

The RESULC OF SKILL, inspired by a keen appreciation of the artistic and a desire to live up to an enviable reputation, directed by the latest scientific knowledge, and practical experience gained by eightyfive years of piano building. I the resulting excellence, both as to tone, touch and general staying power, is the reason and the only reason for the uniformly high favor in which it is held in exclusive musical circles. I it is conceded to be a standard of comparison for all other makes.



EVERGREENS FOR TUBS

HE use of evergreens for beautifying dwellings in winter is becoming more general every day. They are useful all the season through, from the first days of winter until spring comes, and even for summer use they are often met with on lawns, placed near dwellings and along pathways.

A great deal of attention has been paid of late to the producing of sorts of evergreens suitable for this purpose, of good outline, rather pyramidal than spreading and with foliage that when several kinds are near each other there will be contrasting colors.

A good selection can be made from the following kinds: balsam and Douglas' spruce, box bushes, Lawson cypress, evergreen euonymus, Japanese and other hollies, junipers, white, Norway and hemlock spruce, cembra and white pine, retinisporas in several varieties, yews, American and Chinese arborvitæ.

From the foregoing list a collection such as is generally met with could be got together, one that would please.

The potting or boxing of the plants should be done soon, well in advance of winter, that they be well established before housing time comes. There will be no need to give these evergreens any care at all after they are potted beyond putting them in a half-shaded place and giving them an abundance of water for a week or two.

A collection of such potted evergreens set about a florist's establishment adds to its interest and attractiveness.-Florists' Exchange.

STEALING GILDED RAILINGS IN PARIS

UMEROUS Parisian monuments are surrounded by rails of wrought-iron, and these, as a rule, are gilded over. The quantity of the precious metal utilized is so infinitely small that one can hardly imagine that it would be worth anybody's while to take the trouble to smash and carry away these rails. Recently the police surprised a gang of robbers at work on the fence of the Jardin du Luxembourg, but so clumsily did the officers go to work that all the criminals escaped with one exception, and he vigorously protested that he knew nothing of the gang and was only a passer-by.-Galignani Messenger.



A No. 22 IDEAL Boiler and 240 ft. of 38-in. AMERICAN Radiators, costing the own-r **\$112**, were used to Hot-Water heat this cottage, at which price the goods can be bought of any reputable, competent Fitter. This did not include cost of labor, pipe, valves, freight, etc., which installation is extra and varies according to climatic and other conditions.

A No. 3-22 IDEAL Boiler and 600 ft. of 38-in. AMERICAN Radiators costing the owner \$250, were used to Hot-Water heat this cottage, at which price the goods can be bought of any reputable, competent Fitter. This did not include cost of labor, pipe, valves, freight, etc., which installation is extra and varies according to climatic and other conditions.

Inexpensive heating

Last Winter's lesson was a long and expensive one to those who relied on old-fashioned heating. Must it be learned all over again or will you now take advantage of this good buying time to put in

KADIATORS

They are no longer called luxuries, because proven an economy in all classes of buildings, and from the largest to the very smallest.

BOILERS IDEAL Boilers and AMERICAN Radiators have raised the standard of home comfort. They pro-vide uniform warmth in all rooms, far and near, and under perfect control. They bring no ash-dust or coal-gases into the living-rooms, greatly reducing house-cleaning and saving much wear on carpets

coal-gases into the living-rooms, greatly reducing house-cleaning and saving much wear on carpets and furnishings. The fuel savings, health protection, and cleanliness soon repay their cost. The question most often put to us is: "What will it cost to heat my cottage, consisting of rooms?" Failure to answer this question promptly and exactly brings criticism. The owner forgets that, for instance, all five-room cottages are not built exactly alike as to size of rooms, height of ceiling, amount of window or glass surface nor are they all constructed of equal quality of material, or weather tightness, or so located with respect to adjoining buildings as to be equally protected from the elements. This likewise true of six-, seven-, eight-, and nine-room or larger cottages, and these factors decide the character and size of the heating outfit for each particular building, and the cost thereof. The only fair and correct way for your interest and on is to permit a representative to call and examine into your exact heating needs. Such definite information and prices will put you under no obligation whatsoever to buy.

No tearing up necessary—put into OLD buildings—FARM or town. Write today and let us put you in immediate com-munication with nearest dealers. Ask for free valuable book. Let us prove to you that Steam and Hot-Water is inexpensive heating. Sales Offices and Warehouses in all large cities.

DEPT. 10



. 020 IDEAL Boiler and 262 ft. of 38-in. A No. 0.20 IDE AL Boiler and 252 ft. of 38-in. AMERICAN Radiators, costing the owner \$177, were used to Steam-Heat this cottage, at which price the goods can be bought of any reputable, competent Fitter. This did not include cost of labor, pipe, valves, freight, etc., which installation is extra and according climatic and

A No. 3-22 IDEAL Boiler and 400 ft. of 38-in. AMERICAN Radiators, costing the owner \$234, were used to Hot-Water heat this cottage, at which price the goods can be bought of any reputable, competent Fitter. This did not include cost of labor, pipe, valves, freight, etc., which installation is extra and varies according to climitic and other conditions.

AL OPAL OPAL OPAL OPAL OPAL OPAL OPAL

A No. 015 IDEAL Boiler and 175 ft. of 38-in. A No. 015 RDEAL Boiler and 175 ft. of 38-in. AMERICAN Radiators, costing the owner \$116, were used to Steam-Heat this cottage, at which price the goods can be bought of any reputable, competent Fitter. This did not include cost of labor, pipe, valves, freight, etc., which installation is extra and varies according to climatic and other



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COMMENTS ON NEW BOOKS GREEK AND ROMAN ARCHITECTURE*

ANYONE interested in Greece and Rome will be delighted with the second, revised edition of Anderson and Spiers' fascinating guide to Greek and Roman Architecture. The earlier chap-ters comprehend the Ægean Age, the Archaic Age and the Culmination in Athens, Etruscan architecture and early work in Rome. The authors then group into chapters the various related types of buildings of the classic world. The volume contains 255 excellent illustrations, from photographs, drawings, maps and restorations which are an invaluable accompaniment to the text. Enough history and archæology are woven in the descriptions to carry even the untechnical reader from page to page, while for the architectural student it makes a text-book of unusual charm. A chronological table of Greek temples, a glossary of technical terms, a list of selected books for further reference, and a general index leave little to be desired.

FAMOUS COUNTRY HOMES †

WE never tire of looking at pictures of handsome estates built by private owners for their own residences. Mr. Louis Valcoulon Le Moyne has brought together in one large, sumptuous volume plans and photographs of most of the great show-places of Italy, France, England and America. "They are taken up in chronological order," says the author's introduction, "beginning with the villas of Italy, then the chateaux of France, then the English, and finally the American places; endeavoring to show relationship of one to the other, and how the later ones were the outgrowth or development of the earlier."

The best Italian villas were built in the sixteenth century by the rich cardinals of Rome as summer residences and were surrounded by many shade trees in their formal gardens and a profuse water supply on account of the hot climate. Most of them are now rather neglected on account of the comparative poverty of great Italian families and

*The Architecture of Greece and Rome. A Sketch of its Historic Development by William J. Anderson, A. R. I. B. A. and R. Phené Spiers, F. S. A., F. R. I. B. A. Second edition revised and enlarged by R. Phené Spiers, size $6\frac{1}{2} \times 0\frac{1}{2}$ inches, pp. xxii + 350, price \$7.50 net. Imported by Charles Scribner's Sons, New York.

† Country Residences in Europe and America. By Louis Valcoulon Le Moyne. Size 11 x 141/2 inches, pp. viii+460, price §7. 50, net. Published by Doubleday, Page & Co., New York.

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some of their gardens have been made public parks. The house generally stands in a small plot of a few acres where the great English country house is surrounded by its thousands.

Among the French places treated Versailles is the most famous. Indeed this colossal royal home, costing nearly \$100,000,000 stands by itself as a monument of lavish expenditure. Architecturally these French palaces have become models for the rest of the world, and many of the gardens were planned by Le Notre, the famous landscape gardener of the time of Louis XIV.

But it is in England that the country home has reached its most attractive development. The great manor with its thousands of acres of forest or farm land, its park of a hundred acres and its garden of a score more, is the English nobleman's most precious possession. His castle, which has descended to him through a long line of illustrious ancestors, the adjoining church, the village and the tenants, are all an intimate part of his life. It matters not that his home is a day's journey from London and inconvenient of access. He has interests there to which he can devote himself, and he frequently entertains parties of friends with shooting or hunting. The country house and the house-party have long been important features in English life.

We have not attained in America the cultivation of the country life as it is practised in England. For one thing the desire of every man here to own his own house, even if mortgaged, prevents the maintenance of such extensive estates in America by income from a reliable rent-roll. Popular fashion, too, frequently changes the values of residential districts and still more sudden turns of financial fortune have conspired with her. The young American marries and leaves his ancestral home, seldom to return to it. Into him has not been trained the reverence for the old family place that actuates the Englishman. It is one of the failings of our virtues. We are not apologizing for it. In this country it is neither appropriate nor necessary. This condition is reflected in the book before us. Except for Mt. Vernon, Arlington and the Longfellow house none of the places pictured is of historical significance. Biltmore, near Asheville, North Carolina, with its hundred thousand acre domain and its



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The COLOR SECTION in this number is devoted to an eight-page article entitled

"PROBLEM" PICTURES

The term "problem" as applied to a picture expresses a work of art in which the artist's meaning is capable of several different interpretations. It is only human nature, when one is perplexed how to explain a scene in a play, a poem, or a picture, to ask what the author himself intended to convey.

The article is illustrated with eight famous "problem" pictures, reproduced in color.

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neighboring village, is an effort in the English manner. Most of the other places are more modern than the historic homes of Washington, Lee and Longfellow and are simply elaborate but comfortable country houses.

The volume is well printed and tastefully bound. The chief flaw is the author's monotony of expression and his habit of making a paragraph of nearly every sentence.

COLOR IN THE FLOWER GARDENS*

SURELY to have color is one of the chief reasons why we make flower gardens, and Miss Gertrude Jekyll has made a sensible study of the none-too-easy problem of having a garden bloom with satisfying coloreffects all the year round. "I believe," she says, "that the only way in which it can be made successful is to devote certain borders to certain times of year; each border or garden region to be bright for from one to three months." She takes the subject up by seasons and her volume is very suggestive to those who are more than mere grubbers in the soil.

It will appeal to the esthetic taste of many. The book is one of the excellent "Country Life Library" and naturally its advice must be taken with the necessary allowance for differences between the climate of England and that of America. A large number of handsomely printed illustrations and garden plans are included.

A SUBURBANITE'S GARDEN DIARY **D**ROBABLY the Commuter is lightly regarded because his happier life makes him laugh when the inmates of tall tenements grow haggard with care. At any rate the Commuter is now offered a book decked out in bright pink and green, for keeping the joyous tally of his experiments with mother earth. It looks like one of those gay volumes presented to new parents by frivolous friends in which to chronicle every event in Baby's life. But the Commuter will accept this volume cheerfully for he will see that it contains suggestions for the flower garden month

*Colour in the Garden. By Gertrude Jekyll, pp. xiv+ 148. Size 6 x 9¼ inches. Price \$3.75, net. Imported by Charles Scribner's Sons, New York.

† The Commuter's Garden Record. Compiled and designed by Amy Carol Rand, and published by H. M. Caldwell Co., New York and Boston.

by month and tables by which to plant many kinds of flowers. On the pages of the latter half of the book are printed green trellises overgrown with pink flowers, the white spaces between the bars being designed to receive entries of the plantings. It is a pretty album made for jotting down the notes of a pleasant recreation.

MORE SERIOUS GARDEN ACCOUNTS* MR. LORING UNDERWOOD provides a page for each day of

the year with blank spaces in which to write the names of plants started on their way to bloom, with comments on the weather, and the expense involved. Provision is made for a record covering four years so that the gardener may profit by his own past experience. Each page also contains short comments and helpful suggestions, which are indexed at the end of the book for reference to any particular information desired. This index is ingenious and useful. It lists the plants alphabetically by their common names and refers to the date on which each variety was set in the ground, so that the methodical gardener may constantly have by him a reference book of no small value.

NEW TREE DISCOVERED

THE new locust tree discovered last year in Louisiana, near Shreveport, by Professor R. S. Cocks, of the Chair of Botany of Tulane University, has just been pronounced by C. H. Sargent, of Harvard University, to be one of the few recent discoveries of new trees in the United States.

The new tree has not yet been named, but technically it will likely be named for its discoverer, after the usual custom. It is a species of locust, and is differentiated from the two known locusts principally by its pod and seeds. The ordinary honey locust has a pod about twelve inches long, containing about twenty seeds, while the other known locust has a pod about an inch long containing one seed. The tree discovered by Professor Cocks has a pod about three inches long, with three seeds in it.

Professor Cocks' attention was called to the tree by two high school students

*A Garden Diary and Country Home Guide. A book of Garden advice and a Four Years' comparative Journal by Loring Underwood. Size 8½ x 11, price \$3.25, net. (Postpaid \$3.55.) Published by Frederick A. Stokes Co., New York.

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from Shreveport named Dixon, and last July he went to Shreveport to view it. He found several of the locusts in that locality and was convinced that he had discovered a new tree. In order to make his belief certain he sent a specimen to C. H. Sargent, in charge of trees at Harvard University, the greatest authority on American trees, and as soon as leaves were on the tree Mr. Sargent came to Louisiana and he announced that Professor Cocks was right. Louisiana has a new tree.

It is thought by Professor Cocks that additional discoveries will be made in Louisiana as soon as scientists begin to make investigations. He says very little work has been done since the war, and what he has done himself has been done at his own expense. There is no fund given by the State to conduct these investigations, as is the case in other States.

CAPTAIN HENRY LOMB

I T is with profound regret that we record the death, in Rochester, New York, on June 14th, of Captain Henry Lomb, head of the widely known Bausch & Lomb Optical Company.

Captain Lomb was born in 1828 in Hesse-Cassel, Germany. He came to the United States in 1849. After a few years' occupation as a cabinet-maker he formed a partnership with J. J. Bausch, his friend, and built up the greatest optical manufacturing establishment in the world.

Captain Lomb enlisted as a private at the outbreak of the Civil War, serving two years. He was rapidly promoted and retired at the expiration of his enlistment with the rank of captain and an honorable discharge.

He participated with his company in all the earlier campaigns and battles of the Army of the Potomac. Always since those historic days he has taken a deep interest in the affairs and reunions of the veterans, and none will more sincerely mourn his departure than his old comrades of the Union armies.

There was never in his manner the slightest suggestion of self-consciousness over his genuine importance as a business man or citizen. His anxiety to efface himself and promote some one of the many causes in which he was interested could not be mistaken or doubted.

For the convenience of subscribers our Subscription Department will receive subscriptions for all magazines and periodicals at the publisher's price.

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THE DE LA GUERRA MANSION

THE glamor of romance and the mysterious influence of antiquity cling to the old home of Don José Antonia de la Guerra, the Spanish grandee who was the first military commandant under Spanish rule of what is now California. The house is still standing in Santa Barbara and the hand-made tile of the roof as well as the paving tile of the corridors are in most part still serving their purposes. Its quaint furnishings and its historical associations are written of by Catherine Robertson Hamlin and photographs are reproduced which tell of much that is unwritten in the text.

THE TREATMENT OF COLONIAL HALLS

Myrtle Hyde Darling contributes an interesting paper in which she describes the development of the entrance hall and its reaching the full height of its artistic triumph in the years following the Revolution. She describes and illustrates several charming examples of the genuinely artistic finishing of the stairways and halls of that period, which plainly indicate the conscientious work of the artisans of the times both in design and execution.

TYPICAL LIGHTING FIXTURES OF THE TWENTIETH CENTURY

Elizabeth Foster writes entertainingly and helpfully of "Typical Lighting Fixtures of the Twentieth Century." The question of the selection of appropriate fixtures for the various rooms of a house, is one which is not easily settled without some guidance from an experienced person. This article will supply help which will be applicable to many types of houses built to-day.

MODERN WALL COVERINGS

"Modern Wall Coverings" is an article which will be found of particular and timely interest. This will be fully illustrated. The article is from the pen of Mrs. Louise King who is a recognized authority in this line.

THE SMALL HOUSE WHICH IS GOOD

A house which is particularly good though not so small is described by Rev. George H. Ottaway. It is called "The Manse." The architect, Mr. C. E. Barott has evolved a plan which is very commodious and livable and enclosed it with a design at once picturesque and inviting. Details of cost of the house, as well as of its furnishings, are given in tabular form which will prove to be useful guides to others about to build or furnish.

JAPANESE GARDENS IN AMERICA

The second garden to be described by Mrs. Phebe Westcott Humphreys in this series is that of Mr. Charles T. Pilling at Lansdowne, Pa. In a most fascinating way she describes the beauties of green draperies of trailing growths, of boulder outlined creeks and ponds, of the Wistaria arbors hung with vines and masses of the pendulous blooms, of the brilliant maples and azaleas which clothe the sides of the miniature mountains; all providing sufficient excuse for the presence of the many shaped lanterns to light the secluded walks among these dense growths. Charming photographs illustrate the text.

REPAIRS BY THE ROADSIDE

In an interesting recital of the things that may happen to the motorist en route, Mr. Fred D. Taylor suggests useful expedients to employ in dealing with them when they arise. The careful man however will find most useful his suggestions of what to do before starting so as to minimize the chance of trouble on the way, exemplifying the old adage, "An ounce of prevention is worth a pound of cure."

SOME TREASURES OF A COLLECTOR

Under the above caption a series of illustrations of Old Furniture, Old Silver, Pewter, Pottery, China, etc., will be published from time to time with detailed descriptive matter regarding the individual pieces. In the October issue, some fine old pieces in the collection of Mr. J. L. Schwartz, will be illustrated. These with many others are housed in his beautiful home "Hillcrest," Port Hope, Ontario. Each piece is authenticated.

FURNISHING A HOUSE OF SEVEN ROOMS FOR \$1500

In the October number, will appear the initial article of a series written by a decorator, under the heading of "Furnishing a House of Seven Rooms for \$1500." This will include wall decorations, floor coverings and all furniture, the house comprising a living-room, dining-room, two bedrooms, nursery, bath and kitchen. Each article will deal with a single room, beginning with the living-room. The suggestions offered will be absolutely practical and the prices quoted, correct.

DOMESTIC RUGS

H. James Johnson writes of "Domestic Rugs," handling his subject in a way which is most interesting and practical as it lays before the readers careful descriptions illustrated with cuts of rugs now to be found upon which definite prices are quoted.

Free Advice on Decoration

HE unprecedented growth of our Correspondence Department has necessitated the opening of a new Department which will be devoted to the interest of those who are building, decorating or furnishing their homes. House Garden now offers its readers a House Finishing, Decorating, Furnishing and Purchasing Service which is complete in detail, thoroughly practical and absolutely free. Full color suggestions for the exterior of the house will be supplied with recommendations of proper materials to obtain the results. For the interior, the treatment of standing woodwork and floors, the selection of tiles, hardware and fixtures will be considered and specifically recommended, with the addresses of firms from whom these goods may be obtained. Samples of wall coverings and drapery materials will be sent and selections of rugs and furniture made. When desired, the goods will be purchased and shipped to the inquirer; the lowest retail prices are quoted on all materials.

This Department of Decoration is under the direction of MARGARET GREENLEAF, whose successful work as an interior Designer and Decorator is well known.

