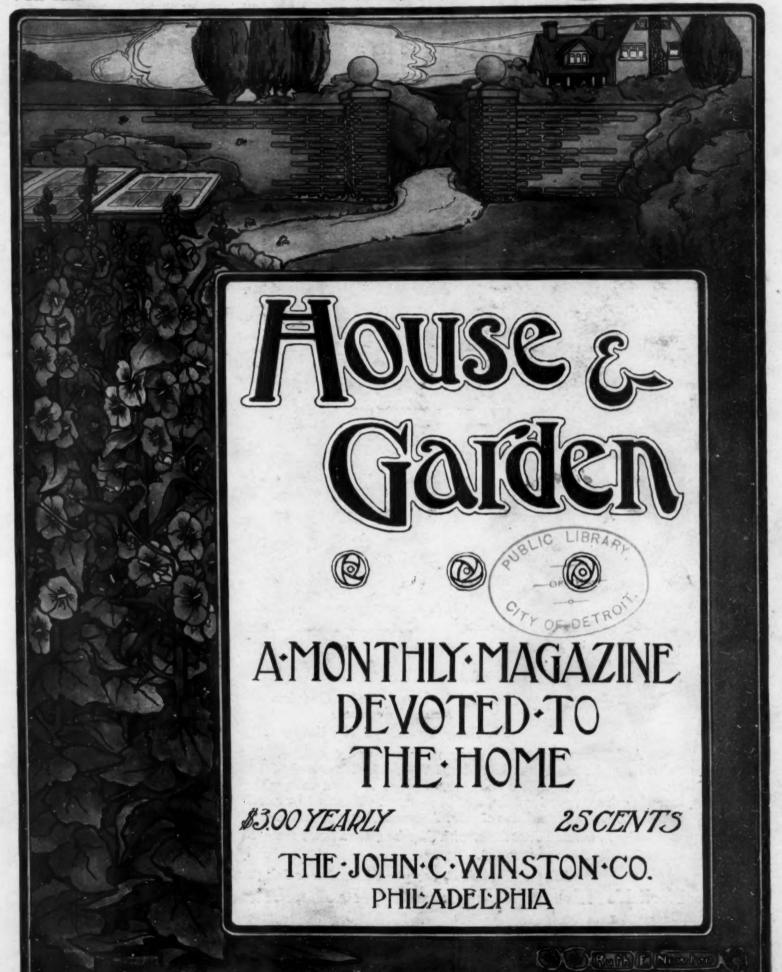
Bungalows, What They Really Are
The Pittsburgh Country Club

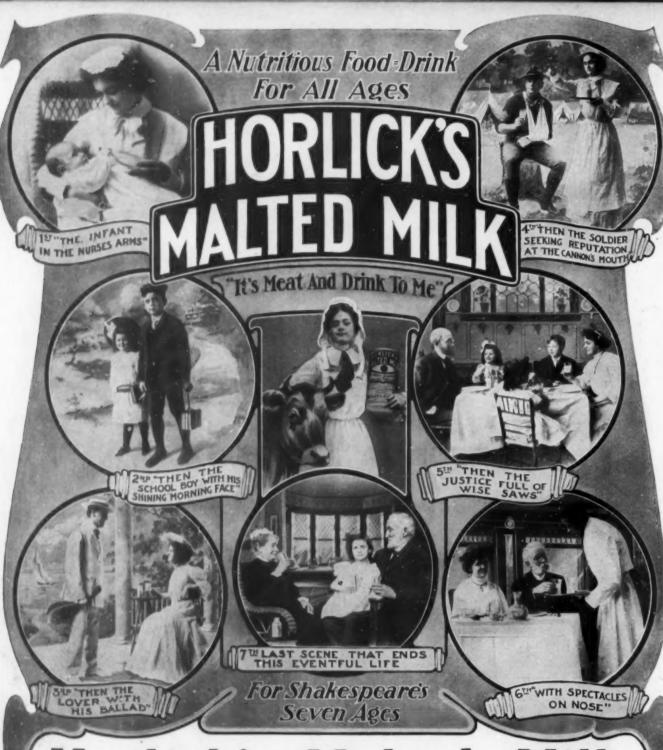
The Spreewald, A Bit of the Old World The Utility and Beauty of Mosaic Floors

Vol. XII

AUGUST, 1907

No. 2





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HERALDIC DECORATION

WITHOUT some knowledge of the science of heraldry it is impossible to appreciate the various devices which appear in the ornamentation of many of our public buildings and churches. Within the last few years in particular, Americans have given closer attention to the dignity and beauty of these stately edifices, and it requires but a passing glance to acquaint us with the part that heraldry plays in their embellishment. The revived taste for the well-defined styles of architecture of the mediæval period is apparent in all our larger cities: the introduction of the griffin, lion and other heraldic figures is particularly noticeable. Take, for instance, the Public Library of Boston, "built by the people and dedicated to the advancement of learning," in which heraldic decoration forms one of the most important features. The heraldic seals of the State, city and trustees are beautifully carved on panels above the main entrance; the seals or book-marks of the world's most famous publishers, beautifully carved, are a feature of the exterior decoration, and eagles, lions, the signs of the zodiac, and other symbols, are executed in various parts of the building with telling effect. The quaintly carved "lion and unicorn" upon the old Boston State-house speaks plainly of British occupancy, and the many coats-of-arms on old tombstones in that city and vicinity cannot fail to impress the observer. An especially rich display of sculptured coats-of-arms is to be seen upon the Gettysburg battle-field, where costly monuments bear the arms of the States by which they have been erected in commemoration of the troops who participated in that memorable conflict.-Eugene Zieber, in Lippincott's.

AN ARCHITECT DESERVES PAYMENT FOR HIS WORK

SO many American judges appear to be whimsical in their judgments on cases in which architects have a concern. it is a relief to discover one who is inspired by equity, viz.: Judge Barnard. The case in question might be called a stereotyped one, which is familiar to the courts of all lands. Mr. Bardsley, an architect, sued a client for his fees. He had prepared plans according to instructions for farm buildings, on the understanding that if the work was P. J. BERCKMANS CO.

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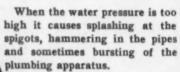
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carried out under his supervision he was to be paid 5 per cent on the lowest tender, or 3 per cent if the buildings were not constructed. The tenders ranged from \$14,000 to \$23,000. The client said he had given directions that the cost of the work was to be \$7,000 or \$8,000.

The judge, in giving his decision, said: "The duty of an architect generally is to anticipate the wants of the owner in respect to the building capacity and workmanship. He is not a builder. The work done by him is to be made out with extreme care, so as to prevent disputes between the builders and the owner. The specifications are so made out in this case. I deem it to be more in accordance with ordinary business conduct to find that the architect did not agree to lose his labor if the estimates of others were too high. I believe they were not too high to meet the structures wished for by the defendant and his

"The buildings were exactly what was wanted by the owner, but they could not be built for \$7,000 or \$8,000. The plaintiff is, therefore, entitled to recover 3 per cent." It would be difficult to discover a judgment in an English court in which it was held that to bring an action for the recovery of fees was evidence of business capacity in the architect which would be advantageous to those who commissioned his services.-The Architect.

ROOT PRUNING TREES

THE great superiority of transplanted trees over others not so treated is so apparent to all familiar.with the subject that it is now far more common than it was for nurserymen to pay great attention to transplanting. A tree prepared in this way can be transplanted with almost entire safety. The cost of preparing is so little that it can easily be added to the price of the tree, and no customer whose trees live will ever find fault with the extra price paid. If the thought arises that a high price has been paid for a tree it is rarely expressed when the tree lives and flourishes.

At this season of the year actual transplanting cannot be done to any extent but root pruning can; and it is just as good, often better. Sometimes when trees are but small a thrusting down of a spade around them will cut off the ends



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When trees are large the root pruning is better than a transplanting. There is no disturbance of the roots in all their parts. A number will always be found undisturbed, the tree itself is still in solid ground; and no matter how large a tree or how many roots were cut, I have never known one so treated to die.

There is really no time in which this mode of pruning may not be done, nor no tree, evergreen or deciduous, on which it may not be practiced. This is a good time to do it, as roots are still forming; and even when growth is over for the season it may still be done, and all will then be ready for the next season's development.—Florists' Exchange.

PREHISTORIC IRRIGATION IN EGYPT

7HILE modern English engineers are steadily carrying out a plan for irrigating Egypt that is to restore prosperity to its sun-parched fields, an English antiquarian has found at Hierakonpolis the records of a primitive system of irrigation that was carried out no less than six thousand years ago. The changeless East has rarely vindicated the repetition of its history in such convincing sort. Before the pyramids of Gizeh were planned, or the mighty steps of Sakkara completed, at the very dawn of those earliest dynasties of primeval monarchs who ruled in the hoary dawn of Egypt's history, the limestone macehead of King Nar-Mer recorded the turning of the first sod in some primitive scheme of canalization. Even then four distinct types of population can be traced and on the pivot of an ancient door is carved the bent figure of a bound captive, supporting its weight upon his back, exactly like those Romanesque or early Gothic figures to which Dante compared the suffering souls in his Inferno. Even so long ago, the vase of sculptured diorite shows a skill in working hard material that would be difficult to surpass to-day; and the toilet dish from



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Denderah, dating about 2440 B. C., is as delicate a bit of workmanship in the same stone as could ever be produced. Professor Petrie found an ordinary coatbutton, too, carved roughly in bone, that opens up quite novel problems of attire before the days of "double-breasted vests." The land of slaves and warriors and priests has always been the same in its essentials. The beauty of its art alone has perished. - St. James's Ga-

MOVING A RUSSIAN TOWN ON SLEIGHS

THE moving of an entire city to another point, which offers strategic and commercial advantages superior to its present location, is being proposed in the far north of Russia. The City of Kola, on the peninsula of the same name, is now situated at the confluence of two rivers, the Luttojoki and the Notosero, forming the Kola River, about fifty miles from the Arctic Ocean. While the rivers and the bay below are navigable for even large vessels, Kola is situated so far inland that it is shut off from the sea by ice much longer than other seaports situated even farther north, like Vardoe, in Norwegian Lapland. The Governor of the province Archangelsk, Baron Engelhardt, to whose jurisdiction the district of Kola belongs, has proposed to transfer the city to a better port nearer the mouth of Kola River into the Arctic Ocean. Imperial and ministerial consent having been given, active preparations are now being made to transport Kola, house by house, by sleighs on the river, to a spot forty-three miles below. The new location affords great advantages to navigation, and since it is surrounded by hills which it will take but little expense to strongly fortify, it will certainly become a point of great strategic importance. — Philadelphia Record.

STOWE HOUSE

STOWE House, long the home of the ducal house of Buckingham, has been placed in the hands of agents to be let or sold. Many readers will remember the place from Pope's often-quoted line-"A work to wonder at-perhaps a Stowe." Others will recollect references to its glories in the writings of Horace Walpole, Congreve and others, who have termed it an "Elysium." "If anything under paradise." wrote Pope to Bolingbroke, "could set me beyond all earthly cogitations, Stowe might do it." Lord Chesterfield and Lord Chatham were as loud in its praises as Walpole. During the last century Stowe was more than once the temporary home of the exiled royal family of France; and it is now offered "to be let or sold, owing to the death of the Comte de Paris." Stowe belonged to the Canons of Oseney, near Oxford, till the Reformation, when the broad acres of the estate were given, for a short time, to Wolsey's great college at Oxford. Four centuries ago, in 1592, it was conveyed to the Temples, one of whom soon afterward erected there a mansion, which was enlarged by Lord Cobham, through whom it passed to the Grenvilles, and so to the Dukes of Buckingham. The estate having become involved in debt, the place was dismantled in 1848, when the furniture alone was sold by George Robins for upward of £70,000. The last Duke lived again at Stowe, but after his death the property passed into female hands. Some idea of the size and grandeur of Stowe may be formed from the fact that its grand front is 900 feet in length. Its gardens, roseries and collections of foreign trees and shrubs are among the finest in the kingdom, and so also are its statuary and sculpture, both inside the house and in the adjacent grounds; and the Grecian and Italian temples which diversify its "Elysian Fields" are full of classical inscriptions, chiefly from the pens of scholars and statesmen of the last century. The gardens were originally laid out by Bridgman, but were largely altered and improved by Kent and by "Capability" Brown.-The London Times.

TREE-TRUNKS AS FILTERS

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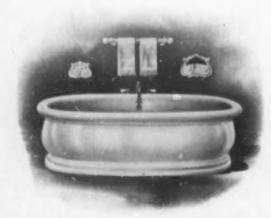
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Boston, Tremont Bldg. New York, Flatiron Bldg. Albany Harrisburg forces it into the filter formed by the tree trunk. As soon as the pressure reaches 1.5 to 2.5 atmospheres the water is seen, at the end of from one to three minutes, according to the kind of wood used, to make its exit from the other extremity of the trunk, at first in drops and then in fine streams, the water thus filtered being potable, freed, in fact, from every particle of the usual saline taste which is such a drawback to water obtained in the ordinary manner.—Railway Review.

PAVEMENTS MADE OF SHELLS

HE shell concrete pavements of Macon, Ga., are attracting considerable attention at present. The material used is a shell limestone similar to the coquina of which buildings were constructed at St. Augustine while it was a Spanish There is a bed of this stone colony. about thirty miles from Macon, which was discovered during the construction of the Georgia Southern & Florida Railroad, some years ago. Part of the roadbed of that railway was made of it, and it hardened into such a durable form that several carloads were brought to the city and laid about the freightstation, where it resisted the wear of the heavy traffic unusually well. After it had been in service for four or five years, the city paved a street having one of the heaviest grades in Macon with it, and this first street gave such satisfaction that several more have since been paved in the same manner. About 35,000 square yards are now in use, and petitions for 10,000 yards more are on file. The stone is crushed and laid on the subgrade excavated to receive it; the layer is about seven inches deep at first, and is consolidated by a fifteen-ton steamroller to a thickness of six inches, being sprinkled at intervals. On heavy grades a gutter is formed by mixing cement with the stone. The pavement costs from 50 to 60 cents a square yard, which includes crushing and labor.—Engineering Record.

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Boston Transcript.



Vol. XII

AUGUST, 1907

No. 2

CONTENTS

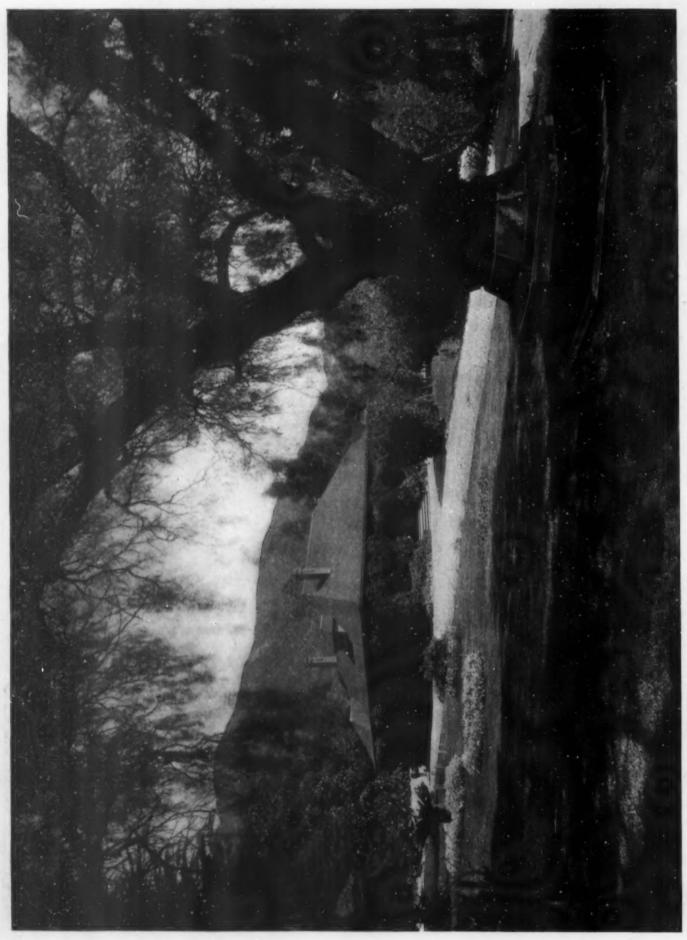
Bungalow	rs, What They Really Are	Seymour E. Locke
American	Country Clubs: IV-The Pittsburgh Co	ountry Club Mabel Tuke Priestman 54
Artistic J	apanese Features for Gardens and Country	ry EstatesF. Maude Smith62
The Spre	ewald, A Bit of the Old World	
The Sma	ll House Which is Good	71
A Half-timbered Cottage at Nutley, N. J		
A Colonial House at Highland Park, Ill		Arthur G. Brown, Architect 71
The Utili	ty and Beauty of Mosaic Floors	
The Dece	orative Use of Beaten Gold and other Me	tals
Suggestions for the Month		Leila Mechlin and J. W. Hall 80
The Edit	or's Talks and Correspondence	
	Tinting the Walls in New Houses Selecting Appropriate Lighting Fixtures Heavy Wall Covering Selecting the Wood Trim for the House	Selecting Oriental Rugs Harmonious Colors for Adjoining Rooms Suggestions for a Morning Room An Attractive Window to Enlarge a Room
Garden (Correspondence	

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TYPE OF CALIFORNIA BUNGALOW-THE FITZGERALD HOME, DUARTE, CALIFORNIA

House and Garden

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No. 2

Bungalows, What They Really Are

The Frequent Misapplication of the Name

By SEYMOUR E. LOCKE

ROM India to California is a far cry. The Englishman in the Far East, over two centuries ago, devised a form of habitation which to-day is being copied in many of its characteristics by the American in the Far West. When John Bull first sent his sons into the wilds of India to open up the avenues of trade along which vast wealth was soon to be moving into the coffers of the old Trading Companies, climatic conditions were encountered, which rendered life a very uncertain thing for the white man.

The dangers and discomforts of torrential rains,

tropical humidity and long droughts had to be met and the consequences minimized by the application of rational preventive measures.

This led to the planning of a form of house which would most nearly fill the requirements of protection from the elements direct as well as reduce the danger from the atmosphere impregnated with fever-laden moisture which the hot sun drew from the ground after the rains had ceased.

The native houses had the mother earth for floors, which after a rain and aided by the hot sun exhaled a poison as deadly as it was insidious. To mitigate



THE BUNGALOW OF MR. SCHUYLER COLE, COLEGROVE, CALIFORNIA



LIVING-ROOM IN THE BUNGALOW OF MR. SCHUYLER COLE

this the native prolonged the slope of the thatched roof nearly to the ground, in order to keep the moisture as far away as possible. This also served to protect the walls from the action of the rain against

them and, these being most frequently built of sun-dried brick, was a very necessary precaution.

The Englishman, however, in planning his house proceeded to elevate the floor well above the ground which insured free circulation of air under it. For the roof he retained the palm thatch, so carefully and ingeniously laid that the water was shed so quickly it scarcely penetrated below the outside layer of palm fronds. Instead of bringing the roof line down so low as in the native house, he

extended it on all sides and made a gallery or veranda under it. This gave him in pleasant weather additional lounging room and hammock space as well as affording the necessary protection to the walls.

Thus were conditions improved, health was not constantly jeopardized and life became more bearable. The houses were invariably one story in height, the space secured by the rise of the roof above the top of the side walls to the apex was one of the essentials, forming an air space which kept the living apartments at a somewhat more uniform temperature.

What then in India and the Far East was a real necessity, has, by modifying it to meet the differing climatic



A CORNER OF MR. COLE'S BUNGALOW

conditions in California and the Far West, been converted into a convenient and very desirable form of permanent house, which has gained immediate

popular favor.

The reasons for its popularity are easily understood. First, a studied simplicity of design and detail and the lack of pretension in finish. Second, the artistic and unaffected use of the materials employed in the construction, and lastly, in consequence of the foregoing ones, the possibility of practising economy in the building of the home without

materially detracting from the artistic effect, or impairing the value from the standpoint of convenience or utility. Of course costly materials may be em-

ployed and expensive fittings installed which will run the cost into large figures if desired. But a bungalow is of necessity simple in design and where any considerable departures

Minner

And Ren

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Altered Police

(nander Police)

First Floor Plan of Mr. Cole's Bungalow

are made from such simplicity the structure must be classified under a different name. In recent years many monstrosities have been perpetrated which have

sought to cover their sins both of commission and omission under shelter of the appellation of "bungalow."

In this connection reference must be directed to a humorous article illustrated by an accompanying floor plan, which appeared several months since in one of the leading weekly illustrated journals, entitled "How to Build a Bungalow for \$15,000,000.00." The suggestions

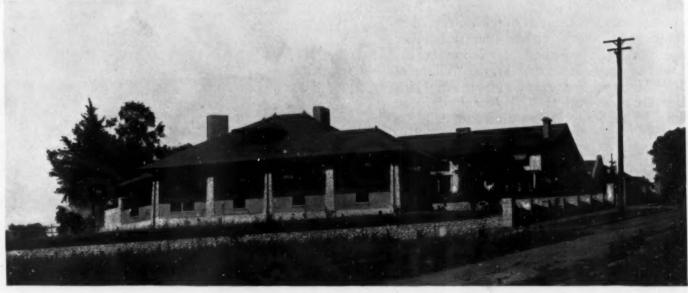
contained therein possess in many instances just as good reason for being, as those we see embodied in some houses which the proud owners are pleased to

call bungalows.

A most unpleasant mixture was recently depicted, having a heavy Spanish tiled roof carried on the most unsubstantial looking walls of cedar shingles. Had



A HOUSE WITH PATIO AND PERGOLA OF ITALIAN INSPIRATION The Home of Francis W. Wilson, Architect, Santa Barbara, California



RESIDENCE OF MR. BENJAMIN F. THURSTON, PASADENA, CALIFORNIA



THE HOME OF ARTURO BANDINI, ESQ., PASADENA, CALIFORNIA, SHOWING INSPIRATION FROM THE "ADOBE"

these walls been cemented to give the appearance of solid construction the effect would at least have been pleasing, however much of a deception it might have been in reality.

Other "creations" are long, rambling, many gabled, two-storied houses complicated in both plan and design, having more early English feeling with their half-timbered gables and Elizabethan details than any other—yet are referred to as "bungalows."

The roof lines of a bungalow should be as unbroken as possible and dormers permitted only for ventilation if this cannot be obtained in another manner.

Still other houses, characterized as bungalows, are charming ones built around an inner court or open patio; low one-story houses with floors only a few inches above the grade level—beautiful and most admirably adapted to the climatic conditions of the country, but they are not bungalows—but the development of the abode of the "Hacienda," or, the "Villino of Italy" into delightful modern homes in which simplicity of living may be indulged in, or where the more complicated mode of daily life exacted by social ambitions may be installed.

The old Spanish or Mexican ranch houses were usually built around three sides of a square, with wide-covered brick-paved corridors facing the court yard. The various rooms and apartments all opened off from these corridors and the floors were only a few inches above the brick paving. The dry air and earth made the slightest ventilation under the floor sufficient to prevent deterioration of the timbers. The roofs were generally flat but some



DINING-ROOM IN THE HOME OF ARTURO BANDINI, ESQ.



LIVING-ROOM IN THE HOME OF ARTURO BANDINI, ESQ.



THE LIVING-ROOM IN THE BUNGALOW OF MRS. D. H. GIROUARD, ALTADENA, CALIFORNIA



THE BUNGALOW OF MRS. D. H. GIROUARD, ALTADENA, CALIFORNIA



Floor Plan of Mrs. D. H. Girouard's Bungalow

had a ridge and rafters and were covered with tiling, or split shakes, or slabs cut from pine trees in the adjacent mountain range. It is easy then for the "tenderfoot" to confuse this low structure with the bungalow even though it resembles it only in being a one-storied house.

The climate of Southern California for the major part of the year is dry and free from humidity. The sun, from which protection is sought in India, is eagerly courted in California. The "three hundred cloudless days in the year" which the acclimated Easterner is heard mentioning so frequently and so enthusiastically are responsible for the beneficent effects so often noticeable in the faces of those who seek health and consequent happiness in that favored locality. Hence the elimination in many cases in the Southern California bungalow of the encircling veranda and the placing of porches, loggias or even uncovered terraces at such points as will enable the occupant to take a morning sun-bath or in the afternoon lounge in the shade, where the gentle breath of the tradewind wafted up from tropical islands in more Southern latitudes of the Pacific bring to sore and tired lungs, healing balm and peaceful rest.

In the East India bungalow a large living-room occupies the center of the house with sleeping-rooms on each of two sides. The kitchen and quarters for servants are in detached houses, the former being connected with "the house" by a covered passage. This was made necessary by reason of the evident readiness of the thatches to catch fire and destroy the entire establishment, for in those days cooking stoves and ranges were unknown and the cooking was done on open fires built upon a raised platform or table of clay. The isolation of the only part of the ménage where fire was ever used solved the problem as far as the household gods at least were con-cerned. If the dinner was cooled by a lengthy passage from the kitchen to the table it was usually so impregnated with curry that enough heat remained to satisfy all but the most exacting.

In California the isolation of the servants' rooms and kitchen department



THE BUNGALOW OF MR. LINDSAY, ALTADENA, CALIFORNIA

frees the house from odors of cooking, for the tradewinds are so constant that by properly locating these service rooms absolute freedom from this annoyance may be secured as well as the surety of more privacy, which the "one floor plan" sometimes makes difficult to obtain.

The several illustrations herewith given set forth good examples of what may be defined as "acclimatized bungalows" as well as some houses, the inspiration for which may easily be traced to Spain or Mexico and Italy, and improperly called bungalows, but which by any other name would still be quite as beautiful.

Of this latter type the home of Mr. Francis W. Wilson of Santa Barbara is a charming one showing unmistakable Italian origin, but it cannot properly be called a bungalow. The house is in the form of the letter H, with the ends of the two rear legs connected by a wall about six feet high from which flows a stream of water falling into a little pool in and around which caladiums are growing, forming a delightful feature of the enclosed court where complete privacy is assured.

The house of Mr. A. J. Eddy at Pasadena, California, is another one possessing much beauty of

finish throughout its interior where primitive designs and effects have been employed—after being refined and beautified to meet modern usages. The exterior presents the severe simplicity of detail which is so restful and which characterized all the older adobe ranch houses, after which it has evidently been patterned.

The home of Arturo Bandini, Esq., located on the outskirts of Pasadena, is built on three sides of a court and shows the Mexican form constructed in the simplest manner, of redwood boards set upright, the joints both inside and outside, being covered with three-inch battens. The exterior is left in the rough and stained, while the inside is surfaced and given a thin light oil finish to prevent spotting of the wood and yet retain as nearly as possible its natural color. The interior illustrations suggest much room and comfort and artistic possibilities at comparatively small outlay.

What may be considered a type both of Southern California bungalows and California rural homes, is seen in the Fitzgerald house at Duarte, California. It is situated in perhaps the most beautiful stretch of country in the San Gabriel valley, and has for a background the Sierra Madre mountains, whose



THE LIVING-ROOM LOOKING INTO THE DINING-ROOM—BUNGALOW OF MR. LINDSAY, ALTADENA, CALIFORNIA

fringing pines on the summit appear from the valley below like the ranks of an army, ever moving yet never advancing. The house itself is embowered in vines and its setting is amidst orange and olive groves. The spreading pepper tree shown in the foreground of the picture extends its arms across the broad driveway and shades the miniature pool and water-garden with its trellis sheltered seat adjoining. The roof of the house almost unbroken, with its broad expanse of silvery gray showing against the mountain background, the encircling veranda a mass of luxuriant rose and other vines and the broad sun-lit spaces, all make the house picturesque and attractive in the extreme.

An inexpensive yet exceedingly comfortable bungalow is that of Mr. Schuyler Cole at Colegrove, Los Angeles County, California. The exterior is so screened by trees and covered with vines that but a faint idea can be gotten from the pictures of its size and general effect. The plan, however, will show the measurements. The arrangement is typical, the detail and finish simple in the extreme. The comforts and conveniences provided, however, are all that are usually found in much more pretentious houses and the sanitary appliances all that could be desired. The view given of Mr. Benj. F. Thurston's sidehill bungalow on West Bellefountaine Street, Pasadena,

shows a very typical adaptation of the Far Eastern idea to local conditions. The house is of frame, the exterior cemented on metal lath. The foundations, chimneys, and porch column work all being of boulders from the bed of the near-by mountain stream. The wide veranda faces the west, on which side the most shelter from the sun is usually provided. Extensive and beautiful views are obtained from this porch both up the Arroyo Seco cañon with the foothills and mountains beyond, and down over the Los Angeles hills to the Pacific Ocean. The wing at the rear of the house which extends at an angle from the main building contains the kitchen conveniences properly located so that all odors are carried away from the house, as the trade-winds blow from the southwest. The house is a new one; given one year, or at most, two, and the growth of vines, shrubs, etc., will so enfold it as to make it hardly possible to recognize in it the same house herewith shown.

The bungalow built for Mrs. D. H. Girouard at Altadena, California, is located near the top of the long heavy grade of the mesa which slopes from the Sierra Madre mountains down to Pasadena, some five miles away. The house faces the south, thus securing to the principal rooms, unobstructed, the magnificent views



THE LIVING-ROOM IN MR. LINDSAY'S BUNGALOW, SHOWING THE ROUGH STONE FIREPLACE

which on clear days extend even to the Channel Islands, some forty miles off shore in the Pacific Ocean. The approach is from the avenue above the house by walks and a carriage way leading to the small porch shown on plan. From this porch an entrance hall leads to the central living-room which

extends entirely through the house, opening by generous French windows onto a piazza at the south. The living-room is panel wainscoted to the height of about eight feet where the ceiling, as shown in the illustration, is divided into panels on the rake by light moulded beams; the center of the ceiling is treated



THE HOUSE OF MR. A. J. EDDY, PASADENA, CALIFORNIA, SHOWING MEXICAN INSPIRATION



AQUATIC POOL AND RUSTIC SEAT-THE FITZGERALD HOME, DUARTE, CALIFORNIA

in a similar manner, the panels being plastered. A large fireplace and brick mantel form an attractive feature of this room. Reference to the plan will show a very successful arrangement of the sleeping-rooms and conveniences for the family on one side of the living-room; on the other side the dining-room, facing east and south, with the kitchen department complete and servant's room, placed to be as little in evidence as possible; an octagonal latticed and screened porch masks the outside kitchen entrance.

The exterior walls are covered with cedar shingles, stained. The roof, which is unbroken by excrescences, has wide extending eaves. The chimney tops are of cobblestone laid in cement mortar with joints well raked out to give light and shade effects. Casement windows with small lights of glass lend a definite charm to the appearance of the house, which as a whole, possesses much merit in the frank combination of the useful and the artistic.

A most satisfactory house is the bungalow of Mr. Lindsay, also located at Altadena. A very pleasing rusticity in the exterior appearance is given by the use of the trunks of small trees for porch columns and railings and the cobblestone work of the chimneys and foundations. The house is low-spreading and inviting;—the roof lines are good and are practically

unbroken. From the two views given of the interior may be seen the general character of the finish and furnishings of houses of this type in Southern California—indicative of the great amount of comfort possible with minimum expenditure of care and energy.

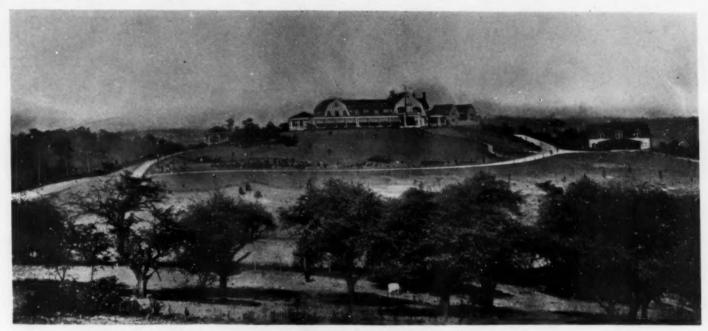
It must not be inferred that bungalows and houses of similar character are confined to Southern California in this country. The conditions of climate, however, render them particularly suitable for all the year occupancy there.

In recent years they have been found on both sides of the Continent to be ideal for summer houses either at the seashore or in the mountains. Long Island has many examples of them, while the New Jersey coast resorts and inland towns are replete with them, and the general favor accorded them has resulted in very many having been erected for such uses.

The "Encyclopædia Britannica" says; "The Bungalow is the kind of house occupied by Europeans in the interior of India. It is a one storied thatched or tiled house usually surrounded by a veranda. Houses of masonry with terraced roofs are distinguished as 'packa-houses.' The name is a corruption of the native word bangla—Bengalese—and probably refers to the first place or district, where the native house of similar form was noticed by Europeans."



THE GARDEN OF THE PITTSBURGH COUNTRY CLUB



The Pittsburgh Country Club

American Country Clubs THE PITTSBURGH COUNTRY CLUB IV.

BY MABEL TUKE PRIESTMAN

HE Country Club of Pittsburgh is one of the most ambitious and progressive suburban clubs in the United States, and all its members are loyal and enthusiastic supporters of all its functions. The choice of its location is a particularly happy one. It is situated on a hill just beyond the long stretch of Beechwood Boulevard, where three promontories jut out into the four mile Run Valley. The central promontory, undoubtedly the most beautiful of the three, is the one upon which the country club is situated. It is 464 feet above the water line in the heart of the city, and 1170 feet above sea level. It is within half a mile of the boulevard driveway and scarcely a mile from the street cars.

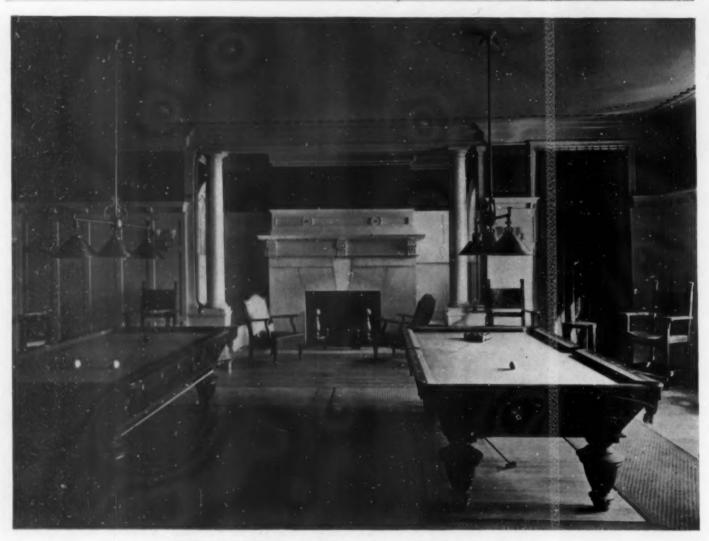
A lovelier or more accessible spot for a country club could not have been chosen, and its commanding view, covering 360 degrees of the circle, and its exposed position make it always a cool and desirable spot in the hot days of summer. The broad driveway which winds round the hill allows the visitor an excellent opportunity of viewing the club house.

It is built in Colonial style and is surrounded on two sides by wide verandas. The entrance is in the center of the building, and is reached through the piazza from the porte-cochère. The handsome portico extends some distance beyond the main porch and adds to the distinctive approach. The building is formed of overlapping boards, painted gray, with white trims. The dormer windows in the roof add a pleasing quality to the general effect of the club house, and the heavy columns supporting the piazza roof have an imposing appearance.

A good view is obtained from the round porch at one end of the building. It serves a useful purpose in being a charming outdoor dining-room. Masses of palms banked against the bright awnings, with the scent of flowers wafted in from the flower boxes on the piazza, make it an ideal spot for dining.

The dining-room itself overlooks this porch. The room is attractively broken by heavy columns supporting deep moulded beams. The walls are covered with blue green tapestry. The ceiling is stenciled with a wide border repeating the tones of the wall fabric. The furniture is of beautifully carved heavy mahogany, while the floors are partly covered with rugs having a very heavy pile, which were made to order in Vienna. The floor of the dining-room has been laid with handsome maple, for dancing, and may be engaged for that purpose after dinner hours, although one third of the room can be cut off and used at all hours.

Adjoining the dining-room are the reception and reading-rooms, which are divided by columns in the same way as the dining-room, giving beautiful vistas into the rooms on either side. The chairs are upholstered in leather and tapestry, and the rooms are



THE BILLIARD-ROOM WITH ITS CHARMING INGLE-NOOK

furnished with handsome mahogany furniture. The color scheme is repeated in the beautiful Vienna rugs. The heavy mouldings and white columns are pleaspapered with scenic ing features of these rooms design, surmountwhich are fully dado painted equipped for reading and writing, while another division of the same rooms contains a piano. room from another. MAIN - PORCH -THE PLAZES AND LOCKER ROOM First Floor Plan

Taking our way through the house we find ourselves in a spacious hall, which is attractively paper of Colonial ing a low paneled white.

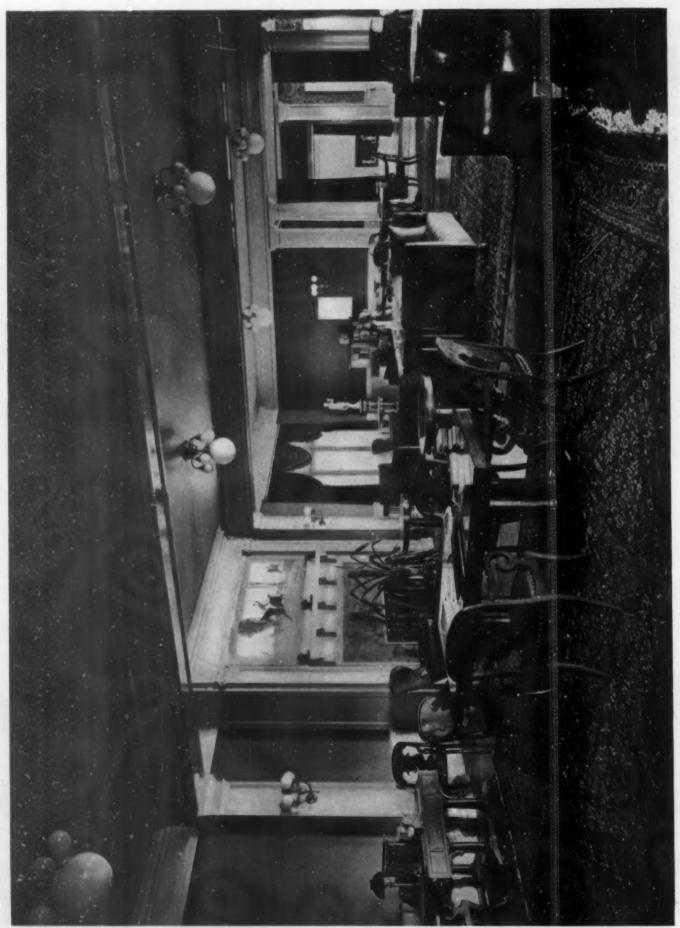
> The wide staircase is a particularly imposing one, with its treads and hand-rail of mahogany. The feature of the club is the classical appearance of the lower part, with its stately columns dividing one

The billiard-room is on the right of the hall and carries out the same style of architecture as the rest of the house. A charming ingle-nook is divided by columns and the wall is surrounded by a high wainscoting of oak, with a handsome frieze ornamented with detail border lines. One end of the billiard-room opens into another hallway through which the grill room can be reached. It is suitably furnished with chairs and tables of



THE GRILL ROOM

massive oak, and the high walls are paneled with oak devoted to the service quarters. In an adjoining to the height of the doorways. building connected with the main club house by a The ceiling is piazza, are the lockerheavily beamed, and each panel is ornamented with rooms and showercarvings harmonizing with the frieze. The grill room baths. In the main club house there are is completely cut off from the thirty-two wellappointed bedsecond floor, as remainder of the club. rooms on the building, wellas The center of the dressing-rooms, behind the main hall, is and a private dining-room for the ladies. From early spring until late in the fall these rooms are in constant use not only by the members of the club but by their families. The smoking-room, bowling-alleys, and rifle-range may be found in the basement below the piazza and locker-room. The smoking-room is of ample proportion, with paneled walls and low beamed ceiling. The generous fireplace is particularly worthy of note, with its wrought iron furnish-In addition to the provisions already named for the accommodation of the members and their friends, Second Floor Plan



THE RECEPTION ROOMS WITH A GLIMPSE OF THE HALL BEYOND



THE REGISTERED JERSEY CATTLE BELONGING TO THE CLUB



THE FOURTH HOLE



THE FOUR-IN-HAND BELONGING TO THE COUNTRY CLUB



THE MAIN PIAZZA IN FRONT OF THE CLUB

fine golf links, lawn tennis courts, bowling alleys, polo field, riding, driving, coaching and concerts are all available to the members and guests. The club forms an important factor in the social life of Pittsburgh.

The club is a very progressive one, and its board of directors are enthusