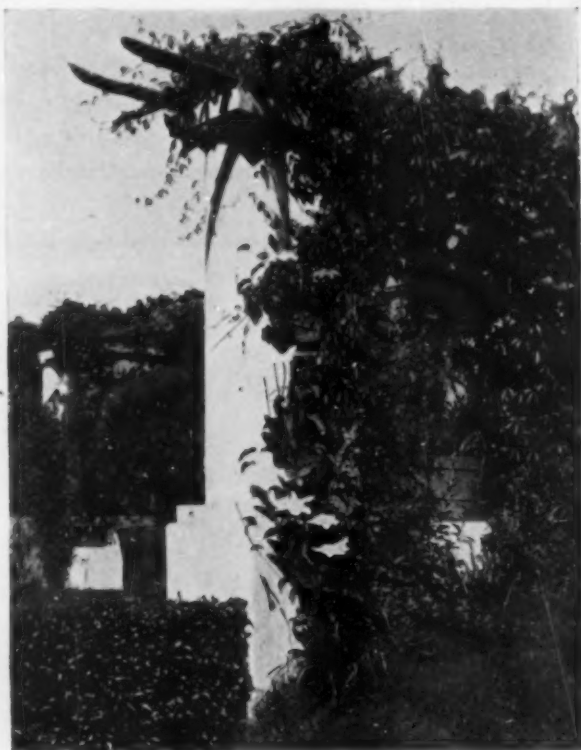


THE FAUN WITH THE WINE-SKIN

Since the shadows of the oaks and gum trees would reach, even in midsummer, quite up to the path, it was evident that the flower garden should be above it. This was fortunate, for there the hillside was less steep than lower down under the trees. Even above the path there was but scant choice



THE EXEDRA



A COLUMN AND CLEMATIS

in the placing; for if put far to the westward, the house would cast a shadow on it in the afternoon, and if to the eastward, the cedars would shade it in the morning. The central line of the flower garden evidently had to run up the hill at a right angle with the long path, and its exact place was determined by two gum trees that stood apart from the rest and offered a pleasant ending to the vista on looking down.

It was to be a formal garden, — that went without saying. Training, inclination, sentiment, reason, all dictated it. And so our straight path was to be bordered by a well clipped hedge. The flower garden, for which a space was to be

levelled just above the path, took the form of a square, which we hoped some day to see enclosed with a wall of green. The ground rose above it to a spot from which everything looked its best; and if there were to be a shady nook from which to look out over the whole, that was evidently the place for it. Since it was also the end of the cross axis, there, if anywhere, should be some modest

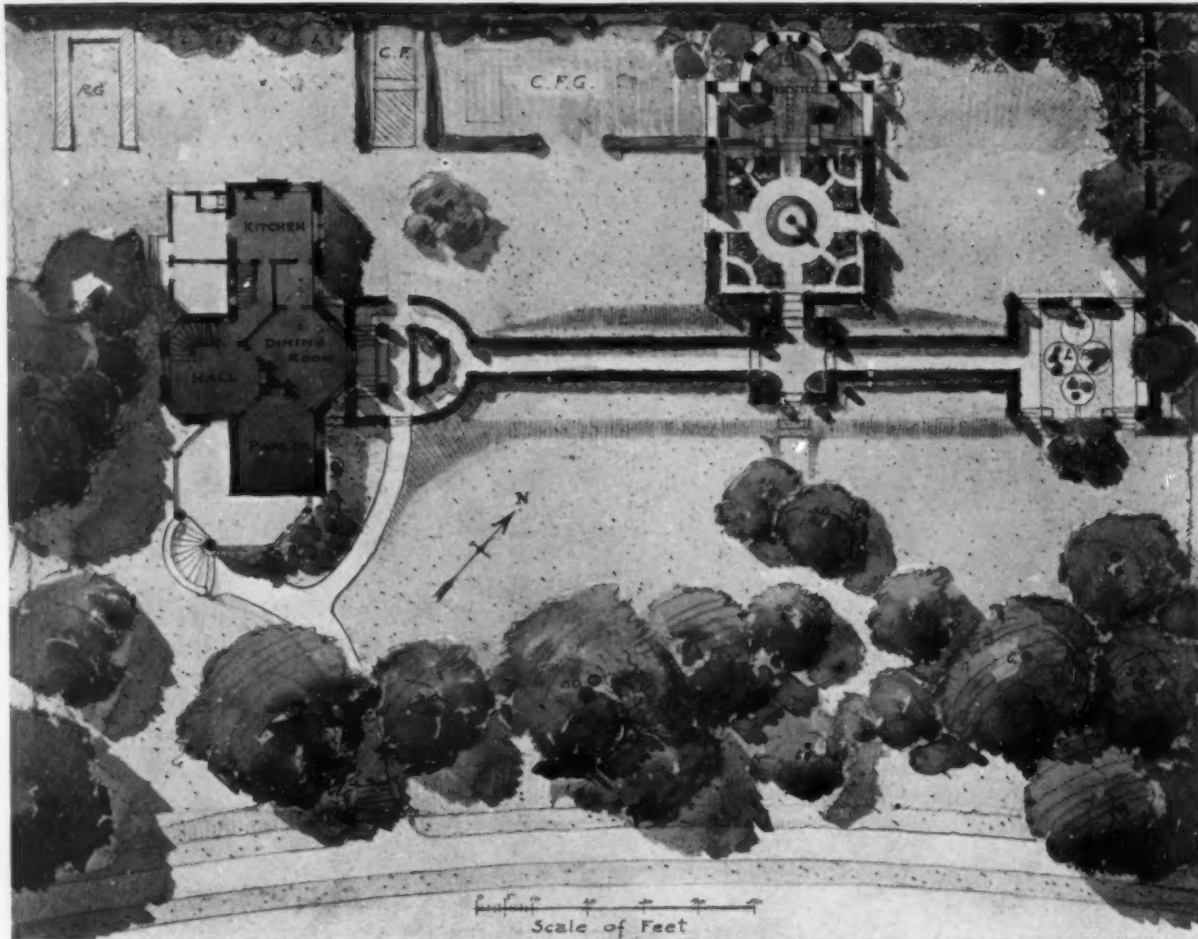
bit of architecture suited to an unpretending formal garden. So it came about that a curved seat, with simple columns bearing a trellis was designed for it. When March came our ideas had crystallized and our plans were ready. Then we set to work. The curved seat and



THE PATIENT FISHERMAN

its walls and columns, all of concrete, were soon made and plastered *al Italiano*. Terraces were levelled off; paths were laid down; and privet hedges set. In a month we were ready to put in phlox, larkspur, foxglove, bleeding-heart and the rest of the old-fashioned things

the growing things had made themselves at home than we had thought possible. The view of a part of the exedra taken but four months after the work was started, shows how willingly nature had lent a hand in the garden-making. Determined not to be with-



THE PLAN OF "SEVENOAKS," UPSAL, PHILADELPHIA  
THE GARDEN OF MR. FRANK MILES DAY

- |                            |                  |
|----------------------------|------------------|
| C. F.—Cold Frames          | C.—Cherry Trees  |
| C. F. G.—Cut-Flower Garden | B. O.—Black Oaks |
| L. P.—Lily Pools           | D.—Dogwood       |
| M. B.—Mixed Border         | H.—Hemlocks      |
| R. G.—Rose Garden          | R. C.—Red Cedars |
| L.—Lilacs                  | S. G.—Sweet Gums |

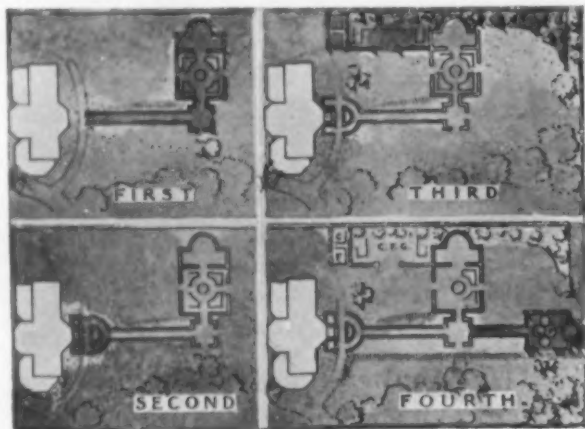
that were to grow within the box-bordered beds. Wild grape-vines were brought from the woods near by, and were started up the columns. Spice bushes and hollyhocks formed a screen at the back; and a kodzu vine throve so mightily that by the end of summer we could sit beneath the shade of the pergola, quite shut in on all sides save the south, towards which we looked with no little satisfaction at seeing how much more quickly

out the sound of running water, we pressed into service reproductions of two bronze fountain-figures, found at Herculaneum. One of these, a rollicking faun, was put at the back of the exedra, so that the stream pouring from the wine-skin under his arm falls into a pool hidden among iris leaves and king-fern. The water soon reaches the second fountain, where a patient fisherman presides over a marble basin that once

adorned the mansion of the worthy Dr. Rush.

In those first months we made as much of the garden as we set out to build, but the straight path from the house ran only

straight from the house to the garden. But steps—if of marble—are costly things; why not then follow the same method with these as with those already in the garden,—buy old ones? Or, better yet, why not find



THE GARDEN'S FOUR STAGES



THE PERGOLA FROM THE HOUSE

to the lower square garden, where grape-hyacinths and columbines filled the corners in the spring, where coreopsis made summer gay, and where the year ended with the glow of dwarf chrysanthemums. It was a trial to look out from the dining-room balcony at so pleasant a place, and yet be unable to reach it except by the front door and a walk around a crooked path. How pleasant it would have been to have had some steps

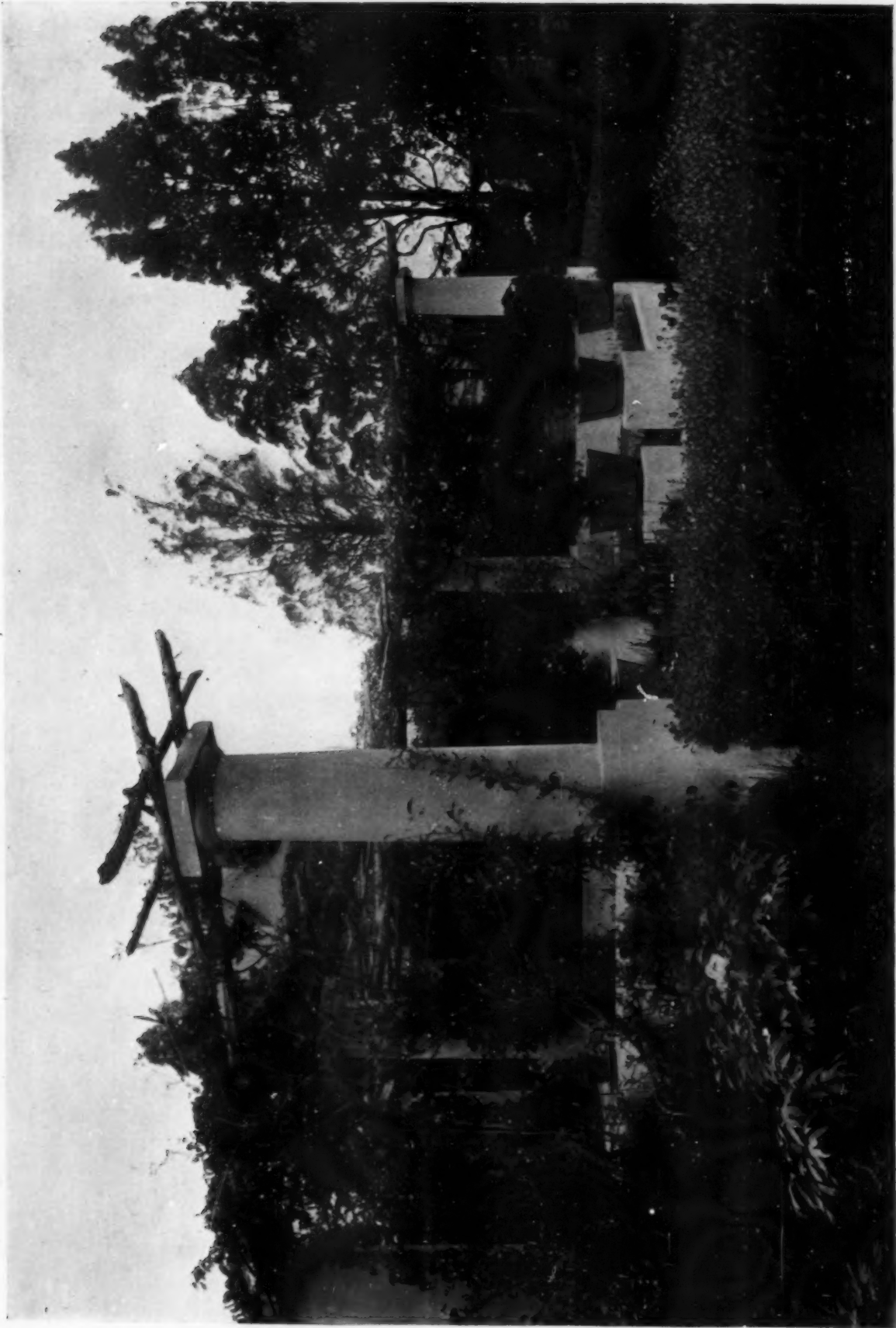
a place where old houses were being torn down, and offer to take the steps away? No sooner said than done. It chanced that a great double flight, of years gone by, with its honest wrought-iron railing, fell to our share. The wrecker seemed glad enough to have the steps taken off his hands, if we would but pay for the hauling, and we were glad enough to get them on such terms. It took some little ingenuity to fit them to