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CROSSES ON A MOSCOW CHURCH

ONSIDERABLE interest was aroused at Moscow by the ceremony of re-erecting the huge crosses surmounting the cupolas of the Church of the Ascension, where the czars are crowned, in the Kremlin. The crosses are of copper, thickly overlaid with gold, and the largest one, on the central dome, contains inside the copper cross a very ancient wooden one, supposed to have existed long before the foundation of the church. The entire fabric has been renovated and restored. In all, a surface of six hundred square yards, there being five cupolas, has been covered with goldleaf, the total weight of which is about sixteen pounds .- London Standard.

SWAINSONA is an excellent thing for cutting at any time of the year. More than likely numerous cuttings will be now available; a number of these should be put in the sand to root. Care should be taken that they do not wilt at any time and temporary shading will be necessary to avoid that.

Primulas and Cinerarias in frames outdoors need constant attention, so much so in fact that it may be fully as well to remove them to a cool wellventilated greenhouse where they can be looked after properly with less trouble than outside. One important essential in the growing of these plants is to keep them supplied with pot room from the start until they are in their flowering pots and for that reason every plant needing a shift should be immediately accommodated.

Hydrangeas growing in the ground outdoors may soon be potted in good rich soil, always allowing liberal accommodation for the roots of the plants to develop, because only by so doing can healthy plants with large flowers be obtained. Plants in pots outdoors all summer will from now on be rapidly getting into a condition favorable for forcing.

There need be no hurry getting these under cover yet a-while, because the longer they can be allowed to remain outside in safety from frost the better condition they will be in. Hvdrangeas need a thorough ripening of their wood before being temporarily stored away to rest to fit them for forcing in early spring for Easter sales .- Florists' Exchange.

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VOL. XIV

SEPTEMBER, 1908

No. 3

Birmingham and Highbury

BY ELIZABETH PRESCOTT LAWRENCE

B^{IRMINGHAM} is a city of many interests, both for its various manufactories and because it is the home of the Right Honorable Joseph Chamberlain, M. P.

The exact date of the earliest settlement is not known, but research proves that this metropolis of the midlands was in existence during the Saxon period, and if we could look back through all the centuries, we should probably find that the first clearing had been made on the outskirts of that great forest whose depths no conquerors dared penetrate—the Forest of Arden. History has it that in the middle of the seventh century the town was started by the Beormingas or Bermings, and from them originated the present name of Birmingham, as Ham means home, and Bermings is a patronymic or family name. Therefore the translation would signify the "home of the Bermings," which seems to make the name of the town far more interesting than when it first strikes the eye or ear of visitor and tourist.

The last Saxon to hold the town was Ulwine, in the time of Edward the Confessor, and from him it was taken by the conquering Normans.

The Forest of Arden lay between Leicestershire on the east, the Severn valley on the west, Cannock chase on the north, and Evesham and Rugby on the south.

There is much romance and history connected



HIGHBURY, THE RESIDENCE OF THE RIGHT HONORABLE JOSEPH CHAMBERLAIN, M. P.

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with it, and yet it is associated chiefly with modern times and prosperous manufactories in the minds of those who know of it casually and have not gone back into its past.

In the first part of the seventeenth century, Sir Thomas Holte commenced the building of Aston Hall, the largest and most imposing structure in the neighborhood of Birmingham. The architect is not known, but supposition has it that he was Inigo Jones, also the designer of Crewe and Dorfold Halls.

It was so situated as to command an extensive view in every di-

rection, and the beauty of the position was greatly enhanced by the magnificent avenue of Spanish chestnuts which led from the Lichfield road to the eastern entrance of the Hall. Out of compliment to the much petted and courted queen who was then



THE LIBRARY-HIGHBURY

reigning, it was built in the form of the letter E, facing the east, and enclosing three sides of a courtyard. The interior contains superb staircases and fireplaces, and rooms of beautiful proportions which have served as models for many modern buildings.



THE HALL-HIGHBURY

Worthy of notice is the original entrance of the park, known as "Church Lodge," on account of being opposite the old Parish Church, and consisting of a central gateway between two smaller ones, which, in their turn, are flanked by low, mullioned windowed buildings.

In 1642, King Charles visited Aston Hall, on his march from Shrewsbury to relieve Banbury Castle, and the family historian thus describes the scene:

"That Sabbath evening," hesays, "was a memorable season in the annals of Aston Hall. We see, in imagination, the last rays

Birmingham and Highbury



THE DRAWING-ROOM-HIGHBURY

of the setting sun, glancing athwart those mosquelike minarets whose metalled roofs yet retained their pristine freshness. We see the royal standard as it proudly floats from the highest turret, as if in defiance of all gainsayers. We hear the clash of arms, the loud flourish of martial music, the joyous ringing of the old church bells, the glad acclaim of a loyal assemblage who raise the shout which erst greeted the ear of the Jewish King; and we look on the sombre, pensive countenance of him in whose honor all this demonstration is made, as he courteously acknowledges the deferential obeisances of the assembled throng."

In 1654, Sir Thomas Holte died, and from that time on nothing of further interest occurred to add to the history of the town until the estate was broken up, and the land used as the site of a prosperous district.

The King's nephew, Prince Rupert, was sent, in the year 1642, to open communication between York and Oxford, and his passage through Birmingham was strongly resisted by the small force of Parliamentary soldiers who were stationed in the town. Various accounts are given of the battle, and the following title is to my mind most quaint: "Prince Rupert's burning love to England, discovered in Birmingham's Flames."

Among famous men whose names are connected with Birmingham is that of Dr. Samuel Johnson, who wooed and wed a Mrs. Porter of that town.

Another was John Rogers, who received his earliest religious instruction in the chapel of St. John the Baptist, and was the first martyr in the reign of Queen Mary.

Many persons are in ignorance of the fact that one of the earliest of that band of hard-working, persevering men, to whose industry and genius the England of the eighteenth century owed the rapid advance in mechanical skill and ingenuity which placed her at the head of the world, was James Watt.

Then too, William Shakespeare made many a visit to the place, as it held deep interest for him on account of its being the birthplace of his ancestors on the maternal side.

Very characteristic is an anecdote concerning the Rev. John Wesley, the founder of the Methodist



Society, who, in his endeavors to convert the people of Birmingham to his way of thinking, went through many a vicissitude. Owing to his perseverance and a faith which acknowledged no discouragement, his followers daily increased in number, until Birmingham became the head of a circuit embracing the whole county, and in August, 1787, a second chapel was built. Wesley was then over eighty years of age, but he engaged the coach



THE HOUSE FROM THE TERRACED LAWN-HIGHBURY

that ran between Manchester and Birmingham, and packed it with thirteen Methodist preachers, who started on their journey at midnight, and after various mishaps, reached their destination at seven the following evening. This indefatigable old man then stepped from the coach into the pulpit to address his waiting congregation, and at five next morning was on his way to preach at Gloucester.

It is interesting to learn how political leaders estimated Birmingham, even at that time, and we find that when a bill was brought before the House of Commons asking a license for the "New Street Theatre," it was ably defended by Burke. The famous actress, Mrs. Siddons, was then beginning her career; and it was in this theatre that her acting first drew the attention of those critics who foresaw her brilliant future, and engaged her services for the metropolis in which she reigned ever after, going from one triumph to another.

Travel in those days was accomplished by means of stage-coaches, and Mr. Gladstone complained bitterly of the miseries attendant upon the trip from Liverpool to London. "The coach inns," he says, "were so bad. The times of stopping chosen with reference to anything rather than the comfort of the passengers. I have repeatedly been turned out of the Liverpool coach, the 'Aurora' I think, at four o'clock on a winter's morning, sometimes in frost or snow, and offered breakfast, for which this was the only time allowed, while the luggage was charged upon a barrow. Behind this barrow we mournfully trudged along the streets to the other hotel,—'Castle,' or 'Albion,' or 'Hen and Chickens,' from which the sister coach was to start for the South. Such was in those days the measure of comfort deemed necessary for travelers."



MR. CHAMBERLAIN'S WALK ON THE TERRACE

all lands.

Somehow one thinks only of the picturesque concerning stage-coaches and old inns, and I like to imagine Mr. Gladstone and his friends setting out from the "Hen and Chickens" of a frosty morning, wrapped in their great coats, while the fat and smiling landlord bows an obsequious farewell.

Perhaps the most interesting account of all is given of Washington Irving, who has endeared himself to all who have read his fascinating stories. On the verge of ruin, and in a morbidly despondent frame of mind, he went to visit his brother-in-law, Henry Van Wart, who did all in his power to remove the black cloud which seemed to have settled on Irving's mind. He talked of their early days, spent together on the

banks of the Hudson, and recounted the queer stories of the people, and the weird traditions of Sleepy Hollow. Stirred to interest once more, the author retired early one night to his room, and as the thoughts poured out through his pen the story of Rip Van Winklewas created. By morning it was completed, and so delighted was Irving to find that the power for writ-



THE ROCK GARDEN-HIGHBURY

ing was still his that he shortly afterwards began that other well-known work, the "Sketch Book."

As we have come down through the centuries, we find how Birmingham has grown and prospered, year by year, and how thriving have become its many manufactories.

Names of great politicians, as well as literary geniuses, are enrolled in its records, and prominent among the former is that of one who has endeared himself to the hearts of his people by his splendid services for the town as well as for Great Britain.

In contrast to the busy, practical, work-a-day aspect of Birmingham, are the grounds and orchid houses of Mr. Chamberlain, for the statesman loves flowers, and his favorite orchids have now become world famous.

Many narrow paths wind in and out among the gardens, of which there are four varieties.

electric bulbs, hidden under the vines drooping from above, and among the dark greens of ferns and leaves, sparkle like myriad jewels. The light fades slowly once more into soft darkness, broken here and there by the fitful rays of the lady moon, revealing masses of what were so recently brilliant orchids, now turned by her magic into illusive, shimmering silver fairies. No sound is heard save the trickle of the fountain among the palms. The air is damp and heavily sweet. Above us and around us are the weird and beautiful shapes of countless orchids. Visions of the distant East, of the homes of these exquisite things, drift before our eyes. The moon grows fainter, and hides impatiently behind a waiting cloud, as if to remind us that human beings should be in dreamland at this hour, and leave the fays and flowers to themselves. So we turn away reluctantly, for after all we are only mortals, and this is England!

The grounds are so well planted and laid out that

one feels the peace and seclusion of the country, and

it is hard to realize that a great manufacturing city

After strolling around the duck pond, and telling

the time of day by the old sun-dial, which forms a meeting place for four paths in the Dutch garden, we

turn our footsteps houseward, across the lawn and

bowling-green, to the long line of glass which so

jealously guards its treasures,-rare products from

with subdued radiance, as we find ourselves in the

sweet tropical air of the palm room, with its glass sky

The twilight of an English June illumes all things

lies at the very gates of Highbury.

above us, and the sound of running water in our ears,which leads on and into a veritable glory of loveliness. Down this walk we move, as if in a dream from which we must all too soon awaken and as house after house discloses its wealth of flowers, we become speechless at the beauty of it all. But one's last impression should betaken at night, when dozens of tiny

A Collection of Carnivorous Plants

By S. LEONARD BASTIN

IN this twentieth century there is an ever increasing tendency to specialize, and this inclination is very evident even in our hobbies. The gardener of to-day is far more likely to take up some particular form of the art than was his forerunner a generation ago. This is perhaps all to the good, for it is proverbially difficult to do a number of things well—better work will be the result of a restricted field. One of the most interesting of the special classes in which the horticulturist may engage is the getting together of a collection of carnivorous plants. These species are all the more desirable for culture owing to the fact that their requirements are comparatively simple. With some few exceptions

nearly all may be successfully grown in a cool house where the temperature is not allowed to fall below fifty-five degrees in the winter.

Perhaps of all the insectivorous species there are none of more easy culture than the Sarracenias or sidesaddle plants; these are all perennials indigenous to the American continent. The plants require rather careful potting and there is no better composition to grow them in than one made principally of fibrous peat, with the addition of some chopped sphagnum and possibly a few pieces of charcoal. The general treatment should consist of liberal supplies of water during the growing season, with a

considerable slackening in this direction during the winter, although Sarracenias must never be allowed to become really dry. The side-saddle plants produce their lovely flowers in the springtime, and at this period the application of some liquid manure will be much appreciated. The principal species number a score or more, but in addition to these there are a number of hybrids many of which are extremely beautiful. Quite apart from the peculiar interest attached to Sarracenias on account of their fly catching propensities, the plants are all exceedingly attractive, scarcely one but what has its vase shaped leaves prettily veined at the orifice.

Indeed at any time, except perhaps in the dead

of the winter, a collection of these plants will form an attractive feature, and the appearance of the plants will be much enhanced when the fine blossoms are produced.

Although somewhat insignificant plants, all the sundews or droseras are well worth the attention of the grower. But where space is limited it is well to make a selection of the best and most beautiful species. The plants thrive well in peat and live sphagnum and it is recommended that they be placed in some of the latter at the top of the pot when being put in position. The sundews love a plentiful supply of moisture and as bog species, should never be allowed to suffer for want



A FINE NEPENTHES

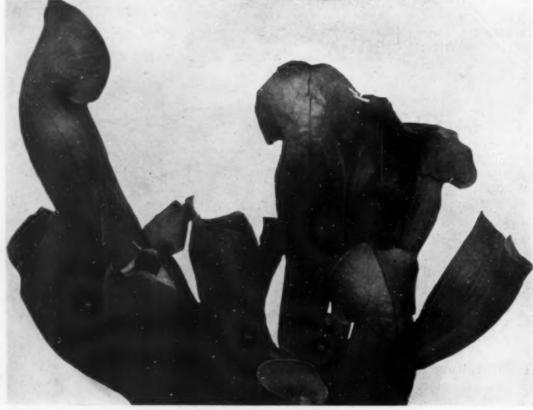
of water. In the case of any specimens which do not seem to be flourishing it is an excellent plan, and one which will often save a plant, to cover it in with a bell glass to prevent evaporation. The majority of the droseras bear clusters of charming white flowers during the summer, although several of the species produce colored blooms. In this last category may be mentioned D. filiformis with purple blossoms and D. gracile with flowers of a charming pink shade. Two good white flowered species are D. binata and D. rotundifolia both real acquisitions to any greenhouse. Of course the chief interest of these little plants consists in their remarkable leaves which are thickly covered with clubbed hairs. Should an insect settle on the leaf of a sundew the little processes at once close around the unfortunate victim, whilst at the same time a copious digestive fluid is poured forth from surface glands. It is observable that specimens of these plants which cannot get a good supply of flies will languish and sometimes die altogether.

But far more strange than the sundew is the world famed Venus's fly-trap (Dionæa muscipula) a plant which has well earned the distinction of being the most remarkable on earth. This species is a native of the bog districts of North Carolina, and no collection could be considered complete without at least

one example of this plant. The requirements of the Venus's fly-trap in the way of soil are well met with an admixture of live sphagnum moss and peat. It is desirable that particular attention be paid to see that the drainage is all right. The pot containing the specimen must be kept constantly standing in a saucer of water to insure successful growth. Even with the greatest of care the Dionæa is not very easy to grow well, and it is only under favorable circumstances that it can be induced to display its pretty white flowers. In many establishments the

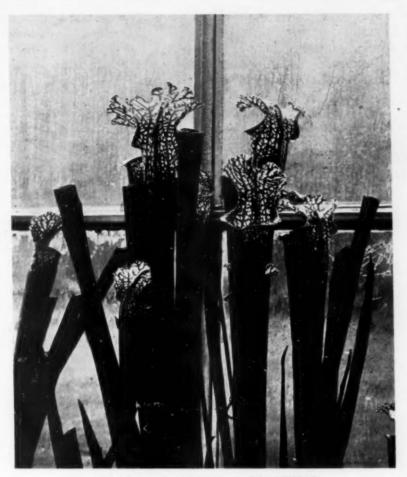


DROSERAS, SUNDEWS, ETC.



SARRACENIA SWANIANA

A Collection of Carnivorous Plants



A GROUP OF HYBRID SARRACENIAS

specimens of this plant are kept under a glass, although this is not regarded as an essential point of culture. One thing is certain, that there are few plants which will give more amusement than the Venus's fly-trap, with its hinged leaves ever ready to snap up any fly which may have the misfortune to settle upon its foliage. The great Darwin discovered that the *Dionæa* was quite as fond of small chunks of raw beef as of insects, and this seems to be a more humane way of testing the feeding powers of the plant than the administration of live flies!

A quaint little insectivorous species, the cephalotus, is a native of Australia, only to be found in a certain locality of the island continent. This plant is not very commonly seen in cultivation although it is a most curious object. Very lowly in habit the leaves formed in the shape of most complete pitchers do not rise much more than an inch above the level of the soil. As with the other carnivorous species already noted the cephalotus is well grown in peat and sphagnum considerable attention being given to insure that the drainage in the pot is quite free. This species is very readily increased by means of offshoots which should be taken when the plant is in an active state of growth. Under successful culture the

cephalotus will flower, producing small white blooms about the month of May.

Florally very attractive the pinguiculas or butterworts are perhaps the most desirable of all the smaller insectivorous plants. In these species we see evidenced a much more simple form of fly catching than in other carnivorous kinds. The fleshy leaves are mostly covered with small glandular hairs, and on their surface secrete a sticky fluid which catches the insects very much in the way that an ordinary fly paper does. The same composition of



A FINE COLLECTION OF NEPENTHES

soil as that used for the sundews will suit the butterworts very well, and the plants require to be very carefully potted. It must be borne in mind that the water supply should be liberal all the year round and must not be slackened at all, that is if the drainage is good. The most glorious of all the species is *P. caudata*, a grand plant producing fine clusters of rich carmine flowers in the fall. Other good kinds are *P. alpina* and *P. grandiflora*, the former with white and yellow blooms, the latter with flowers of a charming violet shade. There are several other varieties all of which are worth possessing if room can be found for their accommodation.

A fine handsome pitcher plant is Darlingtonia Californica with strange hooded tubular leaves. This species is closely allied to the Sarracenias and will grow well under similar conditions of culture. It

will be found to be fairly easy of propagation if divisions of strong plants are made in the springtime, though these will require a little nursing until they are fully established. The Darlingtonia likes plenty of water during the summer, and thrives best where the atmosphere is in a humid state at

winter and will of course range considerably above this during the summer. It is said that it is a good plan when five or six leaves have been produced to pinch out any further shoots; better pitchers will result from this treatment.

> There are many fine species and hybrids of *nepenthes* practically any of which are worth having. The finest of

THE VENUS'S FLY-TRAP-Dionæa muscipula

this season. When the plants are of good size they will produce their greenish yellow flowers in some profusion and these are decidedly attractive. *Darlingtonias* are insatiable in their appetite for flies, and it has been frequently observed in a wild state with its huge pitchers simply full up to the top with dead insects, but fortunately the well being of the plants is not entirely dependent upon such an unpleasant condition.

It may be said at once that it is quite useless to attempt the culture of the tropical *nepenthes* unless a stove is at hand. But provided the suitable conditions can be supplied there are scarcely any plants available for warm house treatment which are at once so interesting and attractive. The curious pitcher-like contrivances produced at the ends of the leaves are so varied in size and shape, so diverse in color and markings, as to be almost bewildering. The only practicable way to grow *nepenthes* is in baskets suspended from the roof of the house, where their leaves may have a good chance to develop all is N. rajah, a species producing enormous purple pitchers a foot in length. This is somewhat a rarity, but there are any number of more common forms with pitchers varying from six to ten inches in size.

the curious appendages. Nothing in the way of

overcrowding is permissible, and this has accounted

for many failures in the cultivation of these handsome

plants. The soil in which to plant nepenthes should

be carefully compounded of one part fibrous loam,

and two parts each fibrous peat and sphagnum moss.

In addition a fair proportion of charcoal and broken

crock should be worked into the mould. Perfect

drainage in the baskets is essential and without strict

attention to this success is well nigh impossible.

Throughout the whole of their growth, the nepenthes

will require a moist atmosphere and an abundance of water at their roots from May until October.

appreciated. As regards the temperature requisite,

this must never fall below sixty degrees even in the

During this time daily syringing will be much

TRAILING ARBUTUS

THE lovely trailing arbutus of the woods, Epigæa repens, can be successfully grown in the rock and fern garden, where conditions are as near to that of the woods as possible. Select young plants, and take up with some of the soil; plant in a shady spot where there is perfect drainage (a dry sandy soil is preferable) and cover with sphagnum moss and keep moist; allow this moss to remain, and after some weeks new leaves will be noticed peeping through; by the end of summer it will be quite established, and a covering of leaves and litter for the winter should be given as a matter of protection.

New York's Improved Tenements

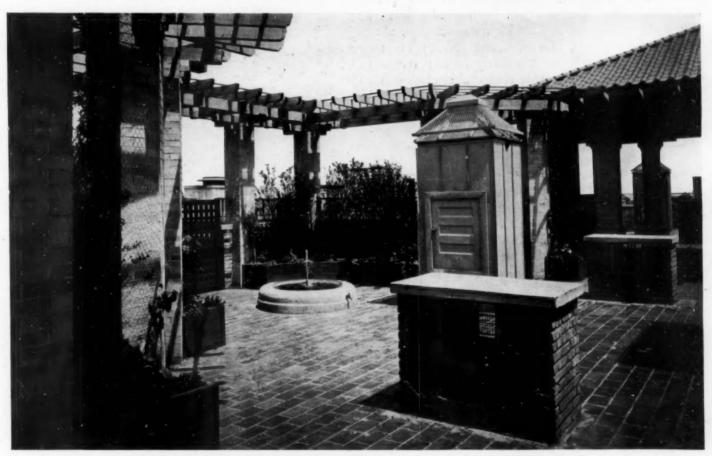
BY JOHN W. RUSSELL

PART II

(Continued from the July Issue.)

THE Tenement House Act of 1901 set a standard of construction closely approximating in many respects to that of the model tenement already built by private enterprise. The benefits of the act are traceable distinctly to the philanthropic and intelligent investigations and experiments of those who had to fight against inveterate prejudices and selfish interests. As with other great reforms, the protests of sufferers and victims were useless until the intelligent sympathy of the discerning few took a practical shape and evolved a workable plan.

In March, 1896, the New York Association for Improving the Condition of the Poor held an important conference on improved housing, and this resulted in the organization of an Improved Housing Council, one of whose committees was that on Model Apartment Houses. Mr. Richard Watson Gilder was chairman of the Improved Housing Council, and Mr. Joseph S. Auerbach was chairman of the committee on Model Apartment Houses. Before this, the Improved Dwellings Company of Brooklyn, had been organized by Mr. Alfred T. White, former Commissioner of City Works for Brooklyn, who began building model tenement houses nearly thirtyfive years ago and has the high honor of being the pioneer of such construction in the United States. Other organizations were the Improved Dwelling Association and the Tenement House Building Company of New York. It was the aim of all these organizations to provide the best obtainable dwellings on a basis that combined philanthropy with a moderate but assured return on the investment, none of them was started as a purely business enterprise with the object of making as much money as possible under the permissible scope of competition. There was behind them all an unquestionably honest desire to improve the housing conditions of city wage-earners;



ROOF GARDEN OF THE HENRY PHIPPS TENEMENT HOUSE, NEW YORK



HOUSES OF THE CITY AND SUBURBAN HOMES CO. "An Important Result of the Housing Reform Movement"

but their promoters were able business men, and they clearly recognized the necessity of making the new enterprises pay their way. They had foreign examples to justify them. In London the best model tenement companies were successful financially, notably the Improved Industrial Dwellings Company founded by Sir Sydney Waterlow, not to speak of others organized in Liverpool, Manchester, Newcastle-upon - Tyne, Glasgow and Edinburgh. Mr. Alfred T. White's study of London model tenements, combined with a careful consideration of New York conditions, resulted in a high-class type of building, and since his first experiments in this direction improvements have been gradually made until the main requisites of higher sanitation, abundant light and air, and domestic privacy are now considered normal and necessary in any tenement house designed to attract a respectable class of tenants.

Much difficulty was experienced in securing satisfactory architectural plans, especially as the 25 by 100 foot lot had too narrow a frontage to permit of the convenient construction of a sanitary and comfortable tenement. There was much ingenuity shown in the competitive designs submitted, and certain rules had to be rigorously complied with. The chief of these was that each room should have a free supply of fresh air from the outside, that all apartments must be self-contained, that no livingroom should have less than 144 square feet of superficial floor area and no bedroom less than seventy square feet, and that a greatly improved standard of housekeeping conveniences should be introduced. It was also required that the mode of construction approved of should permit of at least a five per cent return. Thereby the business side of the enterprise was emphasized, and, besides, it was hoped and believed that this feature would, on account of the safety of the investment attract abundant capital usually devoted to high-class securities bearing a low rate of interest.

It is no disparagement to other organizations to

say that the City and Suburban Homes Company. whose chief architect is Mr. Ernest Flagg, has embodied in its tenement buildings the best improvements. Its president, Dr. Elgin R. L. Gould, made an important study of tenement conditions in the chief cities of Europe and America, and wrote the well-known report on "The Housing of the Working People," which appeared as a special report of the United States Commission of Labor. The influence and example of this company and of the men who organized it have been a potent factor in bringing about the better conditions which have resulted in the building of more than 10,000 improved tenement houses, capable of containing more than 1,000,000 people, since the new law went into effect in January, 1002.

What kind of houses has it built and what are its distinctive principles and methods? The accompanying illustrations and plans will help to answer the first question. It will be noticed that the plans provide that every apartment is a complete home in itself, with private sanitary accommodations within the dwelling. Every room has quiet, light, and an abundance of ventilation. Staircases and stair walls are entirely fireproof. Halls and stairways are lighted and steam heated. Each two-room, threeroom, or four-room flat has steam radiators, private hall, private toilet accommodation, is well ventilated, has floors and partitions deafened between dwellings, hot water from boiler room, two porcelain tubs,



THE "TUSKEGEE" A Model Tenement for Negroes in New York

New York's Improved Tenements

large sink and drain board, large dresser with shelves, closets and drawers, plastered hanging closets instead of wooden wardrobes, gas range (no rent or deposit to be paid), quarter meter (no deposit to gas company), and storage closet in basement. All four-room flats have private baths. The saving to the tenant from having steam heat, hot water, and the use of a gas range for cooking and ironing is an important advantage. In the buildings of this company there is no suggestion of dark bedrooms, dark kitchens, dark stairs, narrow airshafts or other defects such as were the curse of the tenement house population before 1902, and whose depressing, diseasebreeding consequences are still felt in many of the buildings erected before that year.

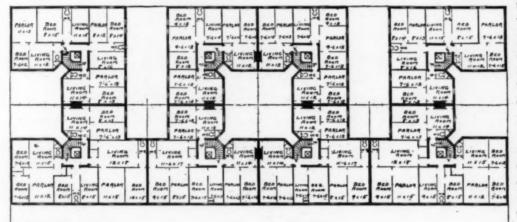
The company, in hoping to attract a far greater amount of capital to its tenement house building enterprises than is at present employed in them, has not ignored the claims of moderate and small investors. It must be admitted that, on the whole, model buildings of this kind tend to occupancy by a

higher class of tenants than under the old conditions, but by the provision for two-room apartments the best and cheapest accommodation that could be made for the poorer class of wage-earners is now offered.



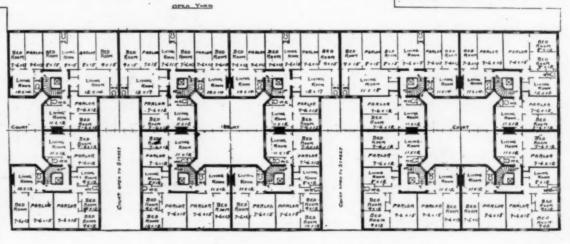
ALFRED CORNING CLARK BUILDINGS West 68th and 69th Streets, New York

movement for housing reform. It helps to make homes for those who prefer suburban life, and the City and Suburban Homes Company has made admirable provision for this growing tendency among



the better paid class of wage-earners. Its example is being followed, and promises large results. One great obstacle to the indefinite increase of suburban homes has recently been removed, and it is difficult to exaggerate the importance of that fact. Before the construction of the East River and Hudson River tunnels Manhattan was,

It is only by the much larger extension of such privileges that any widely satisfactory results can be attained. It may be truly said that, although the housing of city wageearners in suburban cottages is not strictly a part of the city tenement house problem, it is an important result of the



Floos Plan Alfred Corning Clark Buildings

for some purposes, a self-contained wedge of population with hampered rapid transit accommodations, and Greater New York was, topographically considered, a collection of communities each with a sort of independent life and local prejudices which were not very deeply interfered with by the municipal consolidation. The city was never really one, as London, or Paris or. Vienna is one, until the tunnels put the Hudson River and the East River out of the serious consideration of friends of adequate transportation. Of course additional tunnels will be built. From henceforth Greater New York can be spoken of, as

it was spoken of during the recent Exhibit of Congested Population held there in March last, as a round city, and the tides of traffic can radiate from a center instead of being turned lengthwise in Manhattan.

In every aspect in which it may be viewed, relief will be afforded by this great change to the wageearning population of New York. Pressure upon space in Manhattan will be lessened, and new life will be imparted to the whole movement for housing reform. Homewood, a semi-suburban estate owned by the City and Suburban Homes Company and situated in the borough of Brooklyn, illustrates a plan which enables persons of moderate means to acquire compartly an outgrowth of tenement house reform in New York and may in the near future assume an importance much greater than their present subordinate and limited function points to.

Tenement house reform has recently received a new impetus by the construction of the Phipps houses. These owe their origin to the gift of \$1,000,-000 by Mr. Henry Phipps to a board of trustees for the purpose of building tenements, preferably in the borough of Manhattan if it can be done advantageously, but if the land be found too high, or if building conditions are such as to threaten undue cost

of construction or un-

reasonable delay, then

in other boroughs of

the city or elsewhere.

The tenements are

planned so as to earn

about four per cent on

their cost, after allow-

ing a proper amount

for maintenance and

repairs, and the earn-

ings are to accumulate

and to be used -from

time to time in erecting

moretenements. Thus,

under the terms of the

gift, the accumulated funds will maintain a

perpetually enlarging

area of model tenement

house construction.

The interesting fact

about the Phipps

houses is that they are

a new development in

the application of

taste, beauty and con-

venience to the con-

gested habitations of

city wage-earners. The

idea of model tene-

ments is to make each



THE HENRY PHIPPS TENEMENT HOUSE, NEW YORK

fortable and independent residences. A deed is given for the premises, and an instalment mortgage for ninety per cent is taken, twenty years being allowed in which to pay it off. A uniform sum is paid in monthly, sufficient to exactly pay out the principal in twenty years with legal interest on deferred payments.

The company permits the purchaser to pay the whole or any part of his indebtedness at any time. The reason for this very liberal provision is that the object of the company is home-making, not speculative profit-seeking. Homewood and the provision for acquiring comfortable houses in that and similar settlements are here referred to because they are apartment as like a separate dwelling as possible. The first development is in sanitation and other requisites of decent and healthy living, then follow the variations of taste and beauty in decoration so far as cost of construction and the requirements of utility will permit. The accompanying illustrations show that tenement house life may be made to have an esthetic side that was not previously realized except in the forecast of the few discerning optimists, and that it is difficult to limit the possibilities of its development. The use of the word "model" in connection with tenement house construction may be said to have promoted a competition of ideals whose object is the widest attainable public benefit,

and it is safe to say that each new group of buildings will illustrate variations of use and ornament which will raise the standard of living for city wageearners far above what the most sanguine philanthropists of a generation ago could have hoped for. The Phipps houses show no radical departure in construction; their designer, Mr. Grosvenor Atterbury, has profited freely by the suggestions which were offered by the best model tenements previously built, and aims to carry the improvements in this line one step farther. It is impracticable here to give full details of the points of difference between the first of the Phipps houses

on East Thirty-first Street, near First Avenue, and the best of model tenements previously built. A description of these differences may be summarized from an article by Mr. Grosvenor Atterbury in "Charities and Commons."

The closed interior courts such as are found in almost all tenements previously erected are done away with, and they are now connected with the street by an archway. This change allows the entrance to such courts to be used by the children as a social center in place of the street curb. The new style of architecture in the Phipps houses will also avoid the barrack-like effect which ordinarily results from the arrangement of a great number of apartments in one building. Another notable improvement



A KITCHEN AND LIVING-ROOM IN ONE OF THE THREE ROOM APARTMENTS "THE FIRST AVE. ESTATE," NEW YORK



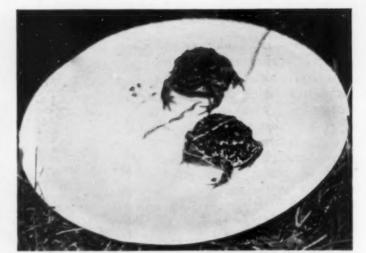
THE FIRST AVENUE ESTATE. FIRST AVE. AND 64TH ST., NEW YORK

resulting in more than the usual degree of privacy in tenements is the insertion of private vestibules and halls wherever required, so as to avoid the necessity of entering any bedroom by passing through a bedroom or even through a so-called parlor, which has commonly been done. Moreover, in order to do away with all public conveniences of this sort, a simple shower bath is inserted in combination with the toilets in every apartment where baths are not otherwise provided. There is also a considerable increase of the window surface in the majority of the living-rooms. One-half of the roof can be used as a roof-garden, and two permanent pavilions with solid roofs are provided for purposes of protection, both day and night, where tenants may sleep in the oppres-

sive heat of summer. The doing away with, as soon as possible, of the great vitiation of air in rooms illuminated by gas is provided for by the installation of an electric conduit, with a view to the use of electricity for lighting purposes whenever its cost shall be equal to that of gas and a suitable type of "demand metre" found-that is, a metre arranged to give automatically a certain amount of electricity when a coin is dropped into the slot. It is noteworthy also that a kindergarten, a play-room, accessible from the street as well as from the tenement, has been provided for the use of the tenants or kindergarten associations desiring to conduct their work in the building. The Phipps houses thus represent, in some respects, the most advanced type of tenement house construction in New York, and although the improvements embodied in them are to a certain extent tentative, there is little doubt that they will be justified by experience.



Taking a nap



Jack and Jill taking a bath. Jack has just molted

"Hop-toads"

Some of their Useful and Characteristic Qualities

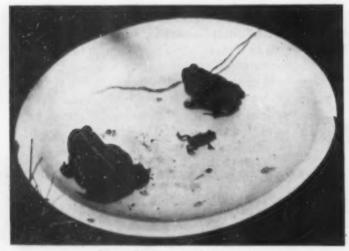
By ELLA M. BEALS

"G o to the ant, thou sluggard," was Solomon's dictum. One may find profit and pleasure in studying any of the common forms of animal life, but few offer a more attractive field than the common toad.

For many years we have made a practice of bringing home the toads that we found in any place where they might get injured. We have found them to be interesting little creatures, and of the greatest value in keeping the garden comparatively clear of insects. When people say "How nice your plants look, how do you keep the bugs away?" we answer, "It's all because there are so many toads in the yard."

The person who has never watched a toad feeding will hardly believe that a creature so small can consume such an enormous quantity of food. We have seen one eat thirty-eight currant worms in half an hour. This was in the morning after the toad had probably been feeding all night. It has been found that in every twenty-four hours a toad consumes a quantity of insect food equal to four times its stomach capacity. Only living insects are devoured: bugs, snails, centipedes, caterpillars, cut-worms; truly "All is grist that comes to their mill."

We have provided artificial shelters by laying down short pieces of board with the ends raised on stones or bricks. On hot days the arch beneath the boards will be full of toads that have sought a refuge from the heat of the sun. Cooler weather finds them in the rose-bed near by, for they seem to know that there are always some insects near a rose bush. The sun leaves the bushes about five o'clock



Pluto, Pliny and a baby toad



Jumbo climbing into my hand

"Hop-toads"



Jack is watching an angleworm

and then the hose is turned on them. At the sound of the water the thirsty toads come from all directions, and when a bug falls it is instantly devoured.

In the center of the lettuce bed there is a board with bricks under it to raise it several inches from the ground. The toads seek this shelter, and they keep the lettuce free of the slugs that formerly spoiled the finest heads.

A colony of about twenty have their homes under the grape vine. Toward night there is a procession of toads from that vicinity to the vegetable garden where there is better picking. As they hop along they "take in" all the insects in sight. In the morning they are back under the vine.

We have placed large plates around the yard and filled them with water for the birds. The toads were not long in finding out that those plates made the finest kind of bath-tubs. It is a common sight to see sparrows drinking from a plate in which one or more toads are sitting. The little "beasties" seem to enjoy the water, and splash it over their heads with their hind feet.



The toads seek shelter under the boards from the hot sun

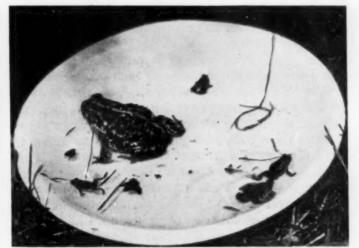
They are so tame that we thought it would be an easy matter to get some photographs, but we found them as elusive as the proverbial flea, "When we thought we had him he wasn't there."

In the picture of Jack and Jill, it will be noticed that Jack's colors are quite bright. This is because he has just shed his skin. The old skin split and he pulled it off with his forelegs. He did not seem to enjoy the performance very much. He was very quiet for some time previous and the removal of the old skin was attended by violent contortions. It seems incredible that there should be so much ignorance and superstition in regard to a creature so useful.

Every one says "If you touch a toad you'll have warts" yet we handle them freely and know them to be clean and harmless. They are not the repulsive creatures that many believe them to be and some are prettily and curiously marked. Their eyes are wonderful, of brightest brown, surrounded by what looks like a rim of gold. We protect all the "hoptoads," and feel that the good they do repays us a thousandfold.



Baby toad watching a fly



Having a good swim

Forcing Bulbs, and Bulbs Adapted to House Culture

BY EBEN E. REXFORD

THE winter forcing of bulbs is a phase of floriculture rapidly on the increase among the lover of flowers, and I am always glad to "speak a good word" for the practice, because the attempt almost always results satisfactorily. If proper care is given potted bulbs there need be but few failures.

At the head of the list of desirable bulbs for forcing I would place Lilium Harrisii, sometimes catalogued as Bermuda lily, but most commonly known as the Easter lily, because it is grown so extensively for Easter decoration. This is a most noble flower, when well grown, exquisite in its white purity and delightful in its fragrance. If care is taken to secure the best quality of bulbs, and they are given the right kind of treatment, few plants will fail to bloom well in the living-room. The smaller bulbs may give but one or two flowers, but they will be as perfect as those from larger bulbs. I would advise, however, the purchase of large-sized bulbs, as a plant having six, or eight, or ten blossoms is always vastly more effective for decorative purposes than the smaller ones, and it is no more trouble to grow it.

If flowers are wanted for Easter, bulbs should be procured and potted in September or October. It takes about six months to bring a plant into bloom under such conditions as ordinarily prevail in the average living-room. The ideal soil for this plantand for nearly all bulbous plants, for that matteris one made up of about equal parts garden loam and old, well-rotted cow-manure, with a generous amount of coarse sand worked in to insure friability. My method of planting this lily is this: I first put into the pot about an inch of broken crockery or something similar for drainage. Over this I place a layer of sphagnum moss to prevent the soil from washing down and closing the crevices in the drainage material. Then I put in about four inches of soil. Into this I press the bulbs, using to each pot as many as will cover the surface of the soil. This will be about four of the ordinary size to an eight or nine inch pot. It does not matter if they touch each other. Then I water them well, and put the pots away in a cool, dark place to remain until roots are formed. They are left there until top-growth begins, no matter how long that may be. As a general thing, however, it will be in six or seven weeks. When brought to the light, and the stalk begins to stretch up, I fill in about it with soil, and keep on doing this, as the stalk elongates, until the pot is full to within an inch of its rim.

This method of low potting is practiced because this, like all other lilies, has two sets of roots, one from the base of the bulb, and another from its stalk, immediately above the bulb. By putting the bulb low in the pot we provided soil for both sets of roots to develop in, which would not be the case if the bulbs were planted near the surface.

Next to the Bermuda lily in desirability as a good winter-bloomer I would place the narcissus, that flower

> "that comes before the swallow dares and takes the winds of March with beauty."

We have very few flowers, if any, richer in color than such varieties as Trumpet Major, Van Sion, Empress and Hersfeldii, all in cloth of gold, or gold and creamy white, and Poeticus, or poet's narcissus, pure white with crimson-bordered cup. These, with Paper White, a standard old sort, for forcing, enable us to brighten the windows of our homes in winter with the best representatives of a large family of plants which has enjoyed almost as much popularity as the rose. If I were obliged to choose but one from the list mentioned, I think I would decide on Van Sion, but I would much dislike to go without the others, for all are royally beautiful, and each variety has some charming peculiarity which the others do not have.

In potting the narcissus, I make use of seven and eight inch pots, and crowd as many bulbs into the soil as the pot will accommodate.

As a general thing, this will give you eight or nine bulbs to a pot. I find that by thus massing the bulbs, a much stronger show of color is secured than where but two or three bulbs are planted in each pot. It also economizes space, as well as labor in caring for the plants. There are no bad effects resulting from close planting, because a soil prepared as heretofore advised is amply rich enough to fully develop the flowers from as many bulbs as can be crowded into a pot.

Third on the list for winter forcing I would place the hyacinth. The most satisfactory variety, all things considered, is the Roman. This for several reasons: It is almost sure to bloom. Each bulb will send up several flower-stalks. Its flowers are loosely arranged along the stem, giving it a much more graceful appearance than those of the ordinary variety. It is excellent for cutting. To secure the utmost satisfaction from it I put as many as fifteen or twenty bulbs in an earthen pan six inches deep and about fourteen inches across. This gives an almost solid mass of flowers and foliage. A pan of Romans in full bloom is very effective for the decoration of the home or church. Florists offer us this variety in blue, yellow, and pink, but the whites are the only ones I would recommend. The colors of the others are dingy.

The Holland hyacinth is easily forced. I prefer the single kind, for the reason that its flowers are less prim and formal than those of the double ones, which are so thickly crowded along the stalk that all individuality is lost.

I have never been very successful in forcing tulips. The early single ones bloom fairly well, but the double kinds, and the late single ones, seldom develop satisfactorily under the conditions which prevail in the living-room.

In potting narcissus, hyacinth and tulip, I simply press the bulbs down well into the soil, leaving the upper portion uncovered.

It is always advisable to procure bulbs early in the season—in September, if possible—and to pot some of them as soon as received. These for early flowering. If some are potted at intervals of ten days or two weeks, a succession may be had which will pretty nearly cover the entire winter. Those not potted immediately should be well wrapped in thick paper and stored in a dark, cool place until needed. This to prevent the evaporation of moisture stored in their scales. A bulb exposed to light and air soon becomes flabby, and not much can be expected from it after this condition sets in.

Many are under the impression that it is not really necessary to put potted bulbs away in a dark, cool place for a time after potting. But this is one of the important items to be considered. A bulb so treated will form roots without making much, if any, growth of top, this latter stage of development being dependent largely on warmth and light. Unless a bulb has strong roots it lacks ability to supply its top with sufficient nourishment to bring about proper development. If we were to place a potted bulb in the window immediately after potting, the influence of warmth and light would stimulate it to attempt topgrowth before roots had formed-or while they were forming-and the result would be disastrous in most cases. A period of several weeks in a place where the temperature is low, and from which light is excluded is one of the chief essentials of success. Very little water will be required during this period. Examine your bulbs from time to time, however, and if the soil seems to be getting quite dry, apply water enough to moisten it all through, but on no account give enough to make -and keep-it wet. Leave your bulbs in cold storage until they show that they are ready for active work by beginning to send up leaves. Then take them to the light, but do not encourage rapid development by subjecting them to much heat. A temperature

of sixty or sixty-five degrees is much better for them than a higher one.

The amaryllis is a favorite when grown successfully, and certainly it deserves popularity, for choice varieties of it are magnificent in form and coloring. But judging from the many complaints of failure which come to me, it disappoints the grower oftener than it rewards his or her efforts to grow it satisfactorily. I think most failures result from an imperfect knowledge of the habits of the plant. Most persons give it about the same amount of water the year round, thus preventing it from taking the rest. which it must have between each period of growth, in order to do itself justice. If you study the plant carefully, you will discover that it produces leaves freely for a time, and then ceases to grow. By and by there will be another production of leaves, followed by another period of inactivity. A continuous supply of water prevents the plant from becoming fully dormant between each period of growth, and this is just what causes the mischief. By withholding water, and allowing the soil to become almost dry, the plant apparently stands still for a time. It is really preparing itself for the next growing period. Keep it in this condition until new leaves-or possibly a budappears. Then-and not till then-apply more water, and make use of fertilizers. Encourage a strong growth by generous treatment, but as soon as leaf-production ceases again withhold water, and let the plant rest until such a time as it shows a disposition to grow. By making these alternating periods of rest and growth as complete as possible, in themselves, we may feel reasonably certain of securing two or three crops of flowers each year. Give it the same kind of soil advised for the other bulbs spoken of, arrange for perfect drainage, and disturb its roots as little as possible. It is very sensitive to rootdisturbance, and often refuses to bloom for months after repotting. If a good liquid fertilizer is used it will not be necessary to repot oftener than once in two or three years. Remove the little bulblets that form about the old bulbs as soon as they appear, thus throwing all the strength of the plant into the three or four bulbs which a seven or eight inch pot will comfortably accommodate.

Vallota purpurea, sometimes known as Scarborough lily, is a fall-flowering variety of the amaryllis which the lover of really fine flowers cannot afford to be without. It increases rapidly, and a pot of it will soon have a dozen or more bulbs of flowering size. In August or September these bulbs will throw up stalks about a foot in height, each bearing from three to five flowers of the most dazzling vermilion. Unlike the variety of amaryllis first mentioned which does not take kindly to the cellar—this sort can safely be stored there from November to March. The calla, agapanthus, imantophyllum and

(Continued on Page 9, Advertising Section)



The Town and Country Club of St. Paul

Some Country Clubs of the Northwest

By MARY HODGES

L A SALLE, proudly wrapped in his "scarlet cloak edged with gold," and bearing authority from Louis XV to prosecute his plans of discovery, would surely record it as a charming spot, should he skim down the Mississippi river to-day in his birch batteau, passing the site of the "Town and Country Club of Saint Paul." A site indeed which no longer than fifty years ago was put down on a school-boy's map as "A region inhabited by Indians and Buffaloes." For here, on a spot so recently wrested from the savage that the smoke of the log fire almost lingers in the vale, has arisen, Aladdin-like, a prototype of an old world civilization.

By some whirl and eddy of wild waters and glaciers in eons past, this picturesque site was formed and the tiny springs now gurgling gladness to the thirsty golfers on the unusually beautiful links, then, no doubt, poured their greater volume into that mighty stream.

On a wooded bluff of the Mississippi-wooded with magnificent specimens of oak and elm and maple trees, was built in 1888 the first country club of the Northern Middle West; a bluff closely sodded with a grass very like the blue-grass of Kentucky; a bluff where the luxuriant kinnikinic hedge thrives —lending an added charm to a spot to which Nature was so lavish in the beginning of time.

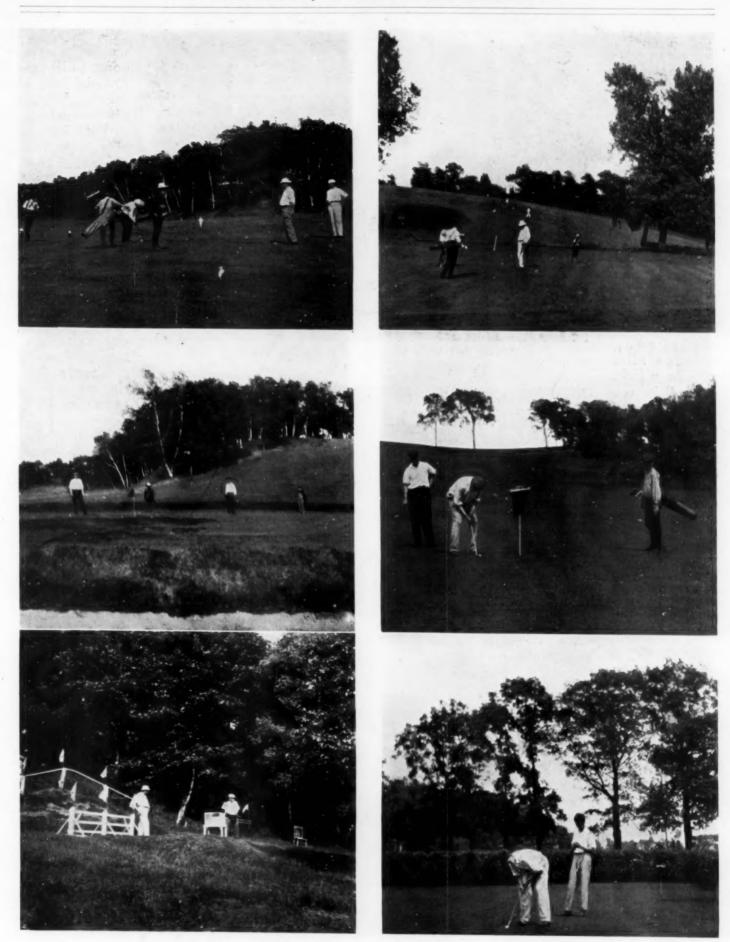
The country being new, no old estate was remodeled, as is so often the case when country clubs are projected; but in a forest almost primeval, this very artistic house was built; the interior of which is quite as attractive as the exterior.

From the high brick chimney piece in the livingroom which occupies the whole center of the building, a huge log fire blazes out in winter, a welcome quite as enticing as the grass and trees and murmuring water of summer.

The golf course, of eighteen holes, is one of the most interesting in America; the names of the holes —"The Birches," "Springs," "Shelter," "Ramparts," "Billows," "Boomerang," etc., suggesting at once the natural characteristics of the surroundings.

Skirting the course here and there are clumps of trees through which perhaps a shaded path gives a short cut to a teeing ground; a path beside which one may find perchance a crystal spring. "The Pergola" (sheltered as it is by a miniature arbor), or "The Basswood," a sparkling freshet bursting

Some Country Clubs of the Northwest



SCENES ON THE GOLF LINKS AT THE TOWN AND COUNTRY CLUB

from a hillside beneath a towering basswood tree.

Following the custom of old St. Andrew's in Scotland, the golf club of Saint Paul maintains its flock of sheep, and it would be difficult to find links better kept.

The beautiful view from the high points, the river and the sweep of rolling wooded hills with the "Twin cities" in the distance cannot be surpassed.

The Town and Country Club owes its success largely to Mr. Benjamin T. Schurmeier, to whose interest andenergymuch of its prestige is due. Rarely has a club a member who can and will give his undivided attention to its improvement, and in having Mr. Schurmeier as a memberthis club is most fortunate.

This is truly an age of outdoor sports and outdoor living; and the people more and more realize their health-giving value.

Minneapolis boasts an attractive country



THE POINT AT TOWN AND COUNTRY CLUB



THE LAFAYETTE GOLF CLUB ON THE BEACH AT MINNETONKA LAKE



" THE MINIKAHDO "

club, "The Minikahdo." The house built on Colonial lines is charmingly located on a bluff of Lake Calhoun, very like a villa of that northern lake country of Italy, with the picturesque boat house nestled under the hill.

"The Lafayette," on Lake M in ne tonka, while a country club, to be sure, is more exactly speaking, an exclusive summer resort—its membership including people from many Western cities who spend the summer there.

Shooting boxes, polo fields and kennels are not now features of these Western clubs, for the people are yet too earnest and serious in their pursuits to feel the need of them, but the clubs form the center of all social life and meet its demands. They are the nucleus around which the social fabric is being gradually woven, and when the "psychological mo-ment" comes in the process of evolution, these other things will be added.

Warming Homes by Water

BY ERNEST C. MOSES

PART II

(Continued from the August Issue.)

THE feature of cleanliness is of great importance, especially from the feminine view-point. Old-fashioned modes of heating throw out smoke, dust, dirt and gas which permeate the rooms, causing irritation, discomfort, and a large amount of extra housework in cleaning, sweeping, dusting and re-dusting. The care of stoves causes much work in lugging coal and ashes up and down stairs and litters up the house with dust and dirt. Imperfect methods of heating, imperceptibly at times, cause an amount of damage to hangings, curtains, furnishings, carpets, and wall decorations of a home which foots up to a surprising aggregate.

In the use of the water method well erected (and also the steam method) there is no dust, dirt or gas thrown into the living-rooms of the home from the heater. Compared with many ordinary methods a very large amount of household labor and damage is avoided by this method.

The water method of warming a house considered in connection with the very thorough result which it produces is the most economical. While scientific relative tests with other commonly used methods made by experts (university authorities, consulting engineers and by manufacturers) have fixed this fact and its possibilities, still its demonstration to some With reasonable care the water method of warming will produce more heat (placing it where it is most needed) and from less fuel than any other system employed. In this respect, however, the steam method is nearly as efficient and economical. The radiators employed for distribution of heat are so located that an ample degree of warmth is delivered positively to each room. In the rooms exposed to severe or frequent winds which are the great opposing force to the beneficial effects of warming apparatus, the delivery of heat from the water circulating through the radiator is not unfavorably affected by winds or by inner currents. Therefore, the supply of heat for each room is constant, inasmuch as it is scientifically calculated for each room with due respect to its size, its use and exposure to the weather. In the use of those methods which lack the positiveness of the water and the steam methods, outer and inner currents often draw from and interfere with the heating of the rooms on the windward side of a building. The water method which employs the use of radiators placed near the outside walls distributes warmth independently of air currents or exposure, insuring a uniform condition of comfort to all rooms.

The necessary apparatus is very simple and easily managed. As the temperature of the water

extent depends upon the intelligence applied to operating the heater. The method possesses possibilities easily developed and expert mechanical intelligence is not required to maintain the apparatus. The ordinary water heating outfit is as simple to run as a parlor stove. To bring out the best results it is only necessary to apply a few simple, common sense rules.



HOME OF EX-GOVERNOR YATES, SPRINGFIELD, ILL. Warmed by Hot Water System

which circulates through the heater and the radiator is about the same, proper attention to the dampers of the heater will maintain a degree of warmth just sufficient for the weather prevailing-a low fire for mild weather graded up to a full fire in extreme weather. In this respect the water method is superior to all other methods.

There are several very ingenious appliances in

the market which automatically regulate the boiler. Most heating contractors have illustrated catalogues which explain these fuel saving devices. They are influenced by either the temperature of the water in the heater, or in the temperature of the air in a room in which the degree of warmth is made the standard for adjustment. These



RESIDENCE OF A. D. BRANDEIS, OMAHA, NEB. Warmed by Hot Water System

regulators can be set and maintained at a stated temperature and subject to changes without going into the cellar.

The water warming method is the acme of safetyits normal condition is one of great assurance in this respect. The fire in the heater being surrounded by water, there is not even a remote possibility of damage from this source, while the connecting pipes or mains are heated to a point many hundred degrees less than the degree of temperature at which wood or other materials would fuse or ignite. With ordinary care explosions cannot occur, for in the most approved methods there is no confinement of the water or pressure excepting the mere hydrostatic pressure (the weight of the water standing in the pipes). The same can be said of modern steam methods, for the compounded reserve strength of the metal used and the provisions for self-acting relief at a very low pressure cut out all insecurity or hazard.

Many people seem to think that the house must be connected with city or town water pipes running through the street in order to have a water heating outfit. This is not so. The outfit can be filled with water by a hand forcing pump (costing a few dollars) connected to the supply pipes in cellar, if the house has a water storage tank in the attic or cellar cistern. If not so supplied, the outfit can be filled by the pailful through a funnel on the expansion tank, and when so filled it is not necessary to refill for several years. In case the house is vacated in the winter the water can all be drawn off and this will prevent freezing up.

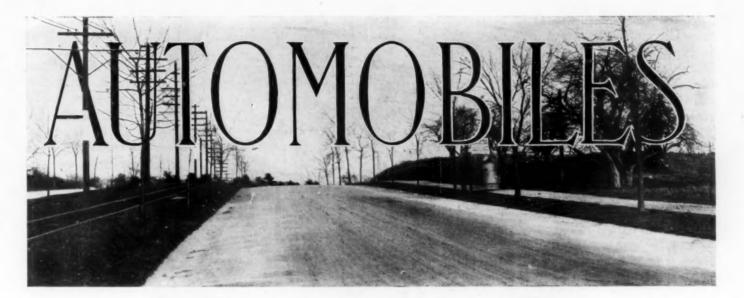
Recent years have witnessed a very noteworthy evolution in the design and construction of the radiators utilized for the distribution of warmth. Oldfashioned radiators (a few of which are still in use and creating very poor ideals of the true aspect of modern productions) were none too welcome to persons of difficult to keep in tidy appearance. Often these radiators were capped with tops or surrounded by iron or brass screens which mitigated the unpleasant visual effects at an expense of their efficiency, by retarding a free circulation of air around and through them and making them difficult to clean.

There are highly finished patterns of radiators in the market to-day which please the most particular free from dust lodging surfaces and in form so graceful in outline and so artistic in design that they harmonize with and decorate any apartment in which they may be placed. Some of the best of these modern productions are finished as smooth as bronze and are highly perfected works in iron. Radiators five times as handsome and attractive as those made fifteen years ago can be purchased in the market to-day at two-thirds of the price.



A TYPICAL OHIO HOME Warmed by a Water Plant costing \$300

particular taste. Many of such were made almost solely with a view to the radiation of heat. Ornamentation if at all regarded was crude and inelegant. They were often made of wrought iron pipes combined with cast iron heads, tops and bases-or of very poorly moulded cast iron throughout. They were very inartistic in design and very



Where to go for a Tour

BY HARRY WILKIN PERRY

YEPTEMBER and October are the most satisfactory months for automobile touring. Thousands of motorists begin their season's wanderings in June, when vegetation is fresh, the dust is not heavy and the body and mind are in a state of vigor thoroughly to enjoy the beauties of scenery, the exhilarating motion of the machine and the oddities of character and customs met with in out-of-the-way places. Most persons, however, cannot spare time for touring in all of the summer and fall months, and for such the months of September and October offer settled weather conditions, roads that have become smooth with the summer's travel, escape from the heat and noise of the city, wonderful coloring in the autumn foliage in the mountain districts, practical freedom from mosquitoes at night in country villages and good bathing at both seaside and mountain resorts.

Vacationing by automobile differs from the usual vacation trip in the very important fact that the one is peripatetic while with the other the journey is merely a means to an end-the location is the prime consideration and the pleasure of the vacation is made or spoiled by the conditions which exist in that one spot, whether it be a camp in the mountains or a bungalow by the sea. But with the automobile the scenery and conditions are constantly changing, and the tourist need not be long enough in one place to weary of it or be annoyed by quality or monotony of diet, noisiness or impertinent curiosity of fellow hotel guests, or oppressed by the heat or humidity. In the exclusiveness and freedom from proximity of other members of humanity which the automobile offers lies one of the chief delights of touring.

The essentials of an enjoyable tour are congenial companions: a good car with good equipment, good roads, varied and attractive scenery, fair weather, good hotels and reliable road maps and guide books. The planning of a tour has much to do with its success but is in itself a pleasure. In a periodical having a national circulation no specific route can be laid out that would be available to a majority of the automobilist readers, but some general suggestions may be offered that will perhaps prove helpful to a great many.

Where to go is of course one of the first questions to arise. This must be decided individually according to circumstances. As all summer and early fall months are apt to be hot, however, a trip to the mountains or to the waterside offers the most attractive solution. There is hardly a city east of the Mississippi River from which the mountains or some large body of water cannot be reached by automobile in a trip of two or three days, and the same statement holds true of most places west of Nebraska and Kansas and north of New Mexico and Arizona. The ideal trip would embrace visits to both mountain and shore resorts, and it is the proximity of mountain and sea together with well made roads, beautiful scenery and good hotels that makes touring in the New England States so popular. Residents of Boston, New York and Philadelphia and all the intermediate cities have a decided advantage in this respect, as the seashore is directly at hand with its many excellent resorts, and the White Mountains of New Hampshire, the Berkshire Hills in Western Massachusetts, the Catskills in lower New York State, the Adirondacks and Lakes George and Champlain in upper New York State, the Green Mountains in Vermont and the Allegheny range in central Pennsylvania are all accessible by good roads. These sections are unsurpassed for touring, particularly the White Mountains and Green Mountains, because of their more northerly latitude and great altitude



TOURING THROUGH THE DELAWARE WATER GAP

which make the temperature delightfully cool and invigorating even in the hottest July and August weather. New Hampshire's range of mountains possesses the added attraction of Mount Washington, the highest peak in New England, rising to an elevation of more than six thousand feet and surrounded by a score of other bold peaks with narrow passes between. This region is the Switzerland of America and is very popular with tourists by rail as well as by motor car. Entrance to the many high-class hotels is gained by deep notches in the mountains through which dashing rivers, railroads and wagon roads make their way. From the top of Mount Washington, reached by a curious cog railroad, vessels at sea have sometimes been seen on exceptionally clear days when the summit has not its customary veil of clouds. Across the border in Maine are the Rangeley Lakes and other famous trout fishing waters.

So delightful is the White Mountain trip that it has been included in the route of the national tour of the American Automobile Association three times in four years, and the Automobile Club of America made Mount Washington the objective point of its "Ideal" pleasure tour conducted in June this year. Since the membership of the Automobile Club of America represents the concentrated essence of automobile of the mountains, with panoramas of streams, lakes, forests, rolling farm land and the rugged coast of Eastern New England.

The distance was in the neighborhood of 850 miles, and ten days were allowed for the trip which could be made comfortably in that time. The tour began at New York and followed the north shore of Long Island Sound through the old cities of Greenwich, Stamford, and Bridgeport in Connecticut; thence it followed up the beautiful Naugatuck valley to Waterbury and through the foot-hills of the Berkshires in Massachusetts, taking in the most attractive towns of the region. Cutting diagonally across the lower end of Vermont through Manchester, the route took the tourists to Sunapee Lake for a night's cool rest and thence for ninety miles through magnificent mountain scenery to Bretton Woods, in the heart of the White Mountains, where a rest of one day



Tollgate on a Pennsylvania road near Pennsville, on the route of the 1908 annual tour of the American Automobile Association

was enjoyed. The next stage was a run of eightytwo miles through the famous Crawford Notch and across the state border to Poland Springs, Me., at which popular resort another day's halt was made. From the springs the route lay almost directly south to Portland, on the Atlantic coast, thence along the coast route past Old Orchard Beach, across the Saco River and the Piscataqua River which marks the state line between Maine and New Hampshire, to

touring experience and knowl-

edge in the East,

the itinerary

mapped out for

its "ideal tour"

contains many

useful sugges-

tions to the

motorist plan-

ning a little pri-

vate trip of his own. The

route which was

selected was the

natural outcome

of the demand

of the touring

members for the

best route which

included the

varied scenery

Where to go for a Tour

Portsmouth and New Castle, made famous by the Russo-Japanese peace conference, and southward along the coast of Massachusetts to Boston. There a stop of one day was made to permit side excursions to the historic environs. From the Hub the tourists rode over some of the finest macadamized state highways in America, past beautiful coun-



Hills. Included in 1908 tour of the American Automobile Association

Such a guide book is almost indispensable to the enjoyment of a long trip, as it makes it possible to drive all day without stopping to inquire the way of the natives, whose knowledge of the roads rarely extends beyond a few miles from their own villages and whose directions at best are confusing and impossible to remember.

When plan-

try estates, through Worcester and Springfield in the Bay State and Hartford, in the Nutmeg State, to Waterbury for the night. This was the longest day's run, covering a distance of 158 miles. The last day of the trip was southward through Connecticut to the shore of Long Island Sound and back to New York.

It will be seen that this schedule provided the greatest diversity of pleasing scenery, a great mileage of excellent roads, one-day rests at most attractive summer resorts and one in Boston, night rests at places where superior hotel accommodations could be obtained, comparatively short runs where the roads were indifferent and the gradients steep, and a long run on the home trip where the roads were excellent and the land only rolling. There was plenty of sea, river and mountains in the trip,

and many large cities were passed through, so that the tourists had no occasion to put up with poor food. All of the roads traversed are shown in carefully prepared automobile guide books that describe almost every mile of the way, giving minute directions as to turns, stating the distance from one town to the next, naming the best hotels and garages and giving other valuable information desired by the motor tourist. ning a tour it is well to allow an excess of several days and not to insist upon sticking too rigidly to the schedule. The object of most tours, after all, is enjoyment, and if one finds a place that is superlatively delightful, it is wise to prolong the stay there for a day or two. Daily runs that are too long interfere with the pleasure, as long hours in the car become wearisome and fast driving prevents full enjoyment of the scenery. If there are two or more cars in the touring party they should keep well apart so that the dust raised by one will not bother the next following party and there will be no rivalry to take the lead, which develops racing, sometimes with disastrous consequences, on unfamiliar roads.

There are, of course, many good touring sections and routes besides the ones mentioned. For



An Occasional Glimpse of the Sea Makes a Touring Route Attractive

example, one of the most interesting roads in the country, both scenically and historically, is the very good highway extending westward from Philadelphia, through Lancaster, York and Gettysburg, which cities figured in both the Revolutionary War and the Civil War, and passes through a rugged mountain region. Kentucky offers some interesting touring country, although

(Continued on page 12, Advertising Section.)



The Editor wishes to extend a personal invitation to all readers of House and Garden to send to the Correspondence Department, inquiries on any matter pertaining to house finishing and furnishing. Careful consideration is given each inquiry, the letter and answer being published in due time as matters of interest to other readers. Where an early reply is desired if a stamp and self-addressed envelope are enclosed, the answer will be sent. No charge whatever is made for any advice given.

I is purposed to make the October number of HOUSE AND GARDEN of special interest to those about to furnish or decorate their homes. The many letters addressed to the editor in the past six months which have set clearly before us the individual requirements of our readers in making such selections, has influenced the make up of this House Furnishing Number.

The articles embodied in its pages will therefore be particularly directed to those among us who desire information in this field.

CORRESPONDENCE

SELECTING STAIN FOR THE EXTERIOR OF THE HOUSE

We are just completing plans for a cement and shingle house. We would be glad to have the advice of HOUSE AND GARDEN on the selection of color of stain to be used on the shingles. We had thought something of using a gray stain but find it impossible to get one that is harmonious with the natural color of the cement. We would like to have rustic columns to the porches and the trim about the windows stained the same color as shingles for upper story. What color would you advise for the roof?

Answer: We would advise a soft golden brown stain for the shingles and trim of your house, the lower part of which is cement. A lighter brown may be used for the shingled roof or a gray stain would look well there. I am mailing you addresses of manufacturers from whom you can obtain sample shingles showing these stains.

DISGUISING THE RADIATOR

As subscriber and constant reader of HOUSE AND GARDEN I look to it for help in disguising the radiators in my otherwise very attractive house. You have given me many helpful suggestions for this house but the radiator question has not troubled me until recently. The woodwork throughout will be treated with an ivory white enamel. Must I have the hideous gold finish on the radiators or is there something more attractive that I can use? There are two window seats in the living-room and hall and an alcove space in dining-room where the radiators can be placed against a six foot wainscot. I hope to hear from you promptly.

Answer: We are glad to note that this department has been of help to you and would suggest in regard to the treatment of your radiators that in all rooms where the white enamel is used for wood work a similar color be employed for the finish of the radiator. There is a product now on the market which is more lasting and holds its color better than any we have tried previously. We are pleased to send you the name of this material.

Have you considered in your dining-room using the radiator with the plate box set in the top? It is extremely convenient and not at all noticeable. These radiators may be obtained in various sizes. Since you have an alcove in which you can place your radiator you will find it will not be an objectionable feature in the room if treated as above advised with the ivory white finish. We feel with you that metallic paints are not good from a decorative viewpoint.

The window seat idea is an excellent one and is often used with great success. I am sending you the address of a firm who will supply you with full information in regard to the placing of radiators.

MIRRORS AS A DECORATIVE FEATURE IN A ROOM

Would you advise the use of many mirrors in a small apartment? I have three rooms which open together and can have a large over-mantel mirror and other mirrors placed as I may suggest. I remember seeing in some of your talks that mirrors add to the apparent size of a room.

Answer: Where mirrors are used with great discretion in small rooms they add much to the beauty (Continued on page 12, Advertising Section.)



THE HOUSE

CCORDING to the calendar, September is the first of the fall months, but in truth, it is a part of summer. North and South come now some of the loveliest days, full of sunshine vigor, and warmth. Nature at this time seems to put forth her best effort, realizing apparently, that she has almost run a season's course, and there is commonly a prodigality of beauty. Why then shut out the outdoor world, or turn to thoughts of winter ? Postpone autumnal cleaning (if you still hold to the tradition of your grandmothers and have a semiannual domestic upheaval), as long as possible, and make as few changes as you can in the appearance of the house until October. The winter is long enough as it is, and wear and tear will be saved by waiting until after the windows can be closed to get out the winter furnishings.

There are, to be sure, many little things which can be done in September that will greatly expedite matters. Such, for example, as having the curtains laundered, the carpets and rugs got down and carefully gone over, and mended, if need be. It is taken for granted, of course, that the lace and muslin curtains have all been washed when they were taken down in the spring, and have been put away rough dry, in which case all they now need is to be starched and stretched. Beware of putting too much starch in the water in which they are dipped, and take the utmost pains to see that the frames upon which they are placed are perfectly straight, for a curtain which is stiff will not hang nicely and one which is askew is a perpetual vexation.

At the last of the month it is advisable to have the awnings taken down, carefully folded and stored, as the sun's rays are no longer sufficiently direct to be unpleasant, and the late September storms are apt to do them injury. Be sure to see that they are perfectly dry when they are packed away and thus guard against mildew. In some localities screens can also be dispensed with at this time, but it is wise to retain them as long as the windows are kept continually open.

It is in September that the first cool nights come, and the first frosty evenings; when a little fire on the sitting-room hearth is genuinely welcome. It behooves

one, therefore, to have the chimneys attended to, and to have the heating plant completely overhauled. Don't wait until the furnace smokes, or the kitchen range refuses to burn, before having them attended to. Make sure now that your chimneys are free, that the flues are in repair, and the drafts working, before the necessity for use is at hand. This will mean a saving in actual cost, in inconvenience and dirt.

It is at this time, also, that the winter's supply of fuel should be got in, if it has not been already, and the cellar should be put in readiness for its reception. Have it re-whitewashed at this time by all means see that the rubbish which has accumulated during the summer is removed — and have the drains attended to. If in the evening you want a little fire to give cheeriness and take the chill off the air, try crushed coke in the grate—it is excellent for such purposes and comparatively inexpensive.

Perhaps it may be advisable also to have the chimneys pointed up, the putty around the windows renewed, the catches holding the shutters back seen to, and any shortcomings in the roof made good, in order to be prepared for the autumnal wind and rain storms. Window cords may also need renewing faucets in the kitchen and the laundry require new washers.

And why not give special thought to the laundry at this time? When the cellar is being gone over, it will be easy to do so. The walls should be repainted or whitewashed, the stove, the tubs, and the drier, examined and tested. See particularly that the floor is not damp and that the ventilation is good. These things affect both the health of the laundress and the quality of her work.

If any plaster is loose, any ceiling cracked, it should be replaced, or repaired immediately, before the carpets are down or the covers removed from the furniture. There is no dirtier work than this, and nothing more destructive to the floors and hangings than the plaster dust.

When the carpets are taken out of the storeroom and before the awnings and screens are put in have it thoroughly cleaned—the walls wiped down and well scrubbed, the cracks filled and the shelves dusted. This will eradicate chance moths as well as dust and dirt which is bound to accumulate during the summer. If any carpentry work has to be done it may be well to have some extra shelves put up in the storeroom, the pantry, or some unused closet. Perhaps, too, a window seat may be built or a fire-side settle. Built in furniture can be made very attractive and exceedingly serviceable. It is especially desirable to have such work as this done in September before new draperies are purchased, or new furnishings supplied, in order that all upholstery work can be done at once and an entire scheme of color carried out.

In September, moreover, it is wise to decide what new furnishings will be required—how each room is to be treated—and what expenditures will be warranted. These are, to be sure, the expedients of the "comfortably poor" but it is they, after all, who are the home makers, and even by the wealthy, little economies are not despised. Caring for a house and planning its arrangement are the real pleasures of ownership.

THE GARDEN

PANSY and larkspur seed should now be sown. From the seed of the pansy now sown the earliest spring blooming can be had. With the larkspur early spring growth is secured and blooms before the middle of summer.

There are many attentions the garden should receive during the month mostly, however, with regard to effects for next year. There will be days during the month when exercise in the garden will be real pleasure.

It is now the best time of the year to make a lawn where it is to be made from the seed. Fall sowing of seed will give a good covering of grass free from weeds; the spring growth will develop before the weeds get out of winter quarters. The established lawn must be given plenty of irrigation to keep it looking well during the fall months.

The ground should be kept stirred lightly about plants of all kinds. This treatment will produce marked increase of fall growth.

If there is any budding to be done it should not longer be delayed. The stock and buds are both now in the best of condition, the former containing the requisite sap while the latter are sufficiently matured for good results. Budding in the spring is seldom successful as the buds are then too tender.

Last month we had something to say about the beauties of the peony for home cultivation and promised suggestions this month as to their planting and cultivation.

First of all it must be borne in mind that the peony is an extremely gross feeder. The bed where planted cannot be made any too fertile while a moderate degree of moisture is essential to the strongest stems and most desirable flowers.

Assuming that the finest flowers are desired, like any other desirable result, adequate preparation is necessary. A good plan is to make an excavation, the desired size of the bed, some eighteen or more inches deep. A layer of from four to six inches of well-rotted or pulverized cow-manure should be put in the bottom, and well spaded in. The soil taken out should be lightened by the addition of sand, leaf-mould, and well-rotted manure in bulk about one-third of these to two-thirds of the soil. This should then be turned over sufficiently to thoroughly mix and incorporate all the ingredients in the mass. Fill up the excavation with the prepared soil, drawing it to an elevation in the center of some six or eight inches above the level of the surrounding earth.

In setting out the plants, allow sufficient room for their development into large clumps. At least three feet of space should be allowed to each plant for proper development. Place the crowns two and one-half or three inches below the surface, and firm the soil well about the roots. This being done the bed should be covered with a mulch, three or four inches thick, of strawy manure, or a mulch that contains a large percentage of decayed forest leaves.

The time for planting the peony is as early after the middle of August as the bulbs become ripened. While the planting can be continued as long as the soil can be cultivated in the fall, it should be finished by the first of November. The early planting is best; the late planting will lose a year in reaching full development. If the planting is delayed until very late it is perhaps better to wait until spring and then get them out as early as the soil can be properly worked. But all late planting as well as spring planting requires an additional year to develop into full normal growth.

The peony requires but little attention in the way of cultivation. It thrives and increases in beauty surprisingly every year with the attention which with many other plants would amount to neglect. By the third year after planting all the ground will be occupied and densely shaded by the foliage which will prevent any decided growth of weeds.

It will be well to see that sufficient moisture is supplied during spring months, April and May, when there is liable to be more or less drouth. The bed can be thoroughly saturated once or twice a week to a depth of twelve or fifteen inches by turning on the hose and allowing the water to run at will. The number of blooms will be greatly increased while the quality and size of the flowers will be much improved by these frequent drenchings in the spring months.

In the fall, after the ground has frozen cut the plants off about three inches above the surface of

(Continued on page 15, Advertising Section.)

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arden Correspondence

CONDUCTED BY W. C. EGAN

WEEPING TREES

I HAVE a weeping tree of some kind in my front yard that I found on the place when I came here, some five years ago. The tree grows up straight for about five feet when it branches out and droops towards the ground. Three years ago some of the branches commenced to grow up straight and now one side is losing its weeping character, and becoming an ordinary upright grower. Why is it? Can a tree change in its form of growth? Can you tell me the name of it? S. M. P.

There are so many forms of weeping trees that I cannot identify yours from your description. Undoubtedly the trouble with your tree is, to use a phrase common among tree men, the stock (the trunk) has run away with the graft (the weeping part). Nearly all weeping trees are grafted or budded stocks, that is, the stem is an upright form of the species, and the head or drooping part, a weeping form of the same or an allied species, the latter being budded or grafted upon the former. If you examine your tree carefully, you can probably see where the grafting took place. Look immediately under that part of the trunk from which the weeping branches start, and you will find evidence of a change in the appearance of the trunk. Sometimes it is a constriction and sometimes a swelling. Generally speaking, the species to which the trunk belongs is a stronger grower than the weeping part, and any branches emanating from it would soon outgrow the weeping part.

There is no doubt but that your tree trunk has sent out some branches below the graft, and they are monopolizing the strength of the tree. The weeping part, being deprived of its share of sap, has died back. Your tree may have been neglected too long. Cut these robber branches off close to the trunk and it may recover its weeping form.

Sometimes a shrub form of a species is grafted upon a tree form, as is the case with the *Catalpa Bungeii* and *Prunus triloba*. Weeping forms of a tree are what are called "Sports," i. e., departures from the type. Most of the colored-leaved or cut-leaved trees are sports. When a sport is discovered, if it is pleasing in appearance, it is perpetuated by the nurserymen. Sometimes these sports show themselves by a variation in one branch or part of a branch, or one may develop among a lot of seedlings as did Teas' weeping mulberry. Mr. Teas, a nurseryman, found among a large bed of seedlings one plant that instead of assuming the usual upright form, sprawled out upon the ground. He saved it, grafted it upon some trunks of the upright form and gave us the weeping mulberry of our gardens. It is a very interesting fact that the ultimate action of the same sap arising from the roots produced an upright growing branch from the trunk, but the moment its actions are at work above the graft, it produces a weeping branch.

Many rare trees are grafted just above the root, as is often River's purple beech. Garden roses are often grafted at the root, and sometimes suckers from the root spring up, and if allowed to grow destroy the part we want.

Ordinary trees have their allotted period of life and die, but their species is continued through their seed. But with sports it is different. They seldom reproduce their kind by seed, but by grafting or budding their existence is carried on indefinitely. They are in one sense a part of the original tree although that tree may have been dead a hundred years.

The top of any tree is formed of the continued growth of the life cells that had their origin at its base. So, too, are the many sports now in existence, formed of life cells that originated in the first of its kind, and may be young and vigorous while their former part may be dead and gone.

HARDY PLANTS

What is really meant by the term "hardy," as applied to plants? I have bought so-called hardy plants and they have winter killed. F. C. P.

The adjective hardy, when used in connection with any plant of a perennial nature, such as shrubs, trees, bulbs or herbaceous perennials, suggests not only a constitution vigorous enough to stand the rigors of the winter, but also an adaptability to a variety of soils and surroundings.

The butterfly weed, Asclepias tuberosa, is indigenous in the sandy slopes ten miles south of here, (Highland Park, Illinois,) but with me, in a clay loam even in well drained situations, it seldom lasts the second year, and therefore cannot be classed as

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Mantels or Chimney-Pieces

By ALICE L. SMITH

'HE importance given the chimney-piece or mantel in the architecture of the middle eighteenth century and earlier, is shown in the fact that many designers of that period devoted themselves largely to chimney-pieces.

Thomas A. Strange in his interesting book on "Woodwork and Interior Decoration in England during the Seventeenth and Eighteenth Centuries" gives excerpts from the "Chimney-piece Makers Daily Assistant, or A Treasury of New Designs for Chimney-pieces," by Thomas Milton, John Crunden and Placido Columbani. This contains a table giving proper dimensions of chimney-pieces for various sized rooms which it quaintly states "may be applied to the most plain and simple designs and gradually ascend to the grand and magnificent, antique, modern, ornamental and Gothic tastes." There follows a list of rooms in which these may be used.

Many of these suggestions may be well turned to account by the designers of to-day.

The characteristics of the architects and also of most designers of the late seventeenth and eighteenth centuries were so pronounced as to be readily identified. The work of Thomas Johns in chimney-pieces, girandoles, over-doors, etc., was decidedly rococo in type. Mathias Lock was of the same school.

Inigo Jones' study of the Italian renaissance is felt

of carved wood, which are the work of the renowned artist himself, or some of his best pupils.

The delicacy of treatment and simple dignity of line of the Adam period is brought out as completely in the chimney-piece and over-mantel decorations as in any part of their architectural detail of furnishing. Many of these old designs are partially reproduced and shown to-day in the line of mantels ready to set in place. Unfortunately this sometimes results in a mongrel mixture which is equally unsuited to rooms either modern or antique.

Washington Irving has called the hearth "the rallying place of the affection" and certainly there is no single detail of a room which adds so greatly to its beauty and livableness, and which so draws together the dwellers in the home as a cheerful open fireplace.

Therefore, the importance of the mantel and tile to-day cannot be over-estimated. A room otherwise beautiful and correct in detail and color may have all of its good points swamped by an unsuitable and inharmonious mantel. To select a design which is in accord with the general plan architectural of the room is essential. There are on the market many chimney-pieces and mantels ready to set in place. These are planned to fill the architectural requirements of various rooms of special design. The

strongly in the chimney-pieces of his designing. The close association of the wonderful artist and wood carver, Grinling Gibbons, with Sir Christopher Wren is evidenced in much of the representative work of the latter. Also in this country and in many of our fine old New England Colonial houses are beautiful chimney-pieces



Colonial mantels here reproduced, in simplicity of design and correct proportion cannot be improved. Mantels such as these would be found entirely suitable for use in rooms where the Colonial idea is dominant.

A wider field is covered by mantels of brick and tile. Many of the former are built on quaint lines suggestive of Colonial days

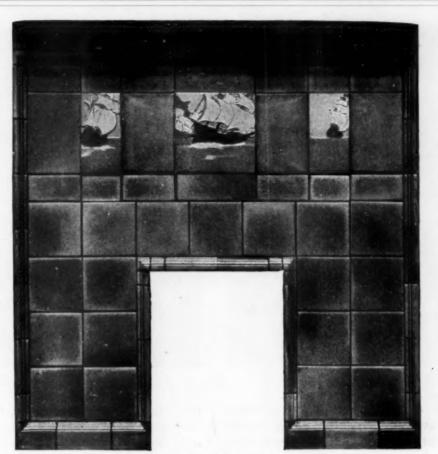
We are indebted to The Colonial Fireplace Co., Chicago; The Rookwood Pottery Co., Cincinnati, and E. A. Jackson & Brother, New York, for the accompanying illustrations

Mantels or Chimney-Pieces

and some show real mission or craftsman effects. These mantels ready to set in place, which can be bought for a reasonable sum, are found particularly suitable to houses of these types as well as to other of the vernacular houses. Especially are these mantels suited to the hall, living-room and den.

Some manufacturers of mantels will submit designs made up for special plans.

Mantels so ordered will complete the architectural detail of a room and are reasonable in price.



MANTEL FACING, EXQUISITE IN COLOR AND DESIGN

In the estimates for such mantels, tiles may or may not be included. Where the mantels are to be installed in places where there are no skilled workmen, slabbed facings should be used. That is, facings are made of the regular tile set in iron frames and arranged in three pieces so that any in regard to all-faience mantels, is that the corners turning into the fire-box proper and the sides where the returns into the wall occurs, show rounded edges known as "Bull Nose." These edges being glazed, there is no occasion for metal fireframe or finishing bands of any sort. In mantels of this kind such





forty-two inches square

ordinary workman can put them in place.

Where it is desired to bring into prominence the decorative scheme as evinced by the wall frieze about the room, a mantel of tile after the style of the one shown in the picture may be effectively introduced. These decorative tiles could be used singly or in borders in connection with the same make of tile in plain soft colors. The decorative tile comes in very excellent designs and beautiful colors. All of these tiles show the mat or dull glazed finish. A point

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A LIVING-ROOM MANTEL

treatment produces a better effect as it prevents bringing together two materials not necessarily related and which are not needed for a complete finish. The shelf of the mantel is frequently of wood like the standing woodwork of the room.

The irregularity and variation in color and texture which the mat glazed tile shows, constitutes one of



A DINING-ROOM MANTEL

the greatest charms of the material. In a very attractive nursery where the goose girl paper has been used for the upper third of the wall, the tile in the fireplace shows a design which completes the picture.

As there is no single detail of the house or its finishing which adds so much to its completed beauty as a suitable, dignified and well proportioned mantel,

it is reassuring to the man of moderate means who is about to build, to know that he can have mantels, and good mantels, at a cost proportionately less than any other decorative feature of the house.



AN EXCELLENT COLONIAL DESIGN FOR MANTEL The columns are fluted and have capitals of the Ionic order. The height and width are the same—five feet. The tile opening is forty-two inches wide and thirty-nine inches high.



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FORCING BULBS AND BULBS ADAPTED TO HOUSE CULTURE

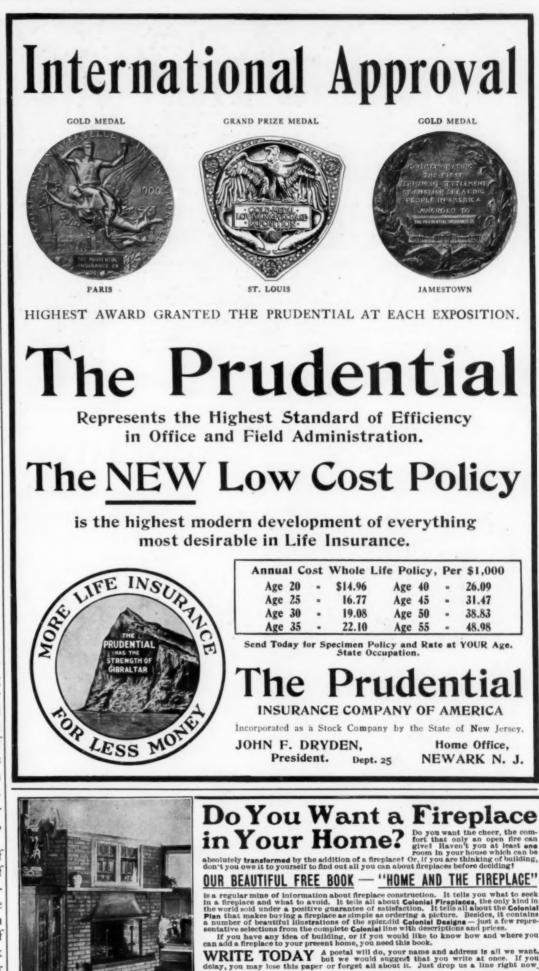
(Continued from page 91.)

tuberose — all very desirable plants for amateur culture—are generally classed among the bulbs because their flowers resemble those of the bulb family in so many respects, but neither of the four has bulbous roots. Their roots are of a fleshy, half-tuberous character.

The calla is a plant everybody admires, and almost every grower of houseplants includes it in her collection, but very often the complaint is made that it produces leaves and few, if any, flowers. I am inclined to think that this comes about, in most cases, because its owner keeps it growing, or attempting to grow, the year round. We have very few plants that will do well under such treatment.

They must have a resting-spell sometime during the year. This is in accord with a general law of Nature, and we cannot expect the plants in our windows to flourish if we ignore it. If the calla is put out of doors in June, and left there until September, turned down on its side, it will lose all its leaves, and one would quite naturally think it must be dead. But an examination of its thick root will convince you to the contrary. Repot it in a soil composed of equal parts loam, muck or other soil rich in vegetable matter, and old manure, give it water, and in a short time it will send up great, healthy leaves such as you never see on a plant kept growing the year round, and it will give you fine flowers at intervals throughout the season. The calla is a very accommodating plant, and often blooms well in winter after having been kept growing all summer, if liberally supplied with liquid fertilizer. Many persons treat it as if it were an aquatic, and keep its roots standing in water, but I have never seen good flowers from a plant so treated. The continuous use of hot water I consider harmful. It weakens the plant, and makes it lax and flabby in tissue.

The agapanthus, often called lily of the palace, has foliage resembling that of the amaryllis, though longer and narrower. It sends up a flower-stalk three or four feet tall in summer, bearing an immense cluster of lily-shaped flowers of a dainty shade of porcelain or dark lavender blue, with stripes of a lighter shade running through the petal.



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COLONIAL FIREPLACE CO., Dept. 126, 12th St. and 46th Ave., Chicago, III.



These flowers, individually, are small, but there are so many in a cluster--often fifty or sixty-that the effect is very striking. Each flower is borne on a stem an inch or two in length, and all these flowers radiate outwardly from a common center, thus giving the effect, when a plant is in full bloom, of a great, globular flower. It is of the easiest culture. Give it a soil of rich loam mixed with rotten cow-manure, plenty of water during its season of growthwhich is from April to August-and store it in the cellar from November to March, and it will ask little else at your hands. It will live for an indefinite time, increasing in profusion of flowers with age, and needing only an occasional shift to a larger pot.

Imantophyllum is a plant seldom found in the collections of the amateur gardener. But it has claims to consideration which many of the plants found there do not have. It bears a striking resemblance to Vallota purpurea in every respect save that of color. It is a tawny red, or red showing a hint of orange. This, like the agapanthus and vallota, can be wintered in the cellar safely, though if kept up it often gives a winter crop of flowers.

The tuberose would have more friends than it has at present if it were hardy enough to withstand early frosts when planted out in the garden. Comparatively few persons undertake to grow it there, therefore its merits are not generally understood. But we of the North, where frosts come early, can effect a compromise with Nature in the cultivation of this really lovely flower, and grow it in pots. So grown it will be found extremely useful for the fall decoration of the window-garden and greenhouse. Put two or three roots of it in a seven inch pot of rich sandy soil, in July, keep them well supplied with water and exposed to full sunshine during the summer and early fall, and along about September they will send up flower-stalks three or four feet high. In October and November they will give a generous crop of white flowers with thick, wax-like petals and a fragrance as heavy and rich as that of the cape jasmine or magnolia. Those who have never grown this plant in the house will find it adapted to amateur culture, and a very desirable addition to the comparatively small list of plants that bloom close on the edge of winter.

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11

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Every man and every woman who wants to have a healthful, sanitary home should send at once for a copy of this free book. Send for it now and read it.

This is the modern bathroom book. It contains over 100 beautifully illustrated pages of information that every householder should have. You want a healthful, sanitary home. This book tells you how you can secure it. You want to know whether your present sanitary conditions are what they ought to be. This book tells you what you ought to know. If you are building or remodeling your home, it gives you a mass of information that will be invaluable to you in deciding on your sanitary arrangements. "Modern Bathrooms" completely solves your sanitary problem for you. It is the most instructive and beautiful book ever issued on this subject. And there is a copy—free—for every one.

"MODERN BATHROOMS""

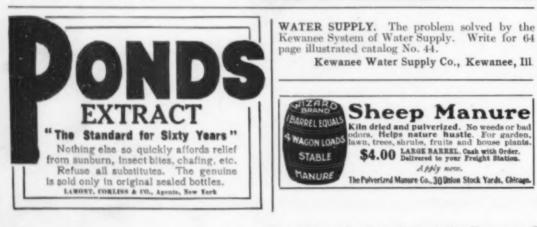
gives actual photographs and describes in detail 16 different bathroom interiors ranging in price from \$69 to \$542. No matter how much or how little you can afford for your bathroom equipment, it tells you how you can make your bathroom absolutely healthful and sanitary, and how to get the best and most valuable equipment for the least possible money.

"MODERN BATHROOMS"

also contains many beautiful illustrations of modern kitchens and laundries. It tells exactly what fixture to use for every purpose; how much these fixtures cost, and how to plan, buy and arrange them in the most economical and attractive way. Every householder should have a copy of this book. It will pay you to send for and read it.

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AUTOMOBILES Where to go for a Tour

(Continued from page 99.)

the roads are often poor. In the lake regions of Wisconsin and Minnesota there are numerous attractive summer resorts and the roads are often good. The Great Lakes offer alluring attractions for tourists in the adjacent states, who frequently penetrate into Canada from Buffalo and Detroit. The Thousand Islands and St. Lawrence region are objective points for thousands of automobilists and motor boat enthusiasts, while Montreal and Quebec are delightfully quaint and are more typically Old World cities than many European cities. Canadian roads as a rule are not boulevards like the hundreds of miles of state roads that make New Jersey, Massachusetts and Connecticut famous for touring, but they are generally fair. The Delaware Water Gap is centrally located for a great many tourists and is well worth a visit. It can be reached in a day's run from New York or Philadelphia and offers picturesque mountain and river scenery, good hotels and fair roads.

One might go on indefinitely naming sections that are suitable for pleasure touring, but any automobilist can pick them out for himself if he will but keep in mind the fundamentals that make for enjoyment of a trip—diversified and pleasing scenery, good roads, good hotel accommodations, freedom from excessive heat, and reliable guide books or road maps.

THE EDITOR'S TALKS AND CORRE-SPONDENCE

(Continued from page 100.)

of the room and may be distinctly decorative. We, however, advise you against a large over-mantel mirror as in a small room this is a very objectionable feature. If you have a paneled space between the windows of your principal room you would obtain a good effect by having a mirror set in extending the full length from picture rail to base-board. A long narrow mirror framed flat might be used over your mantel effectively. One should use much care in placing mirrors in a small room.

TILES FOR A PATIO

I desire to pave the floor of a patio with tile and would be glad to have you

In writing to advertisers please mention House and GARDEN.

advise me upon the selection of these also the probable cost of same. If you can send me the name of parties from whom I can obtain these goods I will appreciate it.

Answer: There are very attractive dull red tiles made in Wales which would be satisfactory to you for the paving of your patio. These come in sizes six by six and nine by nine. The cost is 50 cents a square foot. I have mailed you the addresses of firms from whom you can obtain these. I am also sending you the name of a material which I would recommend for the finishing of the walls in your kitchen. This is durable and washable and comes" in an excellent choice of tints.

CHOOSING A FINISH AND COLOR FOR **KITCHEN WALLS**

Please advise me as to correct color and finish to use for kitchen walls. I want something that is thoroughly hygienic and washable. I would like a light color. The woodwork in the kitchen is of yellow pine finished with a high gloss varnish which is impervious to water.

Answer: If your kitchen is not overly light I would advise the light colonial yellow or if the exposure is sunny, the leaf green would be a good choice.

HARDWARE AND FIXTURES SHOULD COMPLEMENT EACH OTHER.

I note that you make frequent reference in your editor's talks in HOUSE AND GARDEN to the great care necessary in the selection of hardware and fixtures for a house. The house I am building is a small apartment house only four stories and two apartments to the floor. These are all finished in oak woodwork stained in varying shades of brown. The detail is simple somewhat suggestive of mission although it is not exactly that. Kindly advise me the kind of fixtures and hardware to use in small entrance hall, living-room and dining-room and bedrooms.

Answer: In your halls and livingrooms we would advise fixtures and hardware of smoked old brass which shows an irregular color surface somewhat resembling greenish bronze.



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For the living-room a central light having a short shank and four crossed extending arms from which are suspended squared bells of ground glass, would be a good selection. The cost of this fixture is under \$20.00. Single side lights of the similar design should be set at either side of the mantel.

For the hall we would suggest a lantern effect hung by a chain of brass in the same finish. The cost of this would be about \$18.00. For the dining - room a single central light suspended about eighteen inches above the table would be suitable with a spreading shade set in wrought iron frame. The glass used in this to be of the heavy crinkled variety having a frosted finish. This may be obtained in dull green or a rich amber or any other color that the rooms may require. The chain of course is also of wrought iron. If your dining-rooms are small no side lights are necessary. The cost of this fixture is about \$20.00. For the bedroom simple side lights of brush brass would look well with a drop light of a single bulb with silk shade to hang over dresser. The hardware used in these rooms should be perfectly simple and rather heavy in design, the finish to be the same as that given the fixtures. In the dining-room the wrought iron should be used.

I am sending you the addresses of various firms from whom you can obtain cuts and prices.

AN EASILY CONSTRUCTED PERGOLA THE FINISH FOR SAME

We would like advice in regard to a pergola which we wish to put up in our rose garden about fifty feet from the house. The house is Georgian in architecture, though somewhat modified. We would like to have fluted columns if possible, as the front porch shows these. Will it be a very expensive matter to have these columns made or would it be better to buy them from some old building which is being torn down? This has been suggested by a friend, and we are not sure whether it is practicable or not.

Answer: We are sending you the address of a firm who will supply you with cuts showing a variety of columns. These can be used most advantageously for your pergola, as they have locked

joints and are not at all difficult to put up. This will perhaps be more satisfactory to you than old columns would be even if you were fortunate enough to find a sufficient number of these of the same height and design.

SUGGESTIONS FOR THE MONTH

(Continued from page 102.) THE GARDEN

the earth. Allow the tops to fall upon the bed and remain during the winter. Throw on top of these a liberal coating of coarse manure which should be left until spring. In the spring rake this mulch off, removing all the coarse undecayed particles from the bed and spading in the fine particles. It is necessary to exercise some care in early spring cultivation so as not to break or disturb the dormant crown buds.

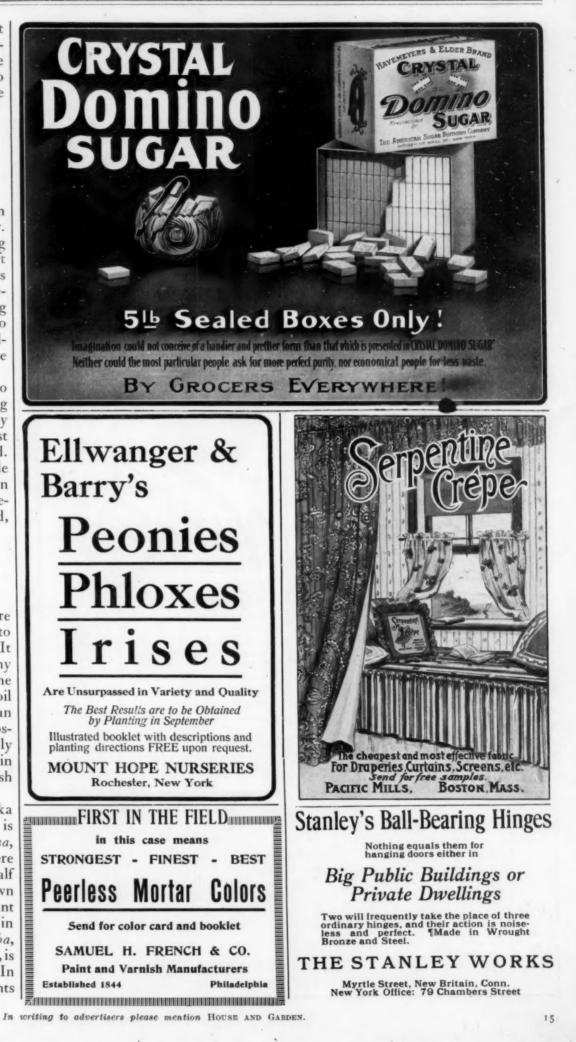
Following these suggestions as to preparation of the bed, the planting and cultivation of the peony, it only remains for the gardener to get the best of stock with which to plant the bed. There are many choice and desirable varieties and the selection must be an individual equation. Deal with a reliable nursery and get what is wanted, thereby avoiding experiments.

GARDEN CORRESPONDENCE

(Continued from page 103.)

reliably "hardy." Both situations are near Lake Michigan, and subjected to about the same climatic conditions. It is not the degrees of cold that cause my plants to disappear, but the lack the thorough underdraining a sandy soil induces. There may be, however, an unknown influence that renders it possible for one garden to grow successfully a certain plant while the same species in an adjoining estate fails to establish itself.

The common form of the Alaska daisy is not permanent with me, but is with a neighbor. Boltonia latisquama, generally succumbs the first severe winter but grows like a weed within half a mile of me. Even on one's own grounds, however small, a certain plant may fail in one situation, and succeed in another. Malva moschata, var. alba, in all situations I have tried it, but one, is apt to die out during the summer. In one situation I have had the same plants





for several years. One must remember that in bringing exotics into one's garden from nearly all quarters of the globe, all coming, perhaps, from soils not only different in their component parts, but in their condition as to moisture, shelter from winds and sun and climatic influences, but little understood, and not readily described. All these conflicting and complex conditions are brought into a new home where only one kind of soil predominates and only one condition exists. No wonder some are not hardy, even if the Arctic zone is its habitat. But it is only here and there one finds a hardy plant failing. Scores of them possess a constitution that enables them to adapt themselves to all conditions and reward us with their beauty.

REPAIRING BROKEN TREES

On an old homestead that I am fixing up for a summer home is an apple orchard of considerable age. A recent storm has broken quite a number of branches and in two instances have split a main branch at the crotch. How shall I proceed to repair damages, if it can be done? S. M. O.

From your description I understand that the branches that have split in the fork are of considerable size. Procure an iron bolt a half to three quarters of an inch in diameter and just long enough to reach through the broken parts and allow the nut to be placed on. Rather have it half an inch shorter than longer, as the hole at one side of the tree or branch may be countersunk. Bring the branch up into place and bore a hole through both pieces, same as you would to mend a broken chair and fasten in your bolt. With a sharp knife, cut away all ragged edges of the bark, making the edges of the joint smooth. If there is any opening at the top that will allow moisture to percolate into the wound, fill it with plaster of Paris. In time the wound will heal and all evidence of the bolt will be obliterated by the bark growing over it. Where the smaller branches are broken off, or even the larger ones, they cannot be repaired and must be taken off. If they are of some size, it is best to cut the full branch off, but if small, they may be cut back to some branch that may be induced to assume the duties of a leader. Where cut back

(Continued on page 18.)

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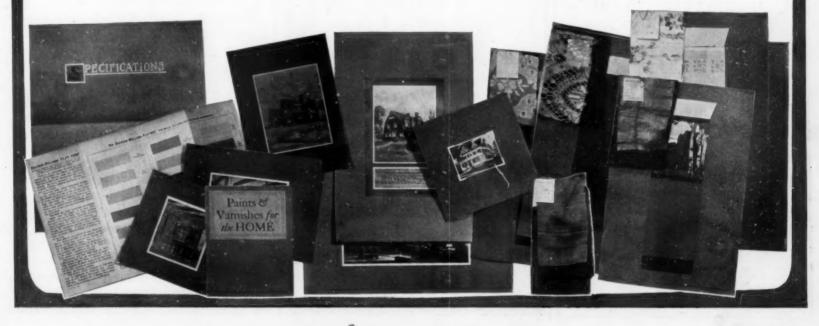
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to the main trunk or a lateral of some size is cut to a branch, cut so as to leave no stub end, that is cut close to the trunk and paint the wound. Leave smooth edges and the bark will soon cover the wound. Stub ends left on, not only look badly, but prevent the bark from growing over the wound, and they often carry their decay into the interior of the trunk.

EXTERMINATION OF PLANT LICE

What can be done to protect the foliage of the snow-ball from the attacks of lice that causes it to curl up and look disfigured? C. T. B.

Kerosene emulsion applied when the leaves unfold and a few times afterwards sometimes help them, but it is a hard matter to overcome. Repeated spraying with water under a strong pressure, using a fine nozzle, especially the rainbow sprayer, will lessen the trouble. This is a good course to pursue against many insect pests. It washes them off, often injuring them and all do not return to the plant.

THE FICUS REPENS

In the April number of HOUSE AND GARDEN you published an article on "Vines and Vine-covered Houses" in which you mentioned the *Ficus repens* vine. Will you please tell me where to procure it? I have several catalogues from florists but none of them advertise it. I will appreciate the information. I. P. C.

Henry A. Dreer, Philadelphia, catalogue the plant.

STRIPPING LEAVES FROM TREES

THERE is no better season for the planting of deciduous trees than in early autumn, although to many, the fact that the foliage is still green acts as a deterrent to the work. But to the nurseryman of the day this does not stop his work. He knows that the functions of the leaves are practically over and that as early planting makes the success of the operation assured, it is better to strip the leaves and plant the trees even at the expense of more time and perhaps of some little disadvantage to the tree in the loss of its foliage early. It is wonderful

how well deciduous trees do when planted in September and October. It is really a loss to wait until the foliage falls of its own free will, for then the freezing weather of winter is not far away and there is not time for the transplanted stock to get roothold in advance of it.—Florists' Exchange.

PRESS COMMENTS ON A BURBANK ACHIEVEMENT

AND he gave it for his opinion," wrote Swift, "that whoever could make two ears of corn, or two blades of grass, to grow upon a spot of ground where only one grew before, would deserve better of mankind, and do more essential service to his country, than the whole race of politicians put together." If this be true as a general proposition, what must Luther Burbank deserve who grows seventy-three varieties of apples on a tree which Nature designed should bear but one? To call Mr. Burbank the greatest grafter in the United States, is a compliment, not an offense.-Brooklyn Eagle.

Luther Burbank has grown seventythree different kinds of apple on one tree. It's unfortunate that trees like that didn't grow in the Garden of Eden, for then Eve couldn't have made up her mind which one to eat. On second thoughts, however, it's just as well there wasn't. Eve might have eaten them all. -New York American.

EARLY FORCING BULBS

T cannot be too often repeated that the most important consideration in the early forcing of bulbs is that of having them make sufficient progress in the formation of roots before they are excited into making top growth, by placing them in a warm temperature and exposed to light. There is very little danger of failure with bulbs of any kind if they are allowed to fairly well fill their flowering pots, or flats, with roots before they are introduced into heat. And although the exigencies of anticipated demands and other unavoidable conditions may make it necessary to hurry forcing, it is always well to start reasonably low, the better enabling the plants to stand a little rushing, if that be necessary, subsequently. It



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SILVER LAKE A

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should be carefully seen to that lilies and other bulbs, covered with soil or ashes, but without the protection of sashes outdoors, do not get too much water; it will also be necessary to examine those under cover to ascertain if they are in need of water .- Florists' Exchange.

YUCCA A TREE OR A PLANT?

HE fate of an aged woodsman of San Bernardino county, California, hangs on a judicial decision in the Federal Court, whether yucca is a tree or a plant.

When the case of R. L. Cook, charged with cutting yucca timber on government land, came up before Judge Wellborn recently, on demurrer, Assistant U. S. District Attorney McCormick admitted that he was a trifle hazy in regard to the botanical properties of yucca. He had a lot of definitions and references, but none of the authorities seemed to throw any light on the odd question.

Attorney Stevenson of San Bernardino contended that yucca is a plant, belonging to the lily family, and that it is not "timber." He maintained that his client cannot be punished for cutting down plants on government land, as the law plainly specifies that the essence of the crime is taking and disposing of timber that is valuable for commercial purposes.

The government, on the other hand, asserted that yucca is used for making surgical splints, and thus has a commercial use. The court finally ordered counsel for the defendant to present a brief, embodying his points. It appears that the Department of the Interior and the various land offices are anxious to have a test case go to the Supreme Court for final adjudication.

TARRAGONA

ALL Tarragona is expressed in those two words, ruins and the sea. Whichever way one follows it, it ends in half-hewn rock and in a new aspect of the sea, and it is built out of the ruins of a Roman colony. The Roman walls themselves, of which such considerable fragments remain, rise on the foundations of a cyclopean wall, built of vast unhewn masses of stone; the cathedral stands on the site of a Moorish mosque; a public square lined with houses, the Plaza de la Fuente, still keeps the form of the Roman circus. Most of the

houses in the old town are made out of the ruins of Roman houses; modern windows break out in solid Roman walls, left to end where ruin left them to end; Roman fountains are in the squares, Roman tombstones are built into the walls of the Archbishop's palace, fragments of triumphal arches are set into the walls about Roman gateways, the "Tower of Charles V." comes up from the tiled roof of the arsenal, and "Pilate's Tower," once part of the Palace of Augustus, is a prison. And out of all these ruins of great things there has come, for the most part, only something itself dilapidated, to which the ruins lend no splendor.-Saturday Review.

ONE DAY'S USE OF AN OLD WELL AND WHAT HAPPENED

A^S illustrating the danger of the contamination of wells by sewage, even in sparsely settled districts, Dr. Stokes told a striking incident at a recent meeting of the Maryland Board of Health. Recently the waterworks machinery of a Maryland town of 300 people broke down, and for one day water from an old well was used. Ten days later there was an outbreak of inflammatory intestinal disorders and three cases of typhoid fever resulted. The water was tested and found to contain 4,100 bacilli in a cubic centimetre-about fifteen drops. The regular water-supply contained eighty bacilli in a centimetre. Dr. Charles L. Mattfeldt, a member of the board, and also a health officer, expressed the belief that 90 per cent of all water taken from dug wells is contaminated by sewage more or less. "The construction of such wells, if not prohibited, should be regu-lated by law," he said. "No one will doubt that every town ought to provide water from a reliable source for its inhabitants, in every respect fit for domestic use, and should in every way discourage the use of shallow wells, which we know to be the most fruitful source of disease."-N. Y. Evening Post.

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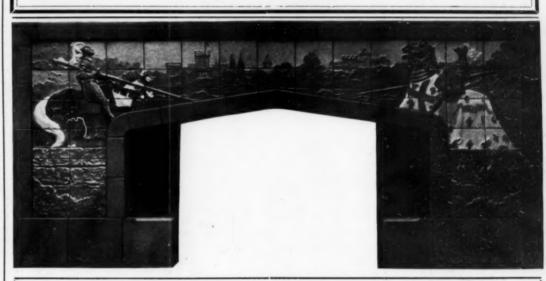
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Owing to an oversight we failed to give credit in the August issue for the remarkably fine photographs of the Benjamin Franklin Jones residence used for illustrating the article "A Summer Home at Sewickley, Pa." These photographs were from the R. W. Johnston studio of Pittsburgh.



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WHERE TO PLANT HORSE CHESTNUTS

OCCASIONALLY horse chestnuts are found as street trees, a position they are not at all fitted for. The reflection of heat from the paved street causes the foliage to burn and blight, often causing the foliage to disfigure the trees in summer. On the other hand, plant trees of it on a lawn where there is none of the trials of a street for them to undergo, and see the difference! No burning of the leaves, but trees of lovely foliage, lasting until late in autumn.

The horse chestnut delights in a moist, cool situation, but it demands coolness of soil; conditions it meets with to a great extent when it grows in sod.

The common European horse chestnut is well known to everyone, and when of mature age is one of the grandest trees extant. The double-flowered variety of it, *alba plena*, possesses all its good qualities in addition to having double flowers, which are a great merit. Single flowers are preferred by many, but there is no gainsaying that double ones are far more lasting, and in the case of the horse chestnut the panicles of blossoms last a full week longer when they are double.

The red-flowered horse chestnut is one of the most beautiful of flowering trees. It does not make as large, massive a tree as the common one; otherwise its habit of growth is similar. Where its original home is seems undetermined. It is credited to this country by European authorities, but just to what part, or where, is unknown. It is, however, a beautiful tree, its leaves being of a bright shining dark green, forming a splendid groundwork for its large panicles of bright red flowers. As both it and the other horse chestnuts are easily transplanted, this adds greatly to their popularity, as does the fact that to increase the common one from seeds and the others by budding or grafting, is a comparatively easy operation. - Florists' Exchange.

A PLANT which rivals the trailing arbutus in fragrance is the hardy evergreen, sweet daphne. This is a little shrubby plant which succeeds under practically the same conditions as azaleas and rhododendrons, and should be planted with them. In the spring it yields deliciously fragrant small pink flowers, and blooms again in September, though not quite so profusely.

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GROWING CAMPHOR TREES

ONE of our daily papers has this to say concerning camphor:

"Camphor trees won't grow profitably anywhere but in Japan. They yield nothing, even there, till they are forty years old. Then the tree is cut down, and from the whole thing—leaves, bark, trunk, branches, even roots—the camphor is distilled. The process is difficult.

"The Japs, a far-sighted people usually, made a mistake in the past, and did not preserve their camphor groves as they should. Now, in consequence, there are not enough camphor trees. But the next generation will see this deficit more than corrected; for to-day, in Japan, for every old camphor tree cut down ten young ones must be planted."

The writer of the above extract is mistaken in saying the camphor tree will not grow profitably anywhere but in Japan. It will flourish in any ordinary climate where but no more than a few degrees of frost occurs. The tree flourishes in Florida, and seedsmen there advertise seeds from their trees, and it could be. grown in other States as well. It would thrive no doubt in California and in British Columbia, and it thrives even in the extreme southern part of England. There must be a good trade already in the South for young trees, as many Southern nurserymen advertise plants in quantities, but they may be only for ornamental purposes.

At any rate, it is certain the trees could be grown profitably outside of Japan.— *Florists' Exchange*.

THE CAMPHOR TREE IN CALIFORNIA

I HAVE read with considerable interest the accounts which have recently appeared in the various horticultural journals that come to me, of the efforts the United States Department of Agriculture is making to determine whether camphor trees can be successfully grown in commercial quantities for the gum they may produce. It seems strange that the authorities at Washington have not learned ere this time that in Southern California there are trees now growing with trunks two feet in diameter at the base.

The camphor tree is not particular as to soil, growing equally well in light sandy loam or heavy clay, and does not



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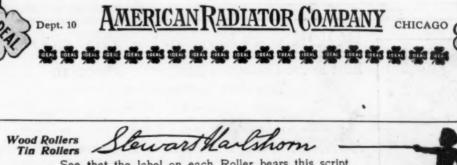
warm, with no dangerous drafts. No coal gases, soot, or ashes reach the living rooms—to menace health and destroy furnishings.

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require as much water for its best development as an English walnut. The jet black berries produced in great abundance by some trees are very pretty, while the new growth and young leaves have a pleasing color not easily described. It is one of our most beautiful ornamental evergreen trees, and will stand fifteen degrees of frost without injury.

The government officials having this matter in charge are respectfully requested to look at these subjects as they grow in this part of the countryan object lesson of what may be done in the production of camphor. -P. D.Barnhart in Florists' Exchange.

COMMENTS ON NEW BOOKS The Insect Book*

A CCORDING to the author's pref-ace, this is a little book on a great and inexhaustible subject. It makes no claim of being a complete treatise.

By treating his subject in a bright, crisp and entertaining form, the author attracts and holds the attention of the reader until thoroughly interested in the subject of insect life. It is safe to say that a majority of those who read this book will be impelled to go farther into the subject and will consult standard and scientific works devoted to insects, and perchance become so absorbed as to pursue practical studies of them for himself.

LUMBER PRODUCTIONS OF THE LAKE STATES

THE Lake States, one of the greatest forest regions that ever contributed to the lumbering activities of any country, are rapidly falling behind in timber production, according to a preliminary statement issued by the Bureau of the Census.

Statistics concerning the annual output of forest products, collected by the Bureau of the Census in co-operation with the United States Forest Service from more than 2,100 saw-mill operators in Michigan, Wisconsin and Minnesota-the big three-have shown that the cut last year was only five and one half billion feet of lumber, a big pile, yet twelve per cent less than the cut of the preceding year.

The heavy inroads made in the ex-

*The Insect Book. By W. Percival Westell, P.L.S., M.B. O.U., illustrated with photographs by R. B. Imisson, New York, John Lane Company. Price \$1.00.



ploitation of the timber resources of the large lumber States on the Great Lakes have been too much for the great forests and the amount available for cutting is getting lower each year. The decadence of the lumbering industry in this region is forcefully illustrated in the drop in the white pine cut during the past ten years. Michigan's forests of this valuable tree were the richest in the world and were often said to be inexhaustible. The folly of such a statement is shown by the report that the cut of white pine in Michigan last year was only one-fourth of what it was in 1899, only eight years before.

In lumbering the forests no thought was given to anything but immediate money returns, and consequently the countless fires running over the land, after the timber was stripped, have killed young growth over wide areas and greatly impoverished the soil. Now, 6,000,000 acres, or nearly one-sixth of the State of Michigan, known as the "pine barrens," have been thrown on the delinquent tax list and are a burden to the people. Under proper forest management this land would have been producing timber to-day. Between 1899 and last year the white pine production fell off nearly as much in Wisconsin as in Michigan. In Minnesota, the State which now contains the largest amount of virgin white pine, the decrease in the same period was nearly one-third.

Taking the three States together, pine constituted nearly forty-six per cent of the total lumber production in 1907, hemlock a little more than twentyseven per cent and maple ten per cent, the balance being made up mostly of basswood, birch, tamarack, elm, beech, oak, spruce, ash, and cedar, in the order given.

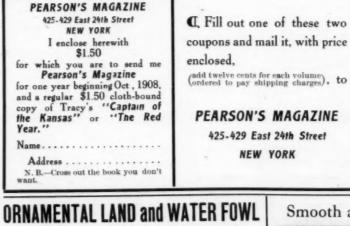
The pine is mostly white and Norway, which are grouped together under the general trade term of "northern pines." Pine made up over nine-tenths of the lumber produced in Minnesota, one-third of that produced in Wisconsin, and less than two-fifths of the total cut of Michigan.

Along with this great decrease in pine, there have been relatively as heavy decreases in the most valuable of the hardwoods, oak, elm, and ash. Little more than one-fifth as much oak was cut in the Lake States last year, for instance, as in 1899, while the cut of elm and ash To celebrate the beginning of the greatest romance printed in years, in the October number of PEAR-SON'S MAGAZINE-Louis Tracy's Great Story "THE MESSAGE"the best serial from his gifted pen that has ever appeared in any magazine, we announce this

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There Are Many Other Splendid Features

in the October STRAND, prominent among which are WINSTON SPENCER CHURCHILL'S narrative entitled "My African Journey," which deepens in interest as it progresses. "Reminiscences and Reflections" of SIR JOHN HARE, the eminent English actor, describes some highly amusing and interesting experiences in America, HARRY FURNISS, the famous caricaturist, writes about and illustrates the "Comic Side of Crime;" CAMILLE FLAMMARION, the eminent French Astronomer, contributes a wonderful article entitled "Worlds: The Dust of the Infinite;" W. W. JACOBS' story of "Salthaven" is uproariously funny; there are also some splendid short stories by popular authors; "Curiosities" still continues to be a popular feature.

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was but half of that of eight years earlier. As is always the case, the decreasing supplies of the more valuable woods have caused those once considered of little or no value to be drawn upon heavily. This has been particularly true with hemlock, so that now more hemlock than pine lumber is manufactured in Wisconsin, and twice as much hemlock as pine is cut in Michigan. There have been heavy increases in the use of maple, birch and beech within the past few years, but the maximum cut of these species is probably near at hand; and taking all of the hardwoods together, there has been a slight falling off since 1899.

SEASONABLE NOTES

Lonicera Heckrothi belongs to the section in which are included the English woodbine and the Belgian honeysuckle. The flowers are borne in the end of the shoots of the same season's growth; they are pink in the bud, becoming yellowish white when open, and they possess the sweet odor for which the other two mentioned are famed.

The heads of *Catalpa Bungei* as well as those of other standard or weeping trees, are sometimes partly broken in storms. In such cases when winter comes prune the whole head back as far as where the breaks are, then a new, uniform growth follows, re-establishing a good head.

Wax myrtle is well named—wax for the substance which covers its berries, and myrtle for its leaves, which both in appearance and fragrance remind one of those of the true myrtle of Southern Europe, Myrtus communis. Myrica cerifera is the name of the wax myrtle; it is a valuable evergreen in many respects.

It seems strange that the Paulownia is not reliably hardy in England, when it is entirely so here where our cold is of a zero nature every winter. But it shows what thorough ripening of the woods will do, for this is what our hot summers bring about; and it is a hint to plant everything of questionable hardiness to situations where ripening of the growth will have every chance.

Besides being the last shrub of the

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season to flower, its blossoms not expanding until October, the Hamamelis Virginiana, or witch-hazel, is interesting because of its habit of throwing its seeds such a distance when its pods burst open, often as far as twenty-five feet from the shrub.

A boundary line of the red twigged dogwood, *Cornus alba*, is an interesting object in the winter season. The red of the twigs is more intense in winter than at any other time, and the line of color, often when snow is on the ground, attracts much attention.

THE SERPENT SYMBOL ON THIS CONTINENT

'HE serpent symbol is prevalent all over this continent. It appears in effigies in Canada, Ohio, Illinois, and Minnesota. There are many serpent myths among the Iroquois and Algonquins. These represent the serpent as coming out of the water and fascinating men and turning them into serpents, taking them below the water, thus reminding us of the temptation. The serpent also is a water-god who antagonizes the chief god and produces a great flood. The story of the flood is always associated with the serpent as the cause. The serpent, in fact, is the source of evil. In Nicaragua and Central America the serpent is, on the other hand, a source of good. He is in reality the symbol of the rain cloud, and the crops and the seasons are dependent upon his appearance. Instead of antagonizing the chief divinity, he seems to be sailing through the air bearing the chief divinity on his back. Sometimes there are vases held in the folds of the serpent that are emptying water or rain upon the fields. In Nicaragua the serpent appears in the architecture highly wrought and sculptured with great force. There are serpents guarding the balustrades to the pyramids and other serpents covered with feathers which form the piers by the sides of the doorways to the temples. The idea is that they are coming down from the clouds, along the fronts of the temple to the ground, symbolizing rain clouds. The sacred books of the Mayas have many serpents coiled up with coils on the oases and heaps of corn in the latter. Even the hieroglyphs of the Mayas have serpents upon them, the serpent forming one part of the

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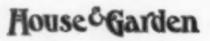
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glyph, suggesting that a phonetic alphabet grew out of the picturegraphs and the symbols. The serpent itself gives one of the elements. Among the Pueblos the serpent figured in a very interesting way. When the children were initiated and were to receive the breath of the divinity through the sacred plumes, they were prepared to enter the sacred city, which is under the water of the sacred lake. But the serpent must also be carried to the upper door of the place of worship where the children are and its mouth placed near the entrance.

Water and seed were poured through the serpent effigy. The priests below caught the water in a sacred vessel and the seed in sacred baskets and presented them to the children, teaching them that both water and seed came from the serpent, which was the symbol of the rain cloud.—The Rev. Stephen D. Peet, at the meeting of the American Association for the Advancement of Science.

CREEPING EVERGREEN EUONYMUS

FOR covering smooth stone walls, the creeping *Euonymus radi*cans is an excellent vine. Low walls of any kind have a nice appearance when clothed with this vine, its dark, small evergreen leaves contrasting well usually with the color of such walls.

When walls are high, some vine with heavier leaves looks better, the euonymus appearing too frail in such cases.

The euonymus clings closely and makes no unattached shoots, just what is wanted usually for furnishing a low wall. As a rule the plain leaved one is the better sort for the purpose, but should the fence to be covered be of a very dark color the variegated leaved one may sometimes be used to advantage. The variegated leaved one is sometimes planted in positions it does not suit, such as on plastered walls, where it has been noticed; and very much out of place it was, too!

An opinion is sometimes expressed that this euonymus is slow growing. This is a mistake. It is because of its small leaves that the impression of slowness prevails, and there is not much side growth to it for a while, but in upward growth, it should not be considered a slow grower at all; given good soil it will ascend a wall in a satisfactory manner.—Florists' Exchange.

PAINTING BY MEANS OF COMPRESSED AIR

PAINTING by means of compressed air has obtained more headway in the United States than in England, and the following information shows how the new style of decorating was applied to some buildings belonging to the Buckley & Douglas Lumber Company, which include a main building 475 feet long by 356 feet wide. The structures covered about five acres, and there was fully 1,000 "squares" or 100,000 square feet of surface to be covered with paint. Rough hemlock lumber was used in the sides of these buildings, and the problem was to cover this timber with some preservative compound as cheaply as possible. After a full consideration of various washes, a mixture of good raw linseed-oil and red oxide of iron was determined on. Bids were received from three local painters. One of these offered to furnish brushes and ladders and to apply the paint for 1s. 6d. per square; another offered to do it for 1s. 2d. if the company provided all material, and the third made a lump bid of £60 for providing labor alone. Each of these bids was reasonable, but all of the painters deemed two coats necessary and thought the season too far advanced to undertake the work at the time. In this emergency Mr. J. J. Hubbell determined to use compressed air for the work. He made his own sprayer, at a cost of \pounds_2 , and in addition provided 150 feet of 3-4 inch hose, an air-pump taken from a locomotive, and an air-reservoir, also taken from a locomotive. This latter had a capacity of 10 cubic feet and was placed near the large building and connected to the air-pump by 1-2 inch gas-pipe. Of the hose, 125 feet were to connect the nozzle with the air-reservoir, and 25 feet to connect the nozzle with the paint bucket, the latter being elevated to about the level of the nozzle. The paint came in barrels of 50 gallons each, and to each head of these barrels was screwed an iron flange with a short journal attached. The barrel was hung on these journals and revolved by a crank so as to thoroughly mix the paint, which was then drawn off two or three gallons at a time. In use the airpressure ranged from 40 pounds to 50 pounds, and as the air passed through the nozzle it sprayed the paint in a fine cloud, looking like a jet of red vapor.



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" It brings the Whole World to the Library Gable."

The October Number of The Travel Magazine opens with a remarkable article, entitled, "Strange Musicians From Strange Lands," by the well-known traveler, Oliver Bainbridge. This article deals with the barbarous music of a number of little known countries, and the illustrations made from photographs of savage and semi-savage musicians have a peculiar attraction.

Among other articles of interest, are "An Unexplored Country." by Elise West, which tells of "The Dunderbergs" and their environments. These mountains along the Hudson are hardly more than thirty miles from New York, yet they are but little visited and almost unir habited. They abound in legendary and historic interest, and also have a wealth of beautiful scenery as can be seen from the illustrations that accompany the article. There are hundreds of square miles of woodlands where no sign of human habitation or occupation is to be seen. It is strange that a section so beautiful and so wild should remain almost unvisited.

Another beautiful spot, also little known, is described by Woodruff McCully in an article on "**The Snoqualmie Falls.**" These are the largest falls in the Puget Sound country and can be easily reached from Seattle.

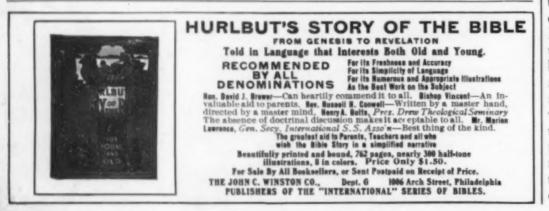
"A Day in Moville," an article by James J. O'Connell, takes the reader across the water to a little village in Ireland, very ancient and quaint, and with surroundings that are full of interest. Travelers returning to America by way of Glasgow, stop at this quaint village on their way to America.

"The Enchanted Land of the Yoho," by Katherine Louise Smith, describes the latest camping grounds for explorers and tourists. This is a new addition to the Canadian Park, the Yoho Park, 832 miles in extent and situated on the British Columbia side of the Rocky Mountains. The Yoho Valley here is regarded as one of the most beautiful vales in the world, and the magnificent mountains about it are a lure for ambitious mountaineers.

"The Witcheries of Westchester," by Grace Isabel Colbron, tells in a charming manner of the many pleasures that can be derived from a days motoring about this beautiful suburb of New York City.

"The Calendar of Travel" for the month, deals with Old Point Comfort, and the best known of the Virginia and West Virginia Springs. Also, trips are suggested to The Luray Caverns — The Natural Bridge—Mammoth Cave—The Grand Canyon of the Colorado—and Along the Great Lakes. * In The Travel Club Department contains many interesting stories and experiences of travel in various sections of the world.

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The discharge was controlled by a valve in the base of the nozzle, and the operator soon became expert and could paint 8 feet or 10 feet above his head and the same distance below his feet. Two men were required, one to keep the paint bucket full and the other to handle the brush. There was little waste of paint, though every crevice was filled, and the rough surface was covered better than it could have been done by hand. One gallon of paint would cover about 150 square feet and the two men would cover about 5,000 square feet, in one day. The windows were protected by a light, movable, canvas-covered frame. The cost of the oil paint thus applied did not exceed 5d. per 100 square feet, and the cost of painting the buildings, including all labor and a reasonable sum for the use of the air-pump, pipe, reservoir and brush, was less than 7 I-2d. per square of 100 square feet, or less than one-half the cost of painting by hand.-Invention.

LEASOWE CASTLE

A GREAT chance for the collectors occurred at the sale of an Elizabethan castle, with all its valuable contents, in Cheshire, England. It was the residence of Sir Charles Cust, and was built by the Earls of Derby, when it passed from that family to the present owner's great-grandfather. It was chiefly noticeable as containing a facsimile of the notorious star chamber, lined with the original oak panelling of that apartment. The wood is in an excellent state of preservation. The star chamber contains some fine specimens of antique oak furniture, and included in the contents of the castle are valuable old oak cabinets, chairs and other articles, which have been in the mansion since the sixteenth century.

Nearly all the subsequent changes of taste are represented, and the collection of Chippendale is of unusual importance. It makes the mouth water to think of all these treasures which were dispersed by auction, but the wise collector who is also rich will secure the star chamber and set it up in a brand-new house, a veritable star of antiques. Save for these forced sales of family relics abroad, people with fine tastes to gratify would not fare very well. But the fallen fortunes of one are the happy accidents of others.—Boston Herald.



THE COUNTRY SEAT OF MR. FREDERICK PABST

THIS most remarkable and interesting country seat, located on the shores of Lake Oconomowoc, Wisconsin, is one of the most extensive in the Northwest. A special feature is the buildings, comprising not less than thirty structures in all, and all constructed of concrete. Probably no home in the United States includes so many buildings and so many farm and rural industries. Mr. Day Allen Willey's article, which is profusely illustrated, describes not only the architectural development of the estate, but gives a general idea of its extent and the unique features connected with it, including the landscape gardening problems which have been solved most successfully.

WINTER TREES-A PLEA

Can we not have in the United States such trees as our eyes have feasted on while dreaming under Italian skies? This is the question propounded by Helen Churchill Candee. The Cypress trees, the Umbrella or Stone Pine, the Live-Oaks, all possess attributes almost human, and so are worthy of human love and human companionship. She describes their beauties, and their several characteristics and charming illustrations accompany the paper.

Let every arboriculturist read and-act!

ECONOMICAL METHODS OF USING CEMENT WITH DECORATIVE EFFECT

Under the above caption Mr. E. A. Trego deals with a subject interesting to every architect, to every builder and to every man contemplating the erection of a home. No material for building purposes has developed in use by such rapid strides, in the last decade, as has Portland Cement and any improvements in the methods of handling it economically or any means of applying to, or incorporating with it, proper and effective decoration, will be read with interest. Mr. Trego advocates effects which are most artistic, having the impress of individuality and originality both in the production of designs as well as reproductions of stone and marble masterpieces of the old world. The illustrations are interesting and thoroughly explanatory of the text.

THE SEDUCTIONS OF OLD SILVER

The widespread interest in Old Silver, especially in pieces which can be definitely traced to Colonial origin, forms a subject for a delightful article by Mary H. Northend. Names of the old silversmiths are given and illustrations of some of their best efforts are portrayed. Like all forms of collecting, the fascination grows as the dangers of deception or the chances of finding a treasure increase.

BUILDING INDESTRUCTIBLE HOMES IN FOUR DAYS

Modern geniuses promise much, and had some of those now operating in the field of construction lived in the days of Romulus, Rome might have been built in little more than a day at best. Lawrence La Rue discusses some different devices and systems now employed for the rapid erection of houses and buildings where Portland Cement concrete is used, and it would seem that the promise held out in the above heading might be reasonably safe of fulfilment within a very short time.

MAKING REPAIRS UNDERNEATH THE CAR

The advantages of having a pit under the car in a private garage is fully appreciated by those who have tried to make necessary repairs under the machines, where such a convenience was lacking, and have finally provided this adjunct now considered most essential to every garage whether private or public. Mr. Harold W. Slauson gives many pertinent suggestions and useful information regarding the care of an automobile which cannot fail to interest all motorists.

AUBUSSON TAPESTRIES

The finest furniture coverings in the world are woven in the little town of Aubusson, France, about 200 miles by rail south of Paris. Under the name of Aubusson are usually grouped, Aubusson, Belleville and Nimes tapestries. Though possessing some characteristics in common, they are very different in weave and finish. The first of two articles by Mr. George Leland Hunter on Aubusson Tapestries will appear in the November issue of this magazine, the object of which he states is to enable the amateur to tell the real from the imitation and to know when a bargain is before him.

CHRYSANTHEMUM EXHIBIT

Several pages are devoted to reproductions of photographs taken during the exhibit of Chrysanthemums in 1907, made by the United States Department of Agriculture, at the government greenhouses in Washington, D. C., under the supervision of Supt. Byrnes. The perfection and beauty of the flowers is clearly disclosed by the excellent photographs, supplied by Mr. E. L. Crandall.

Free Advice on Decoration

HE unprecedented growth of our Correspondence Department has necessitated the opening of a new Department which will be devoted to the interest of those who are building, decorating or furnishing their homes. House Garden now offers its readers a House Finishing, Decorating, Furnishing and Purchasing Service which is complete in detail, thoroughly practical and absolutely free. Full color suggestions for the exterior of the house will be supplied with recommendations of proper materials to obtain the results. For the interior, the treatment of standing woodwork and floors, the selection of tiles, hardware and fixtures will be considered and specifically recommended, with the addresses of firms from whom these goods may be obtained. Samples of wall coverings and drapery materials will be sent and selections of rugs and furniture made. When desired, the goods will be purchased and shipped to the inquirer; the lowest retail prices are quoted on all materials.

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THE HITTITE INSCRIPTIONS

OLONEL CONDER, the wellknown Palestine explorer, analyzing in the Times the recent discoveries of Hittite inscriptions in Asia Minor, says that the newly copied texts appear to be records of local princes serving kings of the first Babylonian dynasty. The writing is in Akkadian emblems of language. These did not exceed 160, and the new discoveries establish both the language and the vocabulary. The widespread power of the Cassite or Akkadian race at this early period is confirmed. The empire to which the inscriptions are ascribed proves to be well known in history. The Hittites themselves play a subordinate part, being one of several tribes or nations ruled by chiefs, who acknowledged the great King of Babylon as Suzerain. Hogarth's explorations have shown that the north border of the Akkadian empire was drawn across Asia Minor. Inscriptions in this writing are not to be found apparently in the northern parts of Anatolia.-N. Y. Evening Post.

ARTISANS' COLONIES

A CCORDING to Robert Donald, editor of "London," artisan colonies near great cities are, from an economic, educational and municipal point of view, a mistake. It is not surprising, in his opinion, that such places as West Ham and Tottenham should desire to be incorporated in London. Of Tottenham, a place with a population of 100,000, he says it is nothing but a great dormitory for London workmen. They start early in the morning; they return late at night; take no interest in their system of government, and have no opportunity of participating in it. The place is run by jerry-builders for jerry-builders.

A colony of workingmen, isolated from the place where they labor, must necessarily be a poor community. The houses are of one low dead level of value; and the lower the assessment the higher the local taxation. In Tottenham, West Ham and Edmonton-all residential districts for artisans-the cost of local government is fifty per cent of the value of the houses; that is, if a man pays \$50 a year in rent he will pay about another \$25 in purely local taxes. And what is worse there is extremely little to show for the money.-N. Y. Tribune.