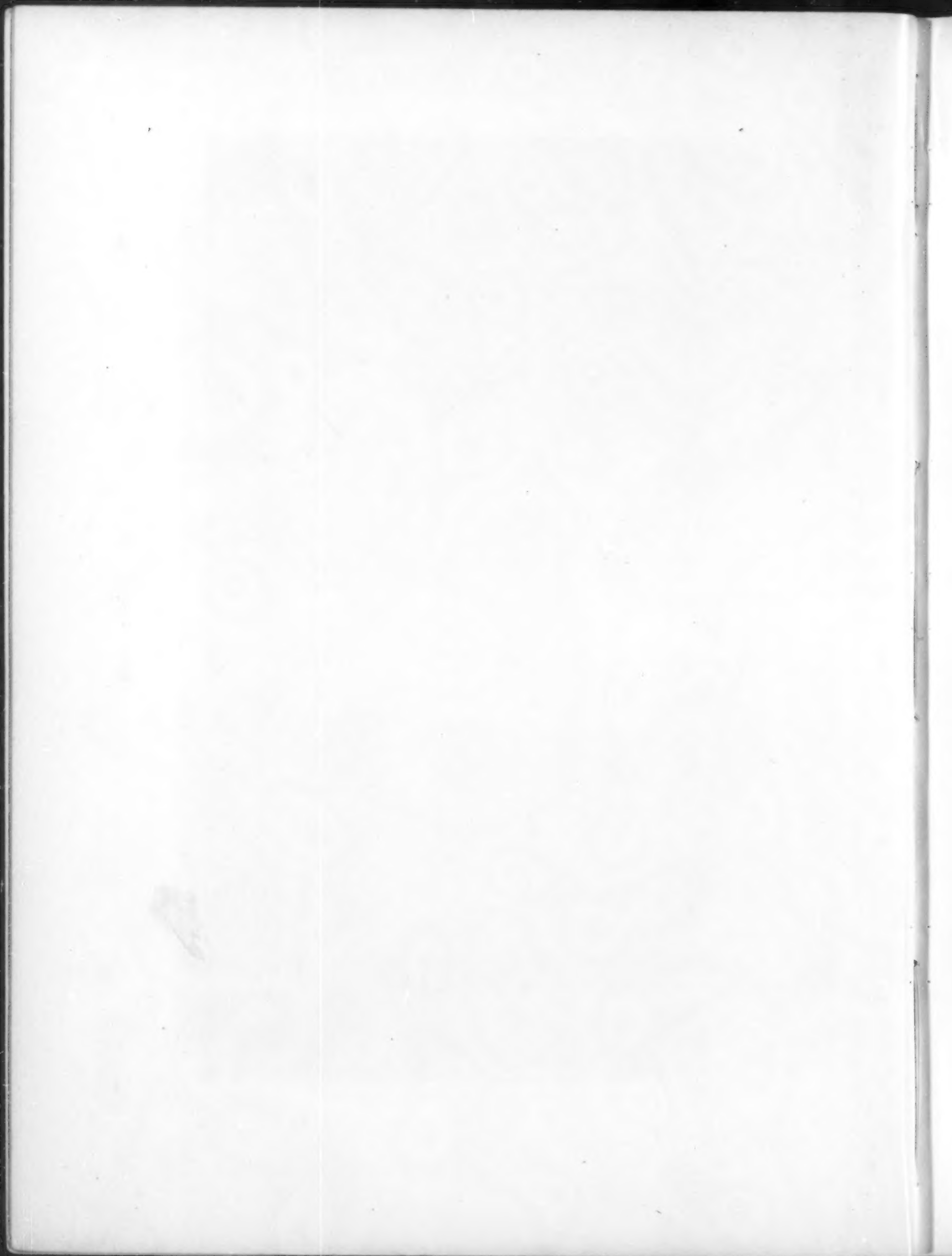
BLUE FLAGS IN MAY

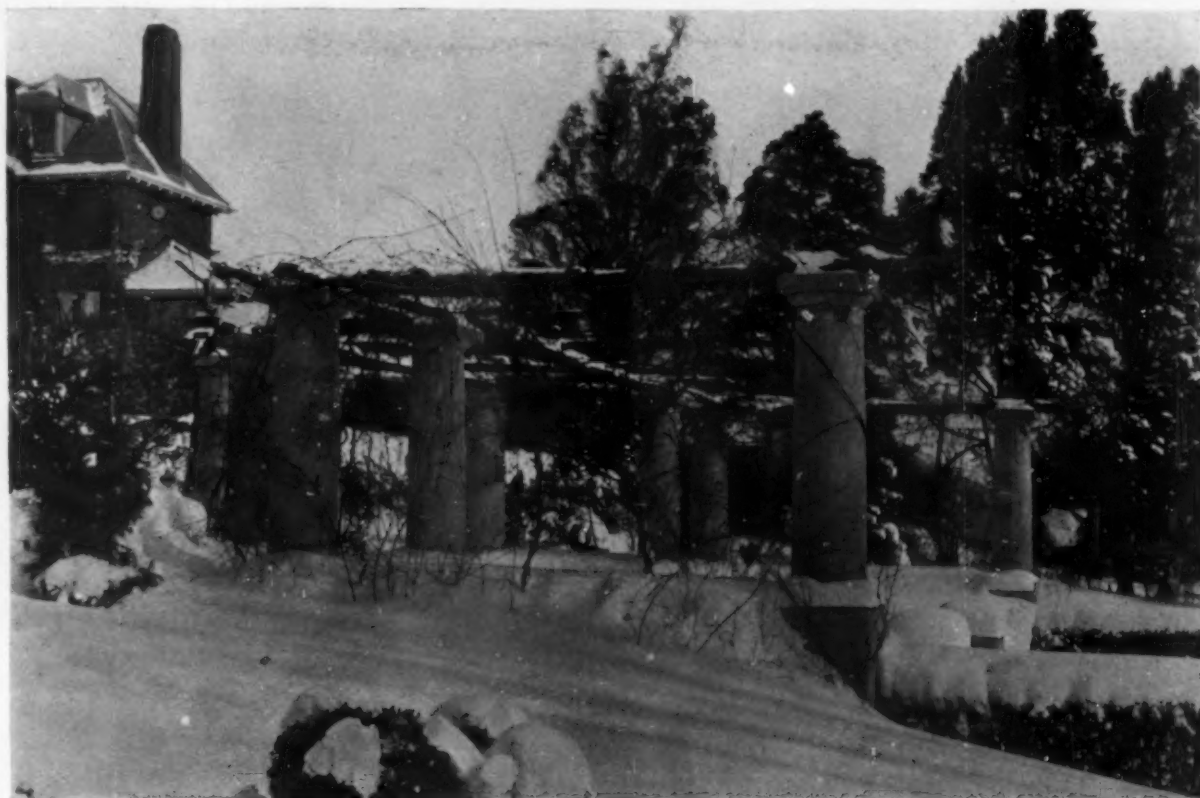
"SEVENOAKS"





THE PERGOLA IN SUMMER, "SEVENOAKS"





THE PERGOLA IN WINTER

"SEVENOAKS"



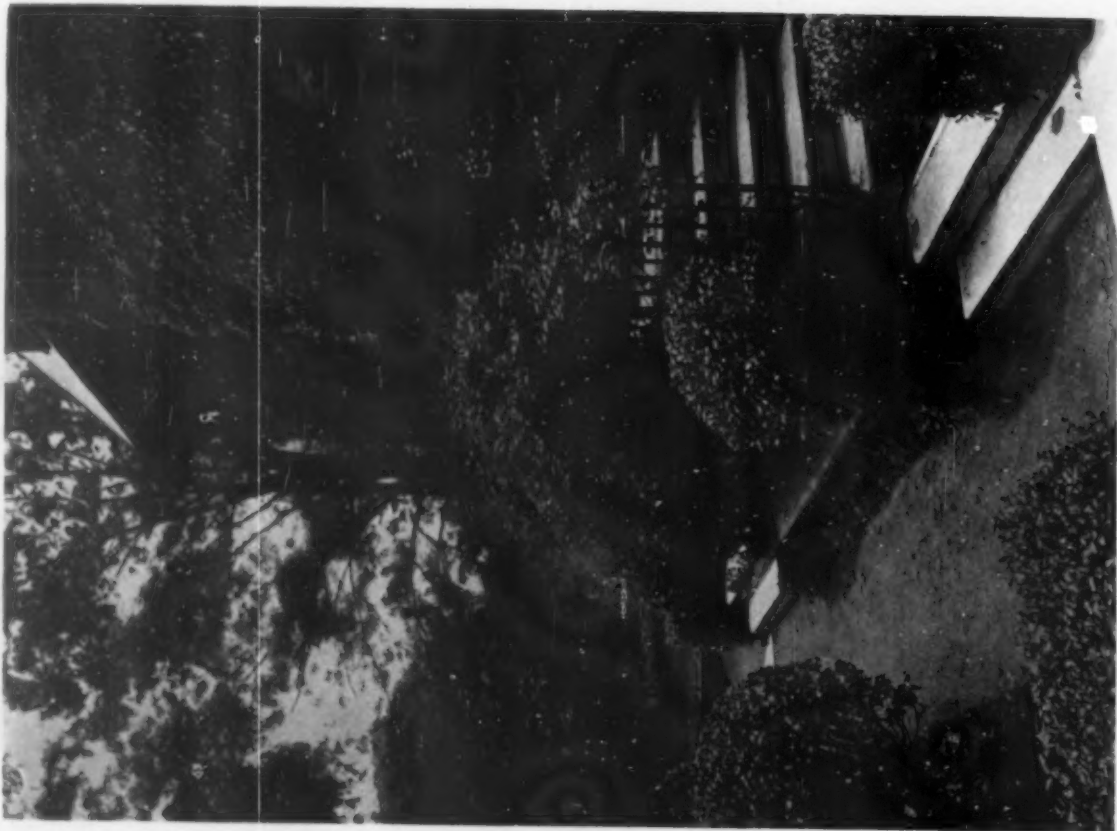
FROZEN RAIN

"SEVENOAKS"

*An Architect's Garden*



THE GARDEN ICE BOUND



THE OLD STEPS IN THEIR NEW PLACE



ABOVE THE LILY POOLS



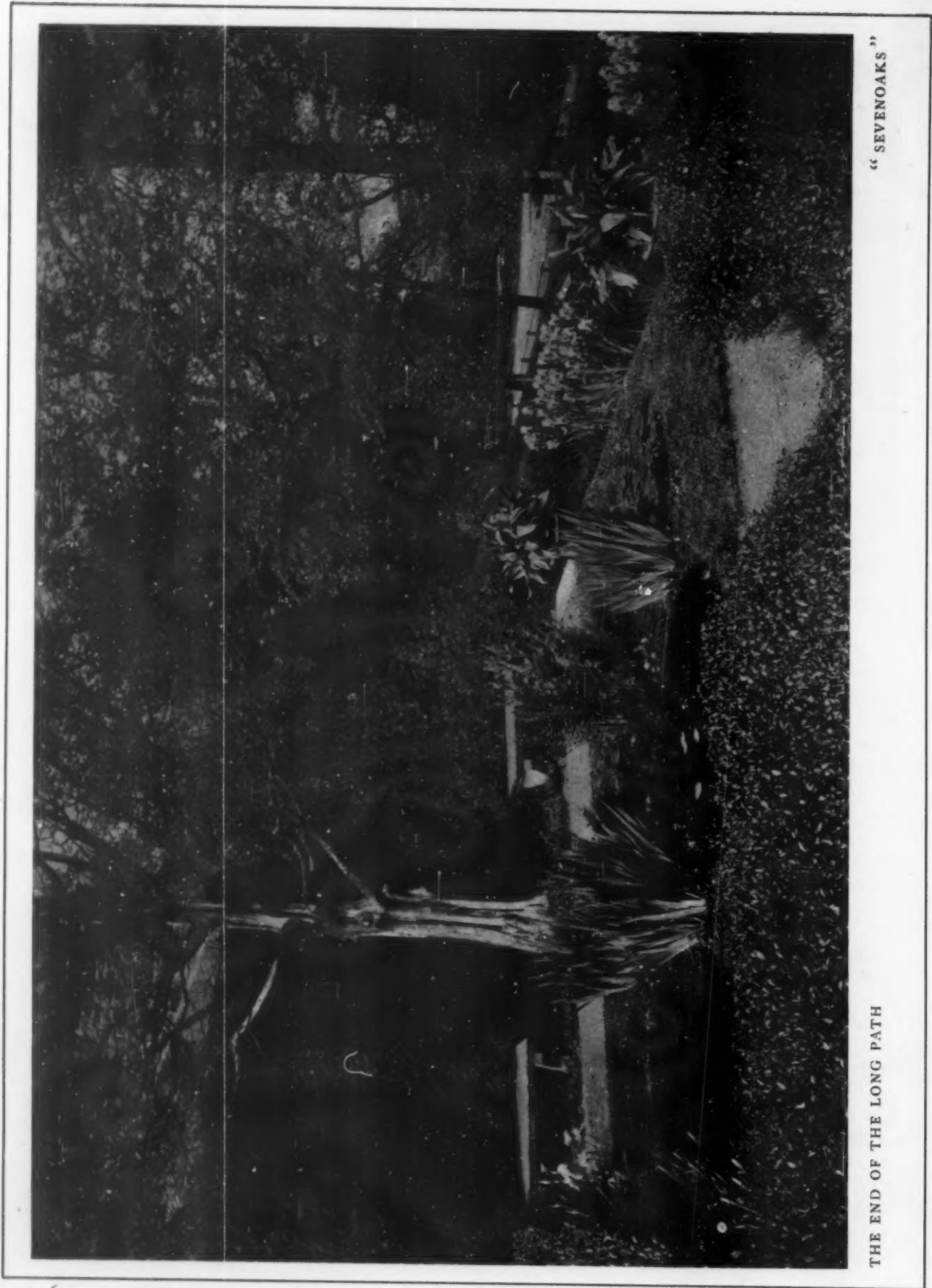
ONE OF THE OAK TREES

their new surroundings. The old slab of the balcony had legs put under it, and thus made a good seat. A curved path joined the two flights to the long walk, and a semicircular fern bed, with privet trees clipped as spheres, finished this part of the garden.

Though we cared much for the design of the garden, we cared even more for the things that grew in it, so that the space allotted to flowers, some thirty feet square, soon proved quite too small for the many plants that we wanted to have growing near us. At the top of the slope and to the west of the exedra a space was enclosed for a reserve garden, where we might grow flowers for cutting. To the eastward of the exedra a great bed of rather irregular form was dug, of which the part at the top of the hill was open to bright sunlight while the rest of it, near the cedar trees, offered such shade as lilies and many other things require. This bed is a genuine "mixed border." Its glory in April is the mat-like *Phlox subulata*—white and pink; in May the stately garden tulip, *Gesneriana*; in June a great patch of old-fashioned orange lilies, with sometimes as many as fifteen hundred flowers in a single

season; in July it is gay with *Lythrum*; in August the flame-like flowers of the butterfly-weed outshine all else; September crowns with yellow the stately clumps of *Helianthus rigidus*; in October innumerable asters are still in bloom; and in November many kinds of hardy chrysanthemums make the great bed the Mecca of our garden pilgrimages.

In spite of all that we had done, the garden had an air of incompleteness. The long path, the very foundation of the scheme, had failed to reach its goal. Then, too, we had no place for water-plants. So, after awhile, we set out to remedy both defects at a stroke. A hedge of tall *Arbor-vitæ* was put about the cedar tree, the more definitely to end the vista down the path. Not wishing to be at the expense of building a lily pond, a pair of disused casks, of heavy oak strongly bound with iron hoops, were bought at a brewery. When sawn in half, these casks made four admirable tubs, each eight feet across and three feet deep. Sunk in the ground, with the grass coming up to their rims, nothing could better suit the purpose. The overflow of the central fountain



"SEVENOAKS"

THE END OF THE LONG PATH



"SEVENOAKS"

THE IRISES BELOW THE LILY POOLS



AFTER THE ICE STORM



THE WRECK OF THE RED CEDAR

falls upon their surface in a gentle stream from the lips of a grape-crowned satyr, beside whose face a host of golden daffodils toss their heads in sprightly dance. In two of them the lotus thrives, putting up leaves two feet or more across. In due season come buds that remind us of the Nile, and soon open into stately flowers, pink and white, ending at last as seed vessels, reminiscent of Japan. The other tubs are brilliant with the splendid flowers of the *Nymphaea*,—white, scarlet, sulphur and blue,—from early summer till the coming of the first frosts. On the little islands between the tubs, the three *Osmundas* find congenial dampness, and even the marsh-marigold and the pitcher-plant do not refuse to blossom. Near by *Iris pseudacoris* throws up its yellow flowers in summer, and curls open its curious pods in autumn. The overflow from the tubs is arranged to feed the roots of a goodly bed of flags, where the sorts from Germany, Siberia and Japan give us a succession of great masses of blossom, the gayest in the whole garden.

The tiny stream, scarcely an eighth of an inch in thickness, that enters the garden by

falling from the wine-skin into the upper pool has yet another duty; for below the iris bed is one of splendid rose-mallows, brought from Jersey marshes, and massed with low hydrangeas. For all of these the stream furnishes a welcome moisture before it sinks at last into the ground.

The cautious are prone to ask whether it was wise to make what they consider so elaborate a garden on a piece of land that is not our own. The answer is not far to seek. The thought and labor spent in making it were good in themselves and their result has been, winter and summer, a never-ending pleasure. In the knowledge of garden design, gained in working out our problem, and in the knowledge of garden-craft that comes from planting and tending many kinds of growing things, we have already had more than an equivalent for our pains.

Our good friends, by sending of their best, have helped to stock the garden; but even better than the gifts of friends are the treasures brought home from many an all-day tramp in the woods or pleasant journey to the ever-fruitful Jersey. Bloodroot whitens



a corner in the spring; the rock-loving columbine, from over the Schuylkill, grows in the rich loam to twice its usual size; Dutchman's-breeches comes up year after year; *Helonias bullata*, that strange bog-loving herb, now banished from among the lilies, unfaithfully puts up its purple flower-head in May, but its first cousin, Turkey-beard, feels scarcely at home even in the driest part of the garden, and threatens to die out. The rattlesnake-plantain and the showy orchis live on in a hidden corner, while *Veratrum viride* unfolds its plaited leaves unfaithfully each spring. It is a keen pleasure to see the native wild flowers holding their own so well; to see each colony increase from year to year; and to be reminded each spring of last summer's pleasant holidays by the appearance of new sorts of wild flowers in the garden.

Gardens have their good fortune and their bad. Ours has just past through a time of trial. Not many days ago, a frozen rain, the like of which is not within the memory of

man, enshrouded it. The continuous down-pour, freezing as it fell, encased in thick ice everything it touched. The slenderest twigs were at least an inch in thickness. Boughs were enveloped in a weight of ice fifteen or twenty times their own. No trees, save the white oaks, proved equal to such a load. By noon, boughs began to fall; and with increasing frequency the crashing sounds were heard, till night-fall, when the rising wind worked such havoc and destruction as nature will fail to repair in many a year. The trees in our garden suffered less than many others, yet the black oaks lost their topmost branches—even great limbs eight inches thick. The old red cedar is but the wreck of its once shapely self. For two days, rain and ice; then on the third, the sun

rose clear and bright. It was a fairy scene that lasted but an hour, yet the enjoyment of its beauty was impossible for a mind heavy with sorrow for those

“Bare ruined choirs, where late the sweet birds sang.”

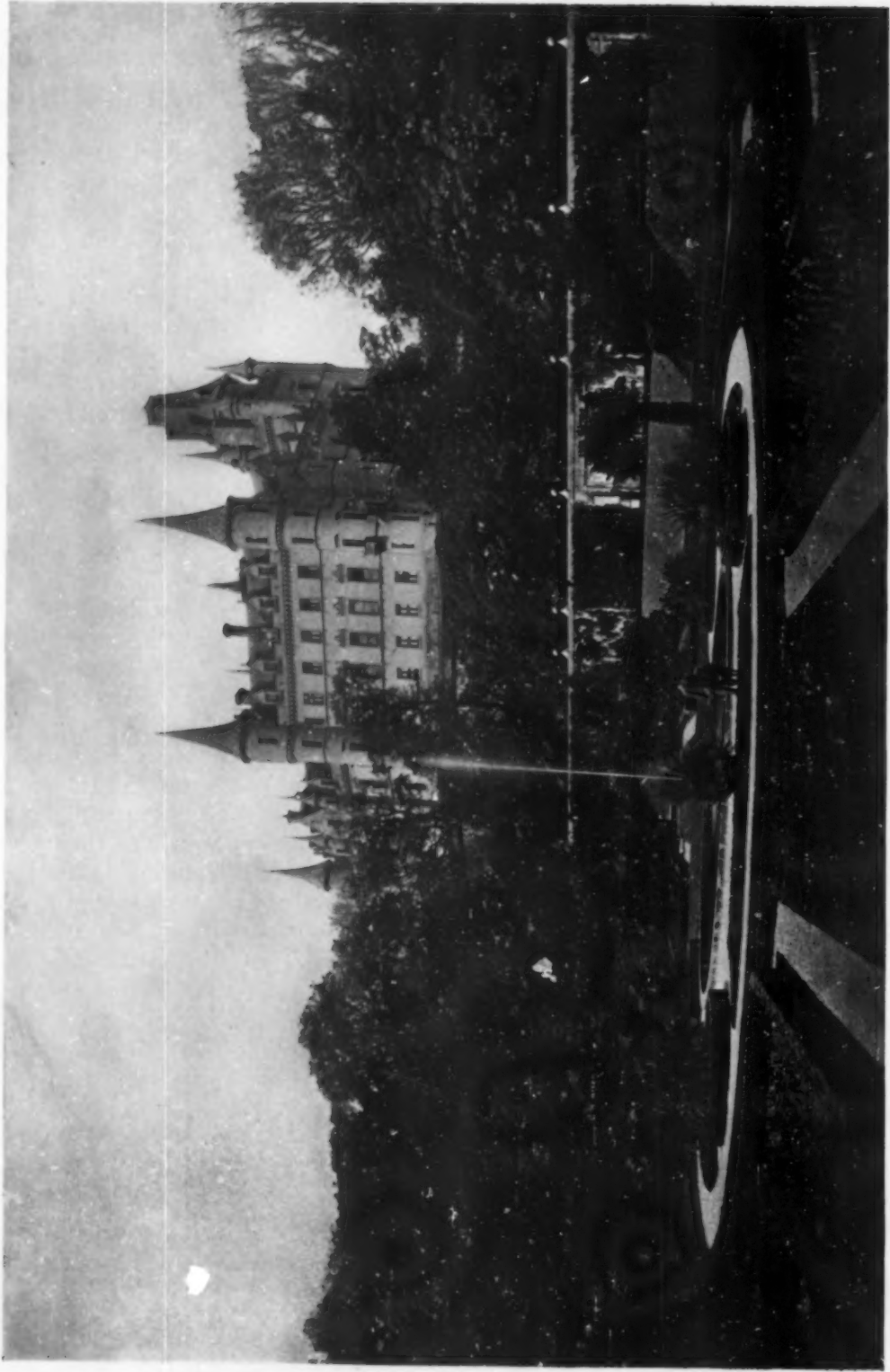
*Frank Miles Day.*



DRIFTED SNOW



A CONTEMPLATIVE SATYR



THE GARDENS OF DUNROBIN CASTLE

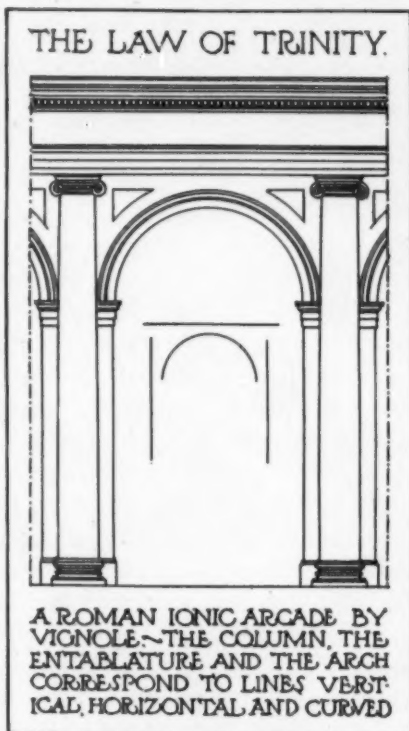
LAWS OF BEAUTY.<sup>1</sup>

THE preceding essay was devoted to the consideration of polarity in nature and art,—that “inevitable duality” which, attaining its supreme expression in the sexes, masculine and feminine, is everywhere symbolized in countless pairs of opposites: in nature by fire and water; in music by a chord of suspense,—a partial dissonance, and a chord of fulfillment,—a perfect consonance; in architecture by the column and the lintel, and so on. This conception should now be modified by another, namely: that in every duality a third is latent; that each sex is in process of becoming the other; and that this alternation engenders and is accomplished by means of a third term, or neuter, which partakes of the nature of them both, just as a child may resemble both its parents. Earth is the child of fire and water. In music, besides the chord of longing and striving, and the chord of calmness and satisfaction, there is a third, or resolving chord in which the two are reconciled. In architecture, the arch, which is both weight and support, and is neither vertical or horizontal, may be considered the neuter of which the column and the entablature are respectively masculine and feminine.

The application of the column and entablature to an arch and impost construction, familiar in Roman and Renaissance architecture, is a redundancy, and finds no justification in the reason, yet the sense of beauty is satisfied, because the arch forms a transition between the columns and the entablature and completes the trinity of vertical, horizontal and semicircular lines.

Three is preëminently the number of architecture, because it is the number of space, which is three dimensional; and architecture of all the arts is most concerned with the expression of spatial relations. The division of a composition into three related

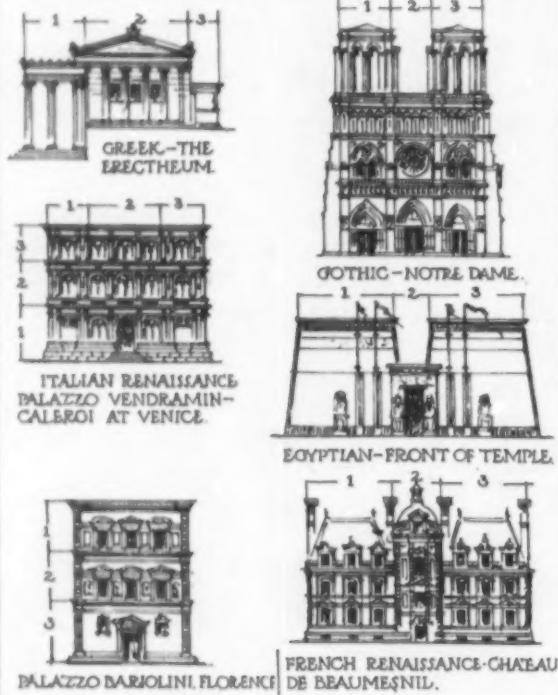
parts is so universal that it would seem to be the result of an instinctive effort of the human mind. The twin pylons of an Egyptian temple, with the entrance between, for a third division, correspond to the two towers of a Gothic cathedral and the intervening screen wall of the nave. In the palaces of the Renaissance a threefold division, obtained vertically by means of quoins or pilasters, and horizontally by means of string-courses, was very common, as was also the division into a principal and two subordinate masses. The orders are divided threefold into pedestal or stylobate, column and entablature; and each is again divided, the first into plinth, die, and cornice; the second into base, shaft, and capital; and the third into architrave, frieze, and cornice.



in a more extended sense, in the repetition of a major theme in the minor, or in the treble, and again in the bass, with modifications also of time and key. Such recurrences, such inner consonances, are common in architecture also. The channeled triglyphs of a Grecian Doric frieze echo the fluted columns below. The balustrade which crowns a colonnade is a repetition, in some sort, of the colonnade itself. The modillions of a Corinthian cornice are altered and elaborated dentils. Each

<sup>1</sup> The fourth of Mr. Bragdon's series of articles entitled:—"The Beautiful Necessity: being Essays upon Architectural Esthetics," begun in the January number of HOUSE AND GARDEN.

THE LAW OF TRINITY: A THREEFOLD DISPOSITION OF THE PARTS OF A BUILDING



pinnacle of a Gothic cathedral is a little tower with its spire.

Ruskin says, in *Stones of Venice*, "All good Gothic is nothing more than the development, in various ways, and on every conceivable scale, of the group formed by the pointed arch for the bearing-line below, and the gable for the protecting line above: and from the huge, gray, shaly slope of the cathedral roof, with its elastic pointed vaults beneath, to the slight crown-like points that enrich the smallest niche of its doorway, one law and one expression will be found in all. The modes of support and of decoration are infinitely various, but the real character of the building, in all good Gothic, depends on the single lines of the gable over the pointed arch endlessly rearranged

and repeated." In classic architecture, instead of pointed arch and gable, it is the column and entablature which constantly recurs. Every vertical member should have something to correspond with base, shaft, and capital, and every horizontal something to correspond with architrave, frieze, and cornice.

This law of consonance is more obscurely present in architecture in the form of recurring numbers,—identical geometrical foundation figures, parallel diagonals, and the like. It has to do also with the style and scale of a building,—the adherence to substantially one method of construction and one manner of ornament throughout, just as in music the key, or chosen series of notes, may not be departed from except through proper modulations.

Another principle of natural beauty which finds frequent illustration in architecture, particularly in that of the Byzantine and Gothic styles, is that of diversity in monotony: a perceptible and piquant difference between the individual units belonging to a single type or species. No two persons look exactly alike, though they have similar members and features, no leaves from the same tree are quite identical.

The metopes of the Parthenon frieze, seen at a distance, must have appeared very like one another, yet each is a separate work of art. So also are the capitals to the columns of the beautiful sea arcade of the Venetian Ducal palace: alike in contour, they differ widely in detail, and unfold a Bible story. In Gothic cathedrals and monastery cloisters, a teeming variety of invention is hidden beneath apparent uniformity. The gargoyles of Notre Dame

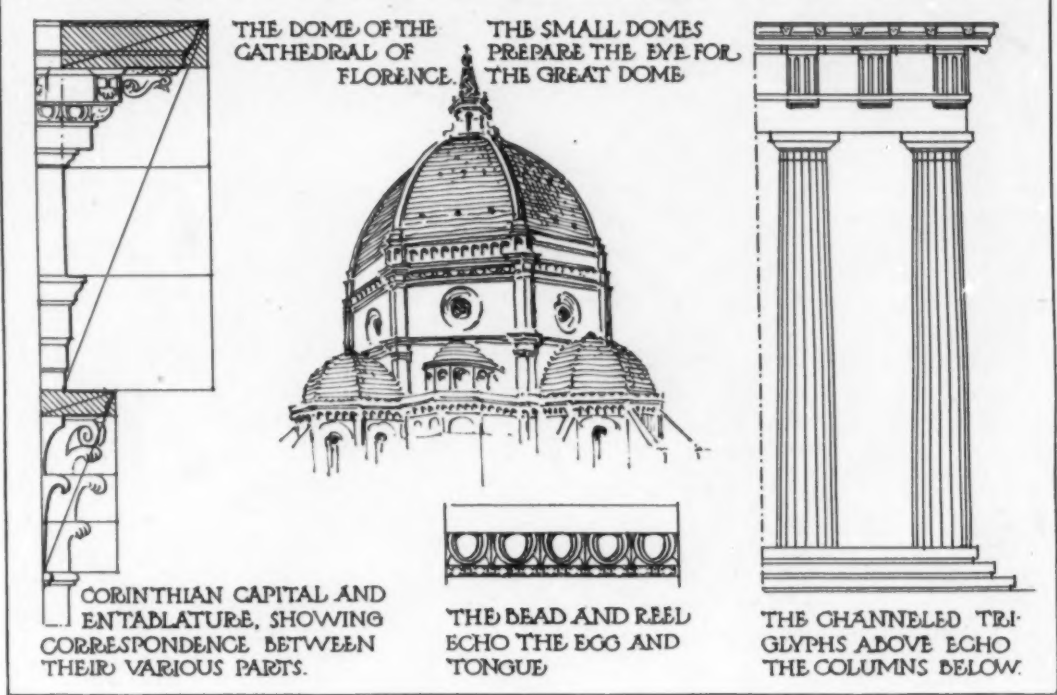
make similar silhouettes against the sky; but seen near at hand, what a menagerie of monsters!

The medieval builders of Italian churches varied the sizes of the arches in the same arcade; and that this was an effect of art, and not

THE LAW OF CONSONANCE: REPETITION & VARIATION



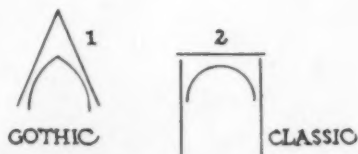
THE LAW OF CONSONANCE: REPETITION WITH VARIATION



due to accident or carelessness, Ruskin long ago discovered, and the more recent Brooklyn Institute surveys under Professor Goodyear have amply confirmed his view. Although by this means the builders of that day produced effects of deceptive perspective, of subtle concord and contrast, their hatred of monotony and meaningless repetition may very well have led them to such diversity for its own sake. It certainly imparts a sense of vitality to a succession of arches, which is lacking in a rigidly equal and regular division.

There is in nature a universal tendency towards refinement and compactness of form in space, or contrarywise towards increment and diffusion; and this in time manifests itself as acceleration or retardation. It is governed, in either case, by a known mathematical law, like the law of falling bodies. Its operation may be traced in the widening circles which appear when still water is disturbed, in the diminishing spirals of a shell, in the branching of a tree and the veinings of a leaf, no less

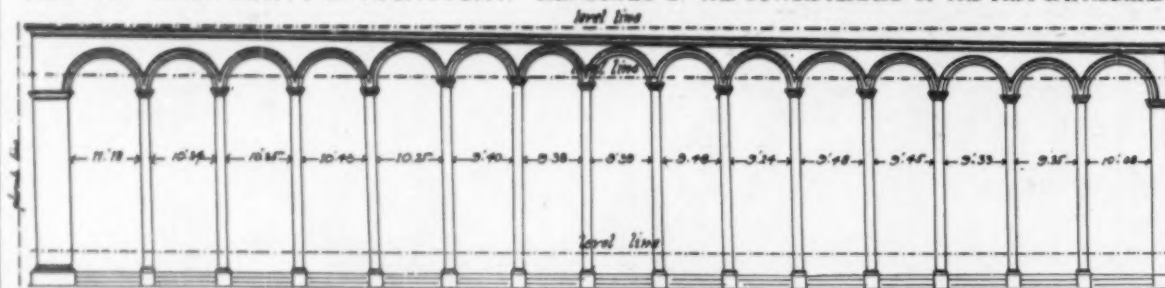
than in the decreasing sizes of the pipes of an organ, or in the spacing of the frets of a guitar. There appears to be no escape from this rhythmic diminution. It is in the eye itself, for any series of mathematically equal units, such, for example, as the columns and intercolumniations of a colon-



THE ELEMENTS OF GOTHIC (1) AND OF CLASSIC (2) ARCHITECTURE

nade, become, when seen in perspective, rhythmically unequal. The entasis of a column is determined by this law; the spiral of an Ionic volute, and the annulets of the Parthenon caps variously illustrate it. In recognition of this principle a building is often made to grow lighter and finer from

THE LAW OF DIVERSITY IN MONOTONY. EXEMPLIFIED IN THE LOWER ARCADE OF THE PISA CATHEDRAL



FROM PROFESSOR GOODYEAR'S SURVEY OF THE SOUTH WALL OF THE PISA CATHEDRAL, SHOWING VARIATION IN HEIGHTS AND WIDTHS OF THE ARCHES OF THE ARCADE, AND THE DIP OF THE HORIZONTAL STRING COURSE IMMEDIATELY ABOVE.

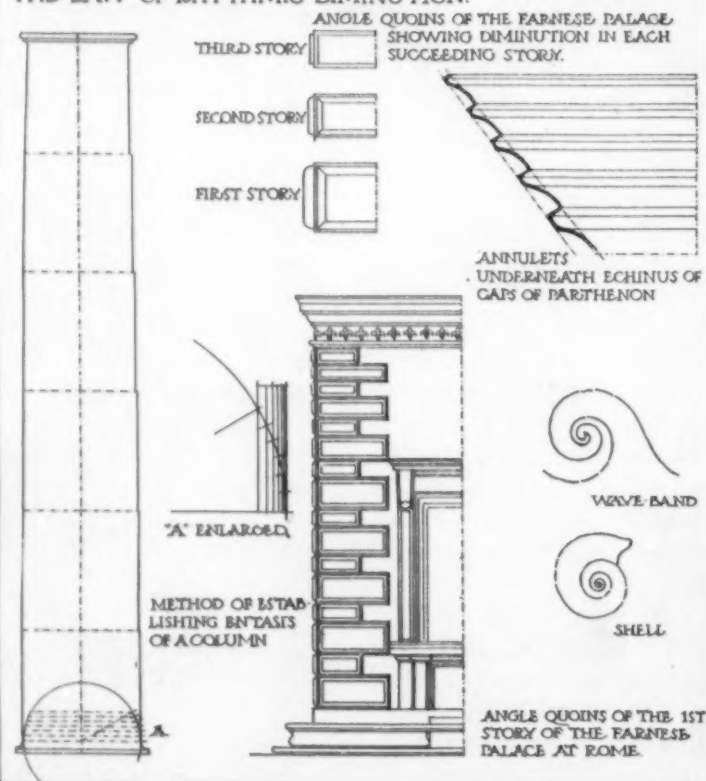
the ground upwards: an end attained by various devices; in the Riccardi palace, by diminishing the rustication of the ashlar in successive stories; in the Farnese, by reducing the sizes of the angle quoins; in an Egyptian pylon, by simply battering the wall; and in a Gothic cathedral, by a kind of segregation not unlike that to which a tree is subjected,—the strong, plain base, corresponding to the trunk, and the multitude of delicate pinnacles and crockets to the outermost twigs and branches.

Such are a few of the more obvious principles of natural beauty. First is the law of unity; then, since the unit is perceived to be twofold, the law of polarity: but this duality is always in a state of flux, the two combining to produce a third; hence the law of trinity, and of multiplicity in unity. From this follows naturally the law of

consonance,—of repetition with variation, and its opposite and complement, diversity in monotony, and—since all is waxing or waning—the law of rhythmic change.

It would be absurd to contend that the object of a work of architecture is to obey and illustrate these laws. A work of architecture is intended to fulfill certain definite practical conditions in an admirable way, and in fulfilling, express these conditions. The architect who is also an artist, however, will do this and something beyond. Working unconsciously and naturally, his work will obey and illustrate natural laws; and to the extent that it does so, it will be a work

THE LAW OF RHYTHMIC DIMINUTION.



of art, for art is the method of nature carried into those higher regions of thought and feeling which man alone inhabits.

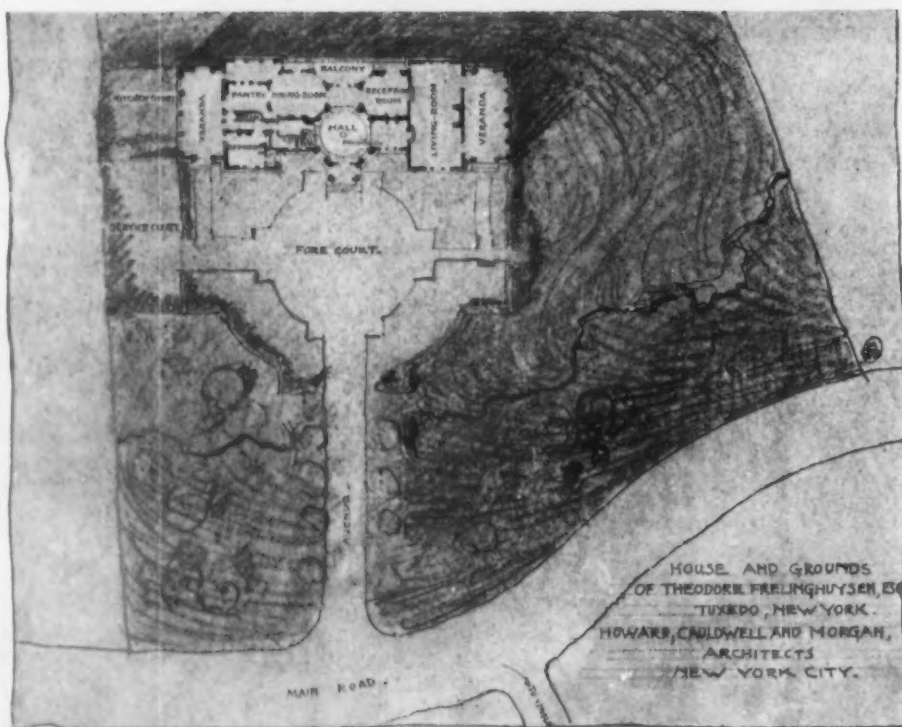
Claude Bragdon.



A HOUSE AT TUXEDO PARK

DESIGNED BY HOWARD, CAULDWELL & MORGAN, ARCHITECTS

*A House at Tuxedo Park*



A HOUSE AT TUXEDO PARK  
DESIGNED BY HOWARD, CAULDWELL & MORGAN, ARCHITECTS





A HOUSE AT TUXEDO PARK  
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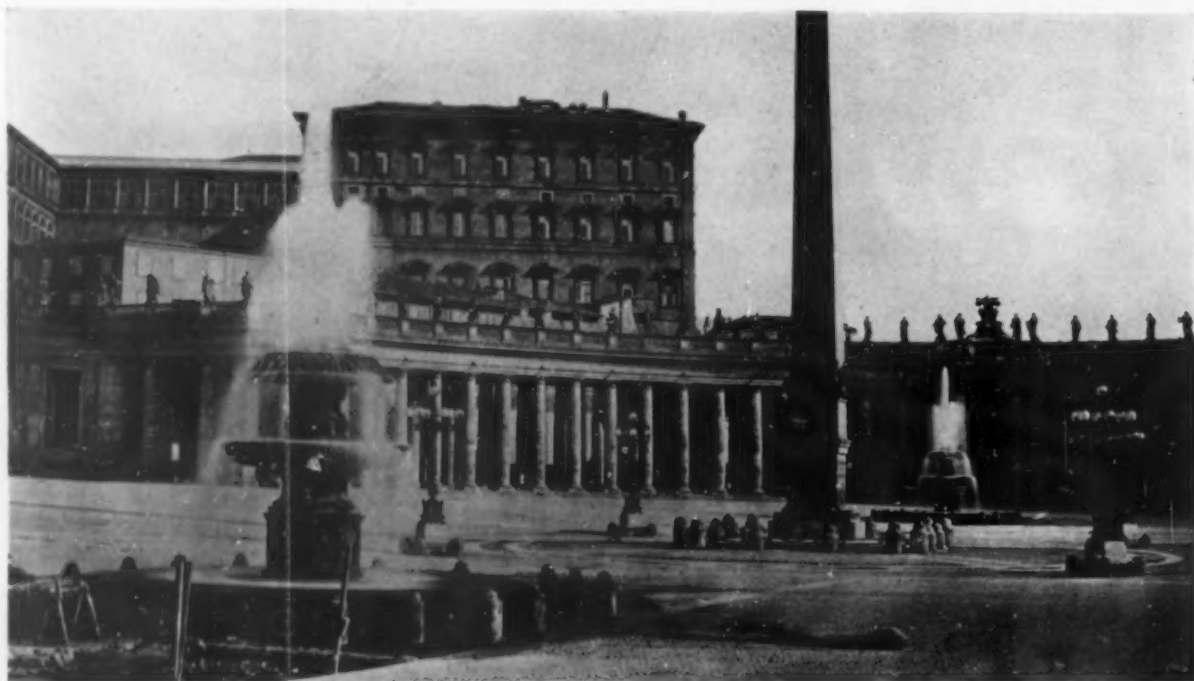
INTERIORS OF A HOUSE AT TUXEDO PARK  
DESIGNED BY HOWARD, CAULDWELL & MORGAN, ARCHITECTS

THE ORNAMENTAL MOVEMENT OF WATER IN CITY STREETS.—I.

THE municipal renaissance begun in many American cities within a few years, and now spreading rapidly through the country, may be compared to the process whose results are visible at intervals in the Vienna Royal Opera and other European theaters of the first rank. One after another, the older operas in the repertory are taken up and re-studied. Music, text and action that every singer concerned knows too well, if that be possible, are examined anew, and an effort is made to eliminate encumbering tradition and habit, and to realize afresh the significance and function of every factor. Orchestra and chorus go over the score as if for the first time, and the

or, better yet, the streets themselves, noting undesirable effects to be eliminated, and studying how to preserve or enhance public utilities and still avoid imposing upon any thoroughfare or square an aspect not in keeping with its inherent character. Often enough, such a committee will find that cost of ground and the demands of commerce or traffic conspire to prevent radical alterations like the cutting of a new street or the widening of an existing avenue. The committee therefore limits itself to planning minor embellishments instead of large schemes of reconstruction,—for not every American city can be a Twentieth Century Washington.

Far more likely than most other architectural or sculptural decorations, to be satisfactory under such circumstances, are street



THE PIAZZA OF ST. PETER

ROME

principal singers read their parts with the idea of embellishing them, and bringing more fully into relation with the whole drama episodes not previously utilized, so as to present a vital and complete interpretation. Even costumes and scenery are renewed.

Municipal art societies and other civic organizations are now doing this sort of work for their several cities. Committees of architects and laymen are going over street plans,

fountains, devised for the ornamental display of moving water. Should it be determined to reclaim some neglected fragment of public property in the city's busy quarter, or to erect a modest monument to a local or national hero, what more fitting than a design in which the beneficent influence of flowing water is felt? Even when the appalling lack of general knowledge in our country of what is good and what vicious, in sculpture, is responsible for

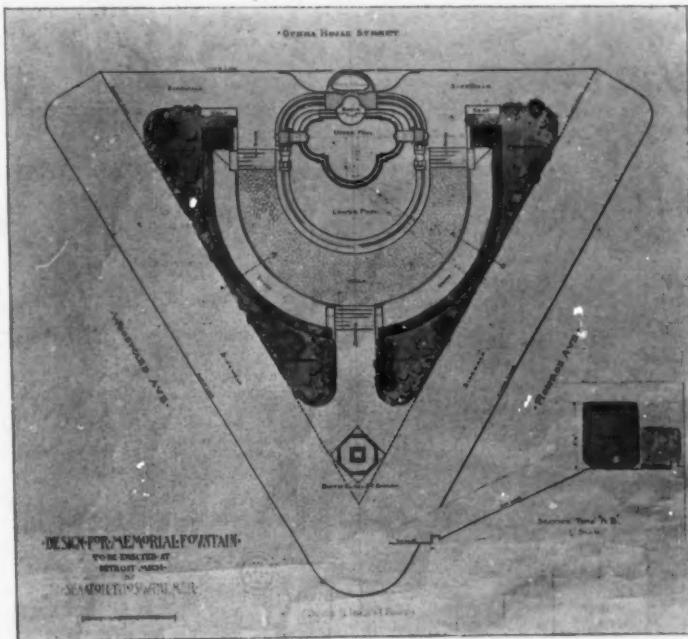


THE PALMER MEMORIAL FOUNTAIN

DETROIT

the admission of commonplace work, the presence of living water will almost invariably forward the general effect of a monument.

As music, judiciously interpolated, raises the vitality and appeal of a spoken drama, so does moving water, bearing proper relation to the static forms of adjacent monuments or buildings, enhance and help to communicate their characteristic qualities. This factor of water in motion, embodying and suggesting life, has been relied upon, in many a famous monu-



THE PLAN OF THE PALMER MEMORIAL FOUNTAIN

ment, to enforce the impact of an art work upon the senses, to attract, charm, fascinate. Whole cities were known, even before Roman times, for their ornamental use of water. Samarcand, "the ineffable," was one of them, and, as Vambéry records, it was the queen city of all the basin of the Oxus, reaching, under Tamerlane, the

height of its splendor. "The Mohammedans had a thousand poetic expressions in praise of its wealth, its abundance of water, its innumerable canals, fed from mountain

torrents and running in all directions through the plain."

American cities, noisy, impatient, utilitarian to the last degree, are singularly in need of the refreshing influence upon mind and body produced by flowing water. Let it be but so much as a slender jet, breaking into myriad drops as it seeks the sunlight, and it will appreciably affect its surroundings. As water is the greatest of mechanical solvents, so it acts here as a sort of flux, by whose aid the slow furnace of the mind reduces the more quickly to definite sensation the story implied in architecture and environment.

Three uses are distinguishable, in American cities, for moving water in streets: first, the purely decorative or monumental; second, in

latter might save five or six per cent. of their wages, otherwise sure to be spent at the nearest public-house. It was stated that in Liverpool, in one day of 13 hours, 8 minutes, 24,702 persons drank at 13 street fountains, an average of one every 25 seconds. Granting, however, that in this year of grace 1902, no



THE TYLER-DAVIDSON FOUNTAIN,  
CINCINNATI



THE ROBERT LOUIS STEVENSON MEMORIAL,  
SAN FRANCISCO

drinking fountains; third, in irrigating canals, limited to a few Western towns, such as Colorado Springs. It is a combination of the first and second classes, of the monumental structure with the fountain available for slaking thirst of man and beast, that should commend itself to the enlightened municipal art committee.

Every one, nowadays, admits the value and necessity, especially in warm weather, of a supply of free drinking water in public streets, though even this attitude is comparatively recent. It was as lately as 1859 that London was practically without such facilities, and that strong economic and social arguments had to be advanced before the city government would act. Temperance advocates showed how, by slaking the thirst of workmen, the

great persuasion is needed to convince city councils of the wisdom of spending money on drinking fountains, this sentiment should be utilized by municipal art committees to obtain, for such street fountains as deserve it, a treatment distinctly decorative. Another argument for architectural or sculptural setting is the practical necessity, even in a drinking tap, of a continuous, if small flow. Although this may seem a useless expenditure of water, no system of faucets quite serves the purpose in view. If the water must run all the time, it might as well be employed ornamentally.

Chiefly available for street fountains in American cities are the occasional circular or triangular spaces formed by the junction of several thoroughfares, and the much more



IN WASHINGTON PLACE

BALTIMORE

frequent sites against dead walls or at corners of buildings. American conditions are more favorable to the development of wall fountains than of those in open spaces. Our cities generally exhibit in their plans a discouraging reluctance toward curved lines or open paved plazas, surrounded by dignified buildings and not wholly given to vehicular traffic. There is nothing here to correspond with the Piazza before St. Peter's, the Place de la Concorde, Trafalgar Square, or the great Platz in Berlin. In these spaces, troops are reviewed and mass-meetings held; they are intended to contain crowds on stated occasions, and they are decorated with due heed to these purposes, by pairs or series of fountains and other monuments.

Here at home, traffic is apt to press heavily upon street space. In New York, for example, Madison Square might best be beautified, perhaps, by truncating the trapezoidal block

formed by Broadway, Fifth Avenue, Twenty-fifth and Twenty-sixth Streets, as suggested by Russell Sturgis, and placing a wall fountain, such as that of the Place St. Michel, Paris, at its southern end. The cost was roughly estimated at \$100,000. Broadway, in its diagonal course up Manhattan Island, offers several other opportunities for street fountains, especially at Longacre Square and at the Circle (Fifty-ninth Street), where the potency of the Columbus Monument might be heightened by shelving off the lower part of the pedestal, introducing spouts of water from it, and surrounding the whole with a basin. In spite of the adjacent green of Central Park, the Circle is now arid enough in effect, with its six street-railway tracks, to warrant this inexpensive improvement.

The tendency to-day is all away from placing fountains or other monumental structures



THE ACQUA PAOLA FOUNTAIN

ROME



in the middle of a street, unless there be ample space to insure free passage of traffic. There was sharp criticism, not many months ago, of the artistic immorality of a project for a monumental fountain in the town of Nordlingen, Germany, at the crossing of four streets, because two of these thoroughfares already had small decorative erections of their own, occupying strategic positions and likely to join in blockading vehicular passengers. To warn committees against such blunders as this, however, would be merely to utter what old Sir Henry Wotton, in his "Elements of Architecture," written nearly three centuries ago, might have termed one of the "vulgar cautions," being only another form of common sense.

When space for an open circle or triangle is available, formal treatment, with a fountain, is often strikingly successful. Such a method of ornamenting and vivifying a plot in the heart of a city may be studied in the accompanying photograph and plan of a memorial

fountain recently erected in Detroit from designs of Carrère and Hastings, by Senator Thomas W. Palmer. It divides the base line of a triangular space, at whose apex is a statue. On the street side, opposite the Opera House, is a drinking place for horses. The fountain itself faces the apex of the triangle, the water from this miniature *château d'eau* flowing into three successive basins. The two balustrades extending as quadrants on both sides of the central member help to focus interest upon the semicircular niche and its gushing water. The three single jets, issuing from the surface of the lower pool, prevent any feeling of thinness in the design. The recessed portal of the Opera House forms an excellent backing for the white stone structure, while the simplicity and accessibility of the fountain are both in its favor. The sinking of the pool below the street level enables the passer-by to see it more readily, and makes possible the advantageous effect of sloping grass plots, bringing



THE TREVI FOUNTAIN

ROME



THE FOUNTAIN OF ST. ANDREW

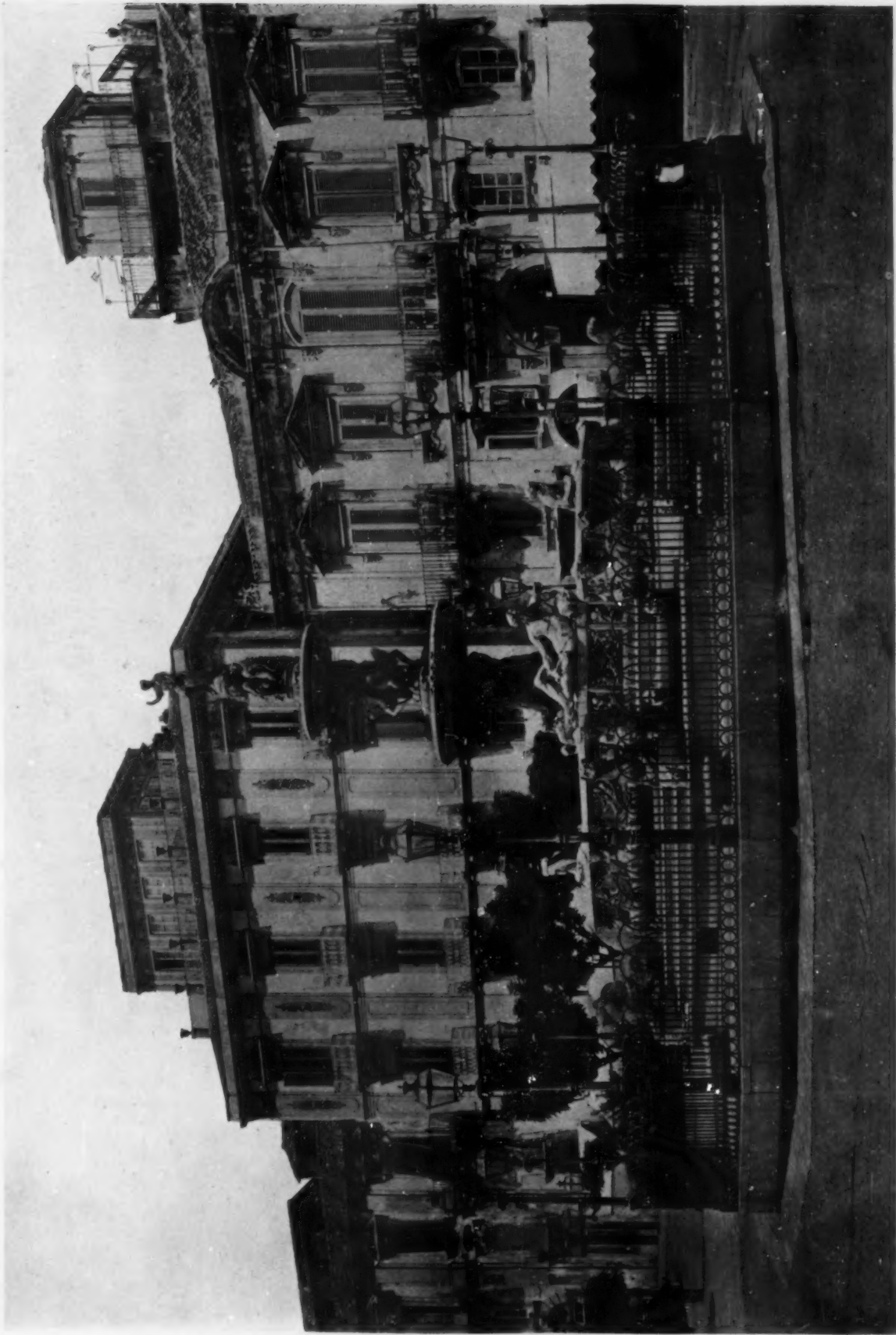
AMALFI

the green more immediately into range. A thick hedge, and, outside this, a growth of shrubbery, are also provided.

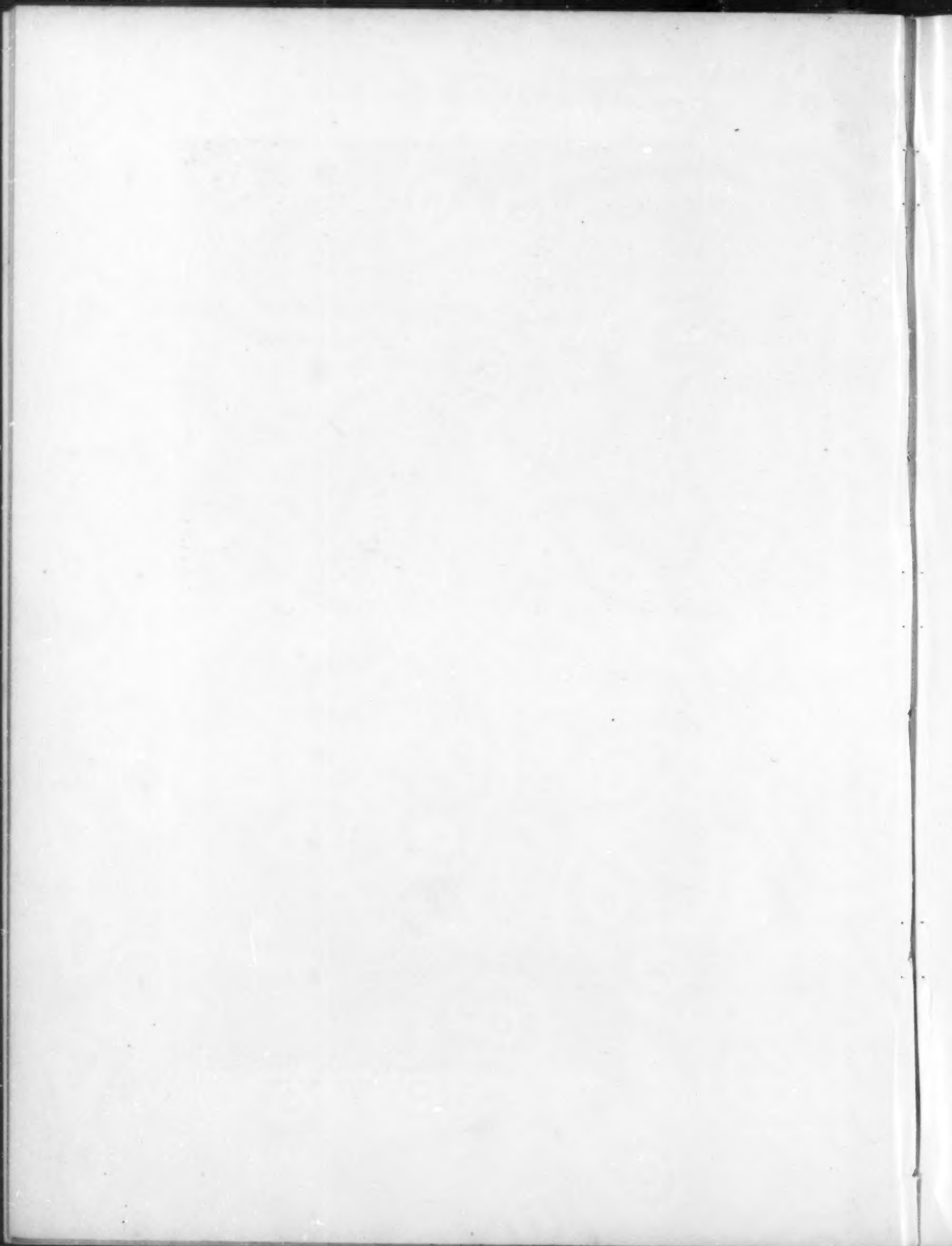
Occasionally, it is possible to heighten, by the introduction of moving water, the effectiveness of a monumental scheme already dignified. Of this, an example is found in the setting of the Washington Monument, at Baltimore, near whose base little fountains help to suggest elasticity. One of them, with park-like surroundings, is shown here. The volume of water is inconsiderable, but, in a quiet way, the fountain is not without influence.

It is none too often, however, that successful treatment of ornamental fountains is to be seen in American streets. For a characteristic example of bad placing, note the Tyler-Davidson structure in Cincinnati.

Seen, as in the illustration, from Fountain Square, its vertical axis nearly coincides with the angle of the tall building on the opposite corner, while one arm of the upper figure and part of the lower group is silhouetted against the sky. No design would retain its dignity under such circumstances, and in the present case, the fountain is further dwarfed by the tall trees that close in upon it. In extenuation may be urged the fact that this fountain was erected as long ago as 1871, from designs of a German, August von Kreling; even the casting was done at the Royal Bronze Foundry, Munich. Those were the dark days of American municipal art. American cities possess as yet few street fountains of any importance, so that municipal art organizations have ample field for their efforts.



THE FOUNTAIN IN FRONT OF THE CATHEDRAL, MESSINA





FOUNTAIN IN THE PIAZZA

RAVELLO

Readers of HOUSE AND GARDEN are already familiar with the proposed improvements in the City of Washington, suggested by the Park Commission. These include several new fountains, the most important being for the sunken garden at the foot of the Washington Monument and a cascade effect for the slope at the foot of the

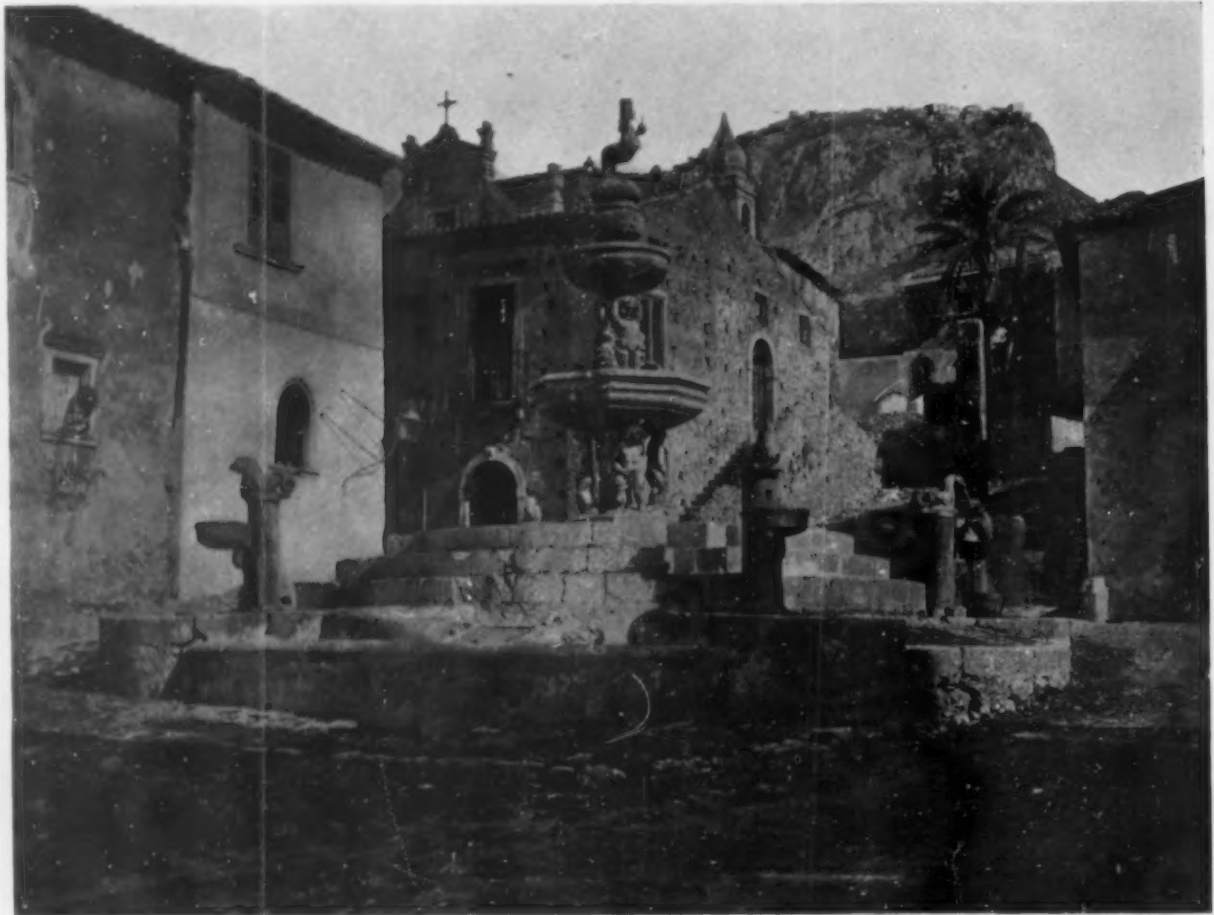


AT SAN LUIS POTOSI, MEXICO

Capitol. The Commission's report emphasizes the need of many fountains to help make bearable the heat of summer, when official business "is conducted at an undue expenditure of physical force." It continues: "If all the fountains of Washington, instead of being left lifeless and inert as they are during most of the time, should

be set playing at their full capacity, they would not use the amount of water that bursts from the world-famous fountain of Trevi, or splashes on the stones of the Piazza of St. Peter's. The original plans of Washington show the high appreciation L'Enfant had for all forms of water decoration; and when the heats of a

having fountains," he suggests, "is obtaining water for them. All large towns are perennially short of water, and pumping costs. In Rome, the water comes by gravity; therefore, as the cost is slight, the fountains play constantly. In Paris they play seldom, and dead fountains are dreary. In Washington, we can have a Roman



AN OLD FOUNTAIN

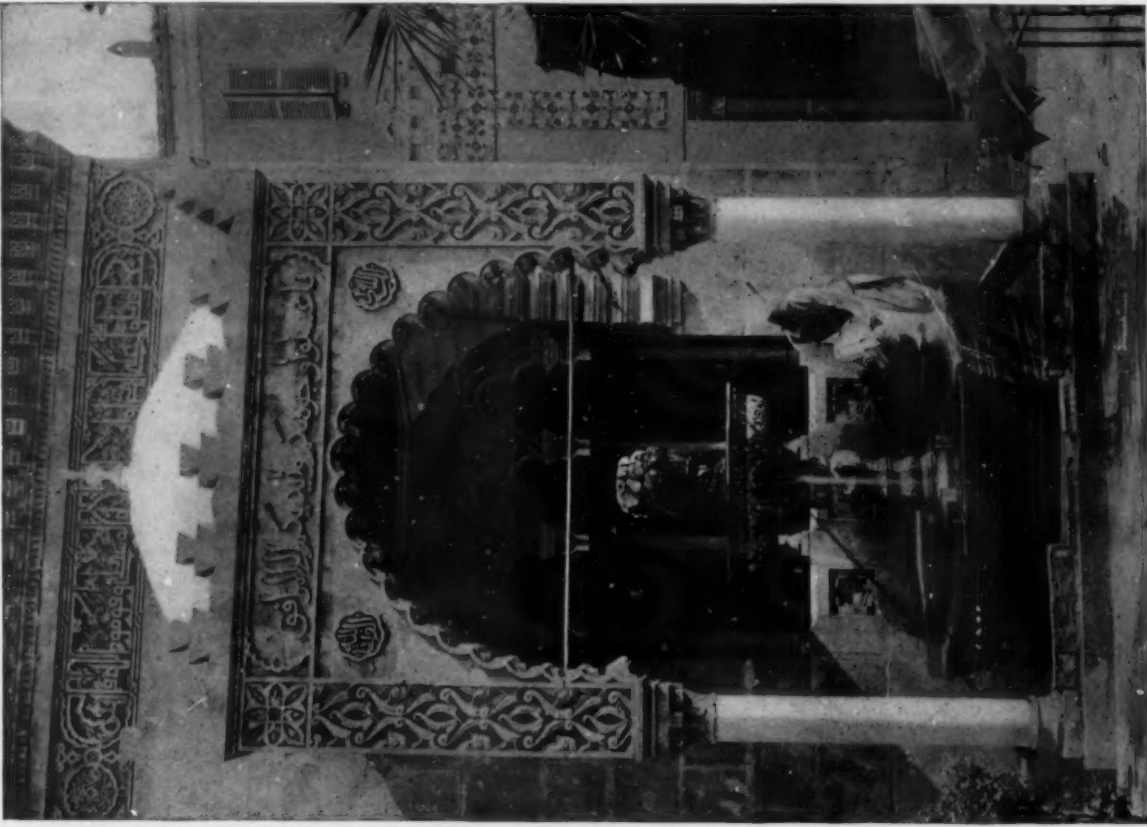
AT TAORMINA

Washington summer are taken into consideration, further argument is unnecessary to prove that the first and greatest step to be taken in the matter of beautifying the District of Columbia is such an increase in the water supply as will make possible the copious and even lavish use of water in fountains."

This may be supplemented by an unofficial remark of Mr. D. H. Burnham, of the Park Commission. "The difficulty of

condition. The Potomac above Great Falls is 150 feet above the town of old Washington; and at this point, the water supply is equal to all the old Rome sources, I should think."

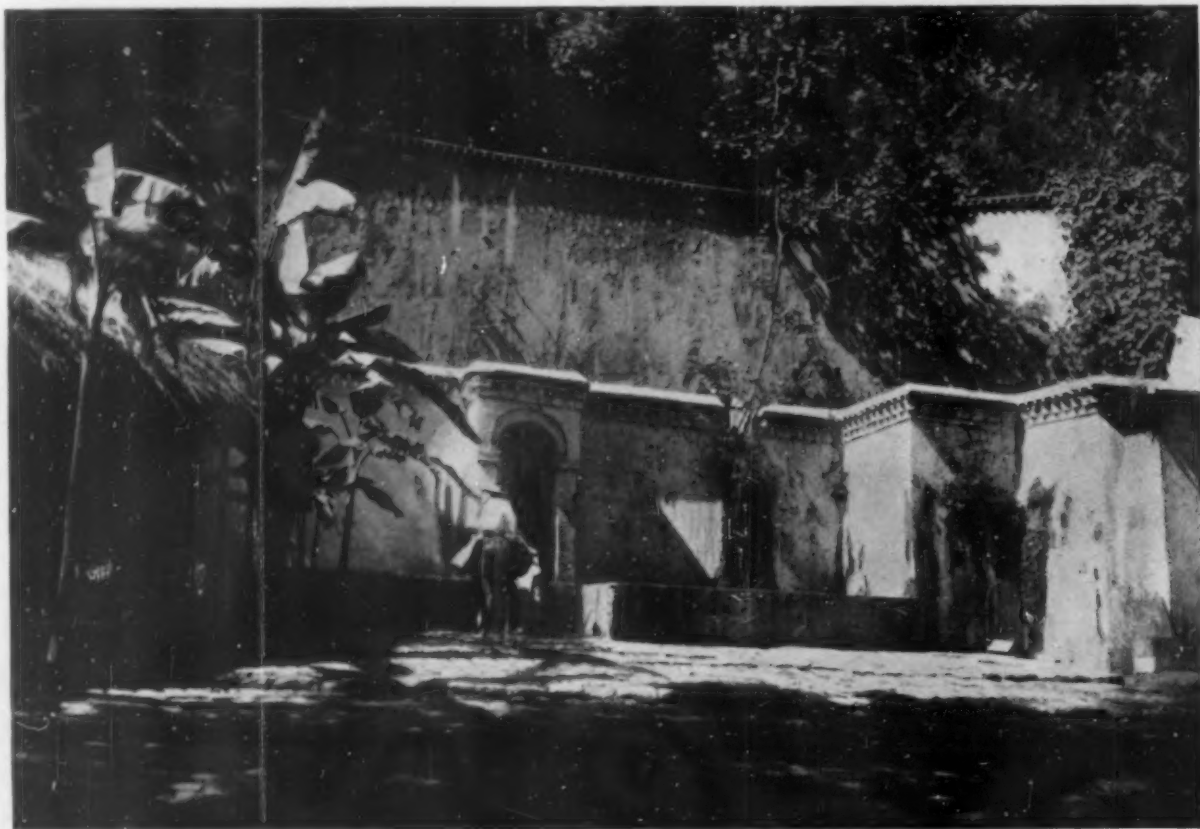
How copious these Roman supplies were, all the world knows, but the fountains in St. Peter's Piazza and the Acqua Paola are shown here by way of reminder. The two represent distinct types; the first that suited to an open space, to be seen from all sides:



FOUNTAIN OF THE MOSQUE, ORAN



WALL FOUNTAIN IN ALGIERS



A ROADSIDE FOUNTAIN

IN ALGERIA

the second, a wall fountain. The jets in St. Peter's Piazza reach a height of 45 feet. The Acqua Paola, on the slope of the Janiculum, was the ancient Acqua Trajana, supplied by the Lago di Bracciano, thirty miles away. Rome's most elaborate fountain is, of course, that of Trevi, erected against the south side of the Palazzo Poli, at the apex of a triangle jutting into an open square. Completed in 1762, it uses the main stream of the old Acqua Virgo, which, with a total daily flow of 13,000,000 cubic feet of water, supplies also the fountains in the Piazza di Spagna, the Piazza Navona and the Piazza Farnese. A good recent example is in the Piazza delle Terme, with Santa Maria degli Angeli in the background. It stands at the head of the Via Nazionale, near the Grand Hotel and the Teatro Costanzi. Just off the axis of a cross street, out of the way of traffic, this fountain com-

mands both thoroughfares. It sends up a copious and lofty jet, said to be especially effective at night, when the Piazza is lighted by electricity.

While several of the fountains here illustrated bear no direct relation to American municipal conditions, all suggest the refreshing influence of water in the highways and byways of cities, which is the point aimed at in the present paper. Once let the municipal art movement in some important city take up seriously the project of street fountains, and it is safe to predict an increasing following. The elasticity and adaptability to specified conditions, of these decorative objects; the feasibility of using wall spaces as well as open plots, the advantage of combining utility with beauty—these have been dwelt upon as practical matters. In another paper, considerations of individual design will be discussed.

*Samuel Swift.*

*To be continued*



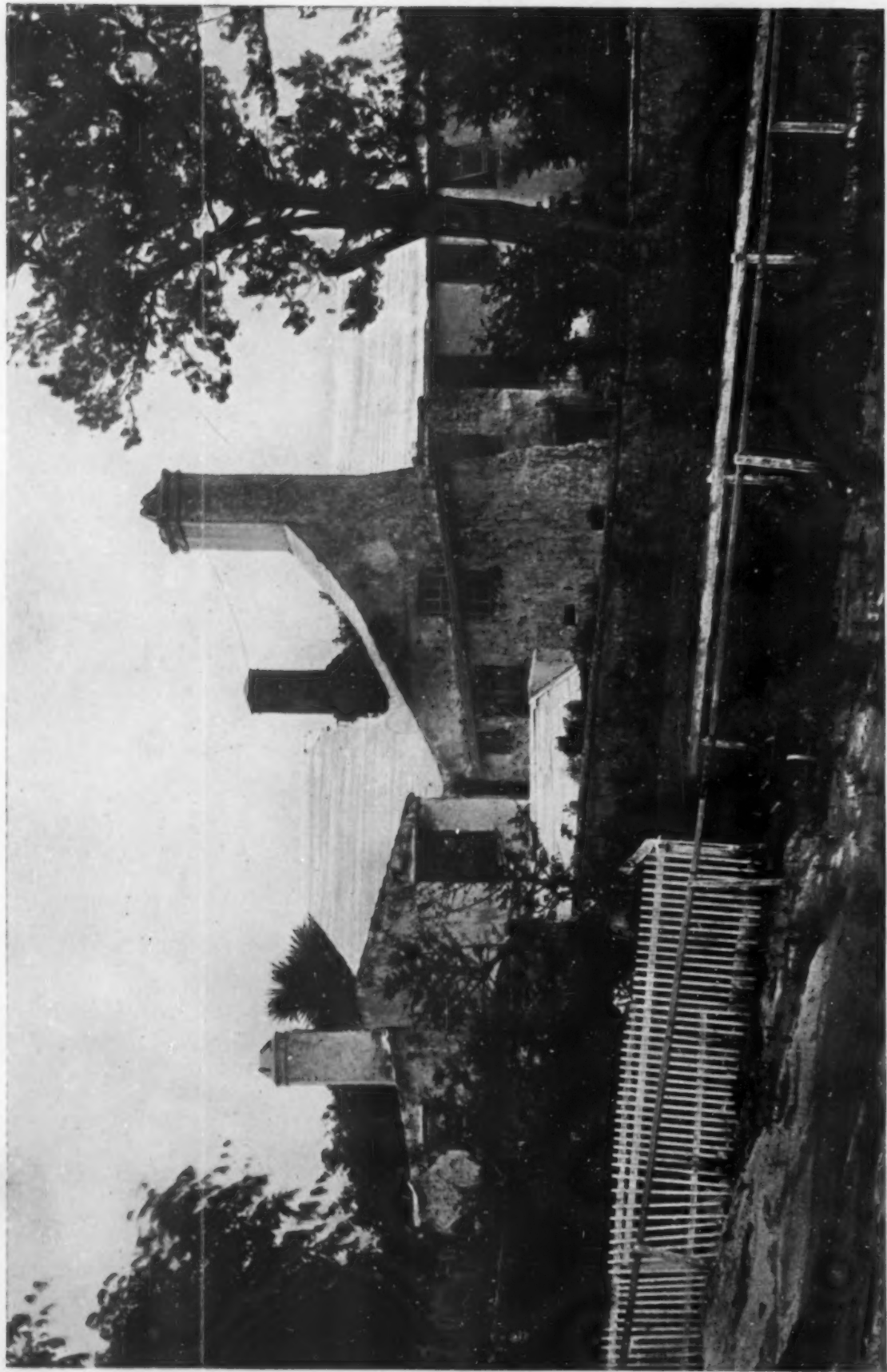


A DESIGN FOR A CONSERVATORY.

BY WILSON EYRE.

THIS conservatory is intended to occupy the vacant space existing between the end of a Philadelphia dwelling and a blank party-wall forming the rear boundary to the property. Instead of the far from ornamental appearance which the structure of green-houses usually exhibit, the walls are here to possess an interest in themselves. They are to be made of the same brick of which the house itself is built, and the introduction of decorative panels and sculptured ornaments cannot but heighten the effect of the plants in their different conditions of bloom. Light is to be obtained through a skylight which forms the roof, and also through a

succession of high-up windows. If, by such a surrounding of walls, sun and air may be sacrificed—as at first seems to be the case—there is really little less of these than if the space were walled only by glass and copper, for the height of neighboring buildings precludes an open exposure. In being made an integral part of the house, there is yet a sense of refreshment to be had in emerging here from the dining-room, from which three arched openings provide an egress. As the house has a basement kitchen, a full story exists below, and the side yard is to continue under the conservatory.—*Ed.*



AN OLD HOME, BERMUDA

CORAL-STONE AND PALM.

THE HOMES OF BERMUDA.

A land where quarries obey carpenters' tools and houses are "shingled" with stone; where oleanders grow wild for fuel and turf is a costly luxury; where rain and drought leave no interval, and cedar and palm hobnob thriftily, would be a yet stranger paradox if its conditions had not developed unique house and garden forms. Bermuda is one of the largest coral atolls known—the only one with a considerable population. It has no frost to kill tropic plants or extreme heat to blast those

of temperate zones. Rain often visits it, but through its porous rocks soon sinks out of sight, except where, rather brackish, it lingers above the heavier salt water in unused wells. These basic peculiarities have modified all men's ways of building and planting. As one threads in approach the coral reefs that have lined all its channel-ways with wrecks, the

main notes of Bermuda show at once in vivid green and clear white. Most of the foliage retains its color all the year, and in the crests of the old cedars it darkens to a tone like that which, in the stone pines of Southern Italy and the Turkish cypresses, gives to plantations their points of highest emphasis. The white is furnished by the dazzling coral sand of every beach, by all the roads and drives and by the houses themselves, which are uniformly of the same high key, as they peep out from the masses of green that encompass them. The color is a necessity peculiar to the soil, for the coral stone of which everything is built crumbles rapidly, unless it is kept constantly

covered with fresh whitewash. Something very theatrical is the result. What looks at a distance like a new villa of marble, dignified by a stately avenue of approach, may prove to be the home of a small farmer whose main interest is a patch of onions, or of Easter lilies—each set in a pocket of red cedar mould, as fine a natural garden soil as men know. But there are many houses which less belie their appearance, being really pretentious, and dating from the days of the blockade-runners who made this their harbor, or sheltering the higher officers of the British garrison.

Early Bermudans built gabled and chimney stacked cottages in the English way, and some of these buildings, neglected and crumbling into early ruin, are very picturesque. But the local form soon made its appearance. It suggests Italy in its roof lines, its occasional deeply-recessed *loggia* and its universally sharp white masses. It strongly imitates our own country



ALONG THE SHORE

BERMUDA

houses in its broad porches and verandas, and is in construction like nothing else in the world. Everything is built of the underlying coral stone. This is quarried at many places on the islands, and can be worked with chisel and saw to any shape when freshly cut; but on exposure it soon hardens, darkens and crumbles. Ordinary lumber, all brought from the United States or Canada, is dear, and so sparingly used as to open the eyes of a northern architect. The stone is sawed out in blocks of varying size, but usually about four inches by six, and twelve inches long. All the outer walls are laid in double courses of these blocks, the partition walls frequently of a single course but six inches thick. The

*Coral-stone and Palm, the Homes of Bermuda*



A QUARRY CARPENTER

BERMUDA

plan of each story is necessarily like that beneath; a large room may cover two smaller ones, but never the reverse, and there are few closets and storerooms.

When the height of a story is reached, the floor beams—of amazing lightness—are laid upon the walls. Ordinary rooms are floored upon 2" x 6" scantlings, generously "bridged"; quite large rooms upon 2" x 8" joists. Only in houses of considerable pretensions are the floors firm to

the tread; but the tremor of the slighter houses, though unpleasant to Northern visitors, does not annoy those accustomed to it. The most remarkable economies of framing, however, are accomplished in the

roofs. These are pitched at an angle seldom more than 25°, and are raftered with 2" x 4", 2" x 5" or rarely, even in the best houses, 2" x 6" scantlings. The attic space forms a protection from heat to the rooms below; it cannot be divided into low chambers with



A BERMUDAN ROADSIDE

dormer windows because the slender roofing timbers must be kept up to their work by elaborate bracing, which makes each long rafter form, with the corresponding ceiling-joint below, what is practically a lattice girder, thus occupying a space which might otherwise be available.

Upon this seemingly flimsy, but really sturdy, structure are laid wide slabs of coral stone in courses a foot or more to the weather.

However, as they are but an inch thick and comparatively light, the burden is less than it seems. Doors, mouldings,



AN OLD HOUSE AT PAGET

BERMUDA

window sash, the bright green blinds with which every window is shaded, all come from the great factories in the United States, ready-made. The poverty of design in these important details is one of the most serious drawbacks of these singular houses; but the generous space, the wide openings, the big porches, the outdoor life which goes on nearly all the year round, soon reconcile one to that sameness of detail, which doubtless

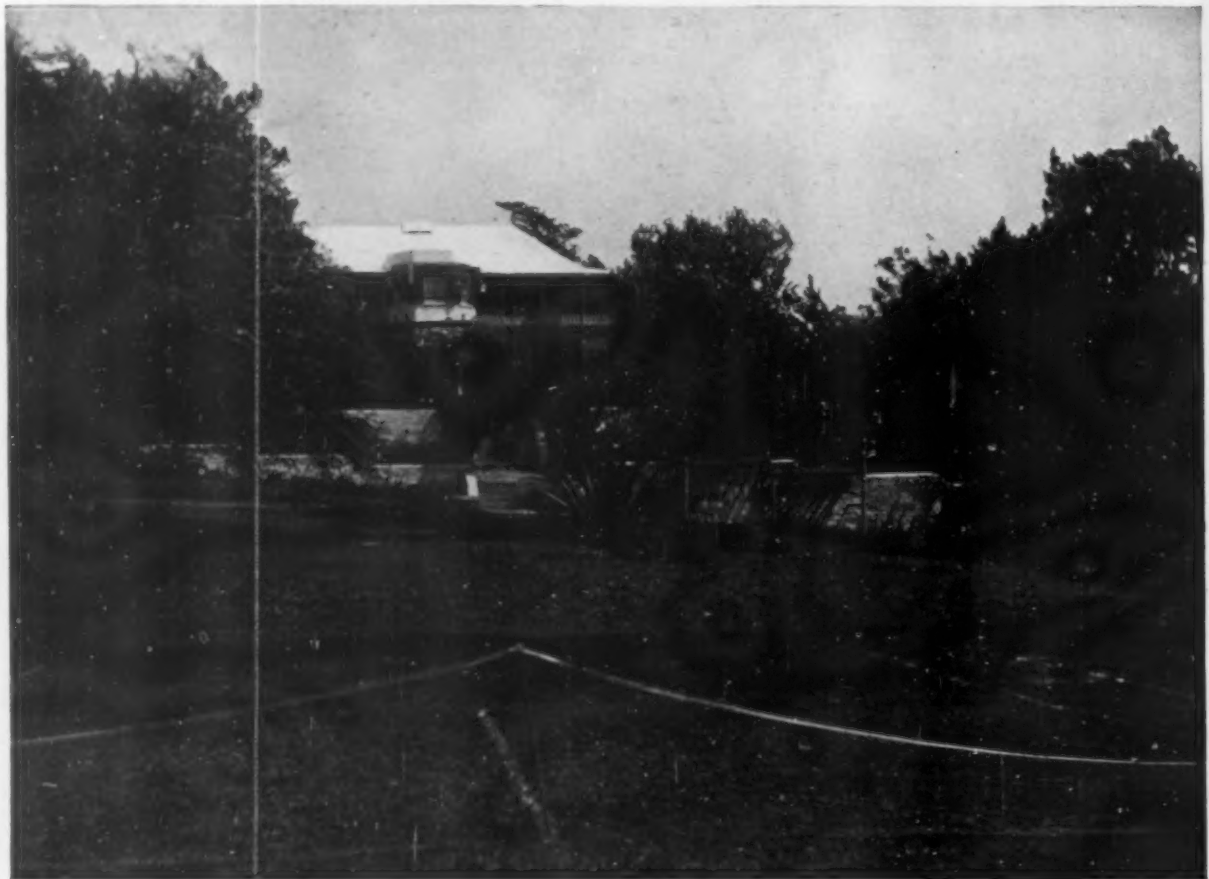
permits the dignity of general outline the greater scope, as the houses are seen behind



THE POET MOORE'S HOUSE

BERMUDA

*Coral-stone and Palm, the Homes of Bermuda*



A GARRISON OFFICER'S RESIDENCE

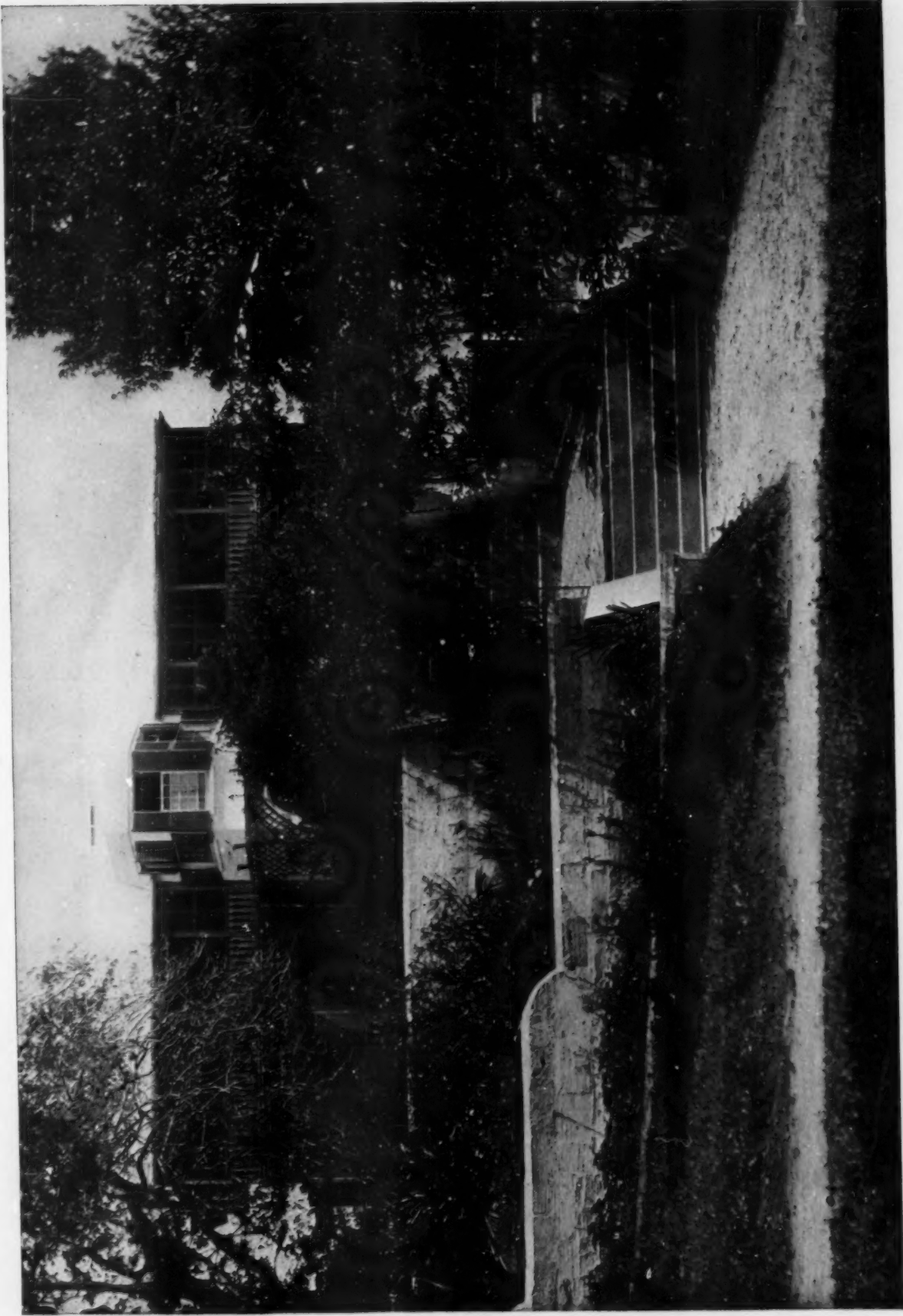
BERMUDA

their living walls of green. On the whole, there must be few places in the world where homes of dignified appearance, considerable space and a fair degree of comfort are so cheaply built or so numerous. Perhaps because Bermuda is a garrison post, where many officers of East Indian experience have built homes, many houses follow the bungalow type of construction, with one story over a capacious basement; and of the two-story houses, some show



ENTRANCE TO AN OFFICER'S RESIDENCE

the influence of Indian bungalow forms, not always to their advantage. But if the severely plain structures of this type are anywhere appropriate, they are so here, shaded by luxuriant masses of foliage, their marble whiteness relieved by sharp contrasts of light and shade. No Bermudan has an excuse for not surrounding his home with garden beauty. Land is not expensive, and even upon small village plots, an infinite variety of planting is



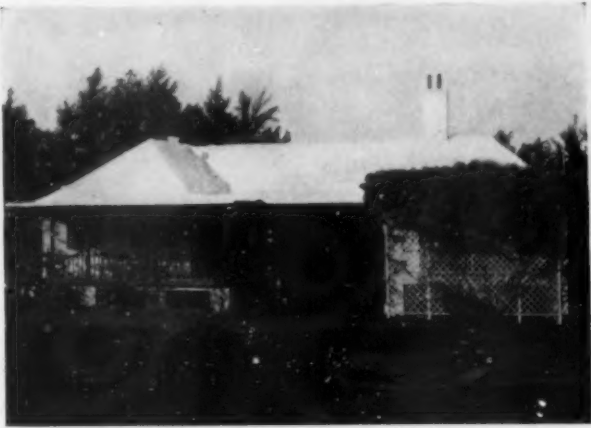
OFFICER'S RESIDENCE, BERMUDA

A TERRACED APPROACH

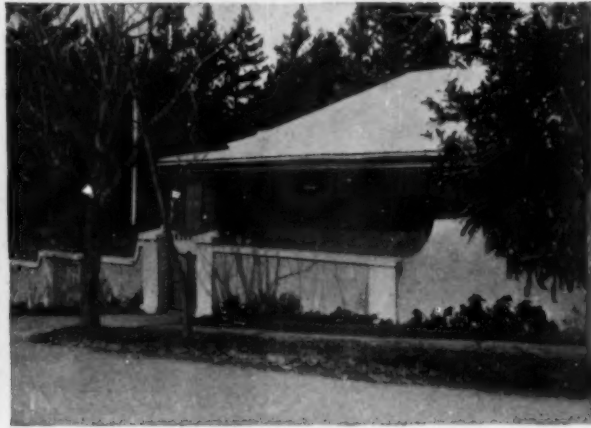




House & Garden



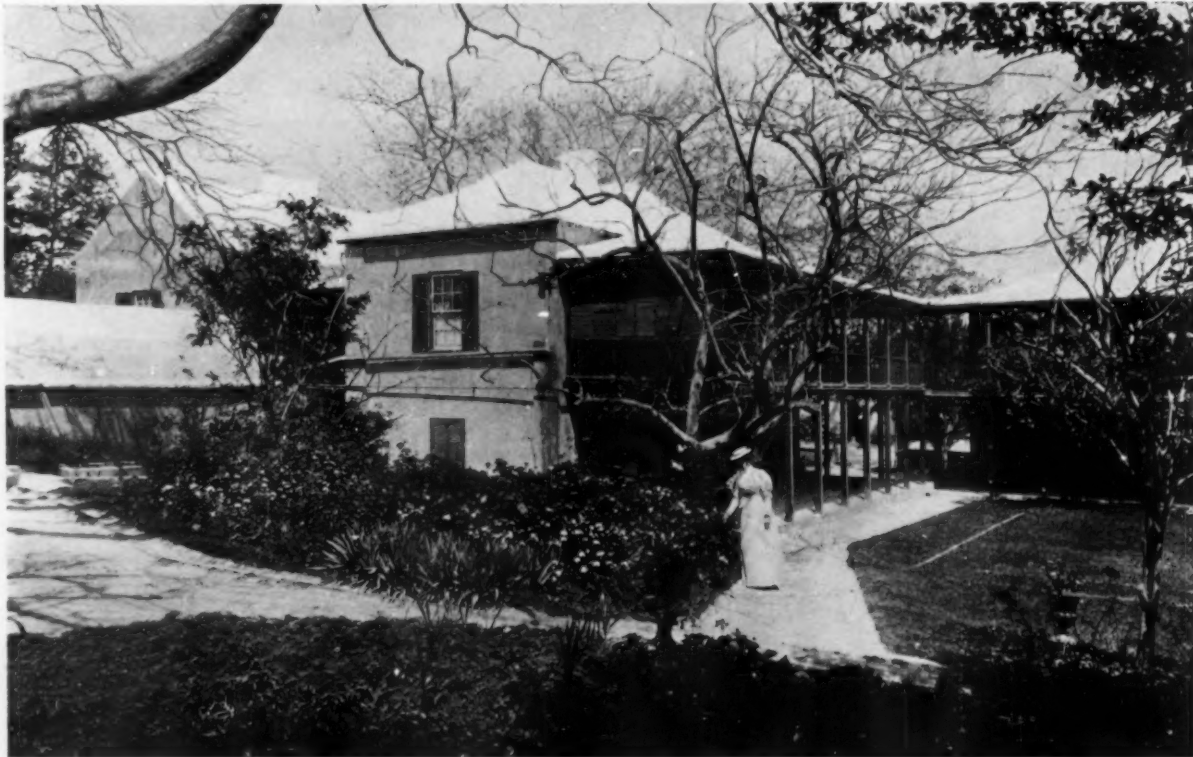
"UPLAND VILLA"



THE BISHOP'S LODGE

practicable. The whole island group is like a museum of rare growths from every land. Curiously, good grass is, in its perfection, the rarest luxury. As all water used must be stored in cisterns, it is hard to provide enough to keep a large lawn in good condition. This may account for what at first seems an excess of plantation, a tropic richness of effect which narrows vistas and restricts open spaces, but which, after all,

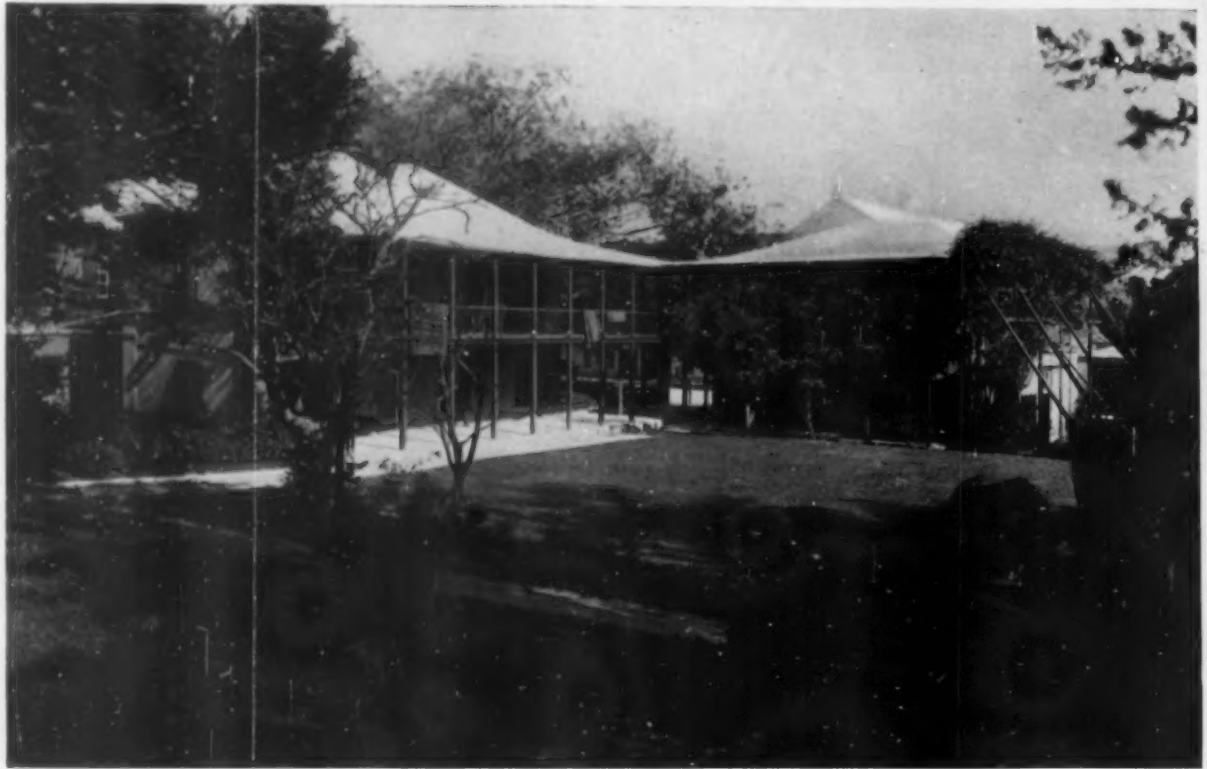
justifies itself where sunlight is intense. The stately royal palm, the most impressive tree upon the islands, grows too slowly for much use in gardening, but there are smaller varieties, the date palm, the gru-gru, the screw palm and the common palmetto, that more quickly fill their places. For dark background masses, nothing could be better than the cedars that grow freely in the red dust of their ancestors; and in winter the bare



A TROPICAL HOME

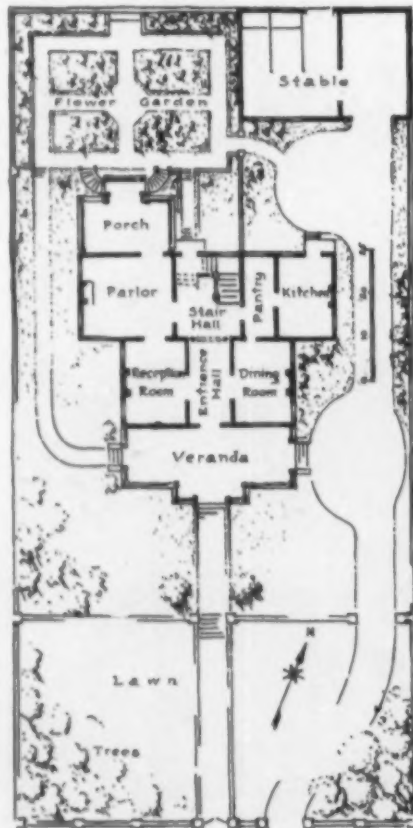
BERMUDA

*Coral-stone and Palm, the Homes of Bermuda*



A HOUSE AND PLAYING LAWN

BERMUDA



A BERMUDAN PLAN

branches of the calabash trees and the avocado pears furnish an eerie tint of grayish white, an admirable mean, in the extremes of color values which characterize the landscape.

The glaring white of the coral-stone walks and drives dictates that they be kept narrow, direct and moderate in number. The southern exposure is the favored one; here are found the wide porches, the grassy terraces, whereon in the late afternoons society disports itself.



AN ENTRANCE

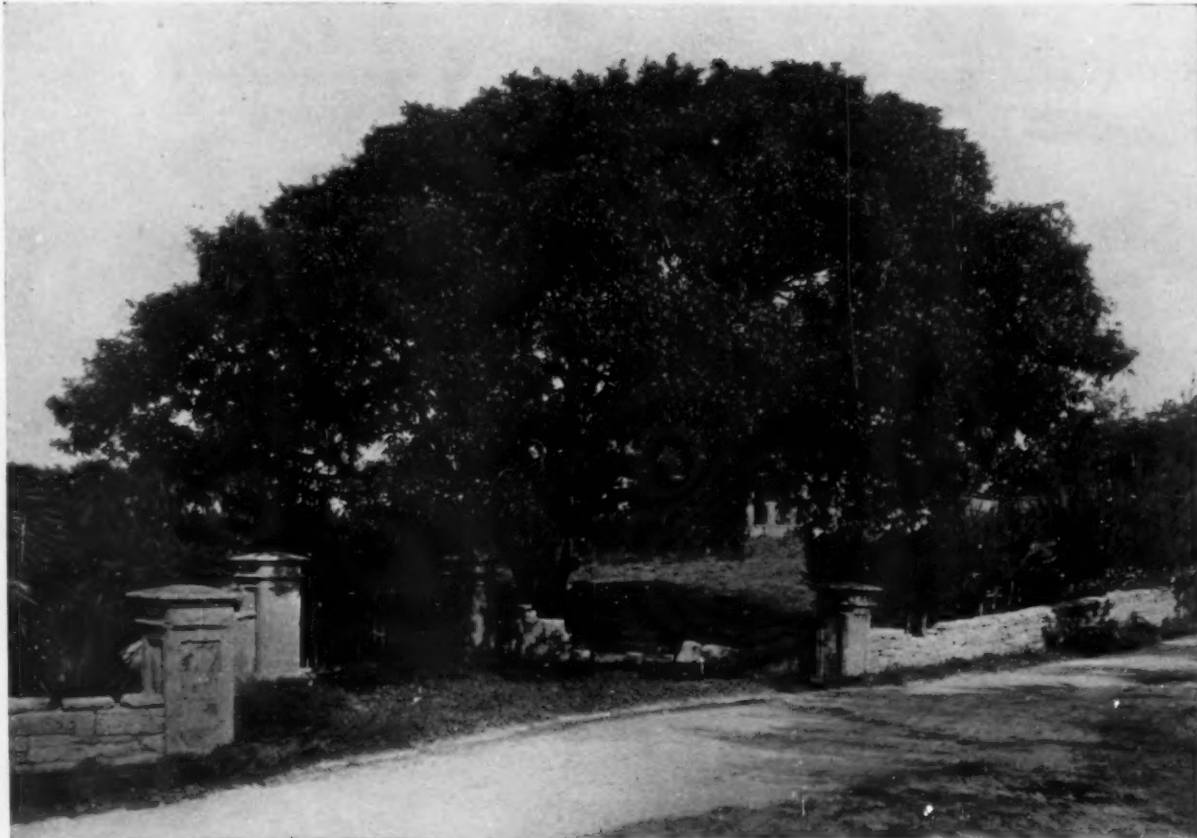
BERMUDA

*House & Garden*



ONE OF THE OLD LANDMARKS

BERMUDA



A MAHOGANY TREE

BERMUDA

The entrance walks are usually edged with cool green box; and carriage turns are in the more careful plans arranged to the northeast, so that their wider glare may not reflect the sun into the living-rooms. There is enough summer in most parts of the United States to make this an example worth considering in grounds of ordinary dimensions. The error of using up an excessive proportion of available space in complicated walks and drives is less common in Bermuda than farther north. The Islands afford a rare opportunity, less often utilized than it should be, for water gardening. Upon low-lying sites near the sea, one has but to scoop out the basic rock below sea level to have his ponds and moats fill with exquisitely clear salt water that rises and falls with the tides and in which fish, that rival in coloring the flowers of the garden, thrive mightily. A visit to any aquarium reveals the wonderful possibilities of the island fishes; perhaps a dozen or more fine country-seats have made use of the stolid "grouper," the flaming "parrot fish" and the translucent "angel fish" as adjuncts of their formal ponds and water alleys. And there are several places which utilize in larger sheets of water the uncanny growth of those amphibious-puzzles, the mangroves, which bury their branches as well as their roots in the water and thus gradually encroach upon it. Fresh-water plants can only be raised by

providing ponds with impervious bottoms and suitable soil on top of that.

The early settlers in Bermuda found almost nothing but the cedar. They took there everything they knew, every homely plant of home gardens, and more slowly added the growths of the tropics. Almost anything that will grow anywhere will grow here. It is as if the wealth of Kew, or Fairmount, or the Bronx were turned out of doors to riot with the sturdy flowers of New England and Old England. A hedge of sweet peas and a great bed of Easter lilies will be in bloom at the same time. Convolvulus takes its noon nap in the shade of banana plants, whose long narrow leaves are forever split and battered by the wind. Oranges and lemons—ornamentally rather than commercially used—gleam golden in the foliage, and the pawpaw tree towers high above sugar-cane patches. Pride-of-India trees shade the streets of Hamilton and huge mahogany and india-rubber trees are among the occasional ornaments of private grounds. But always it is the palm, in some one of its many forms, that rises from the foreground to give the aspect of planted groupings an exotic look; and ever in the background lurks the cedar, as if to remind the observer that it is after all the "oldest inhabitant"—as it is one of the most beautiful.

*John Langdon Heaton.*





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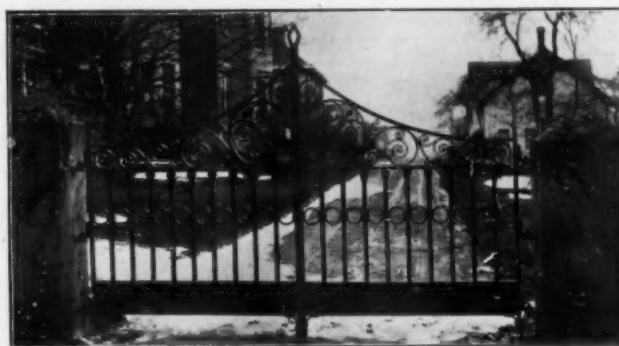
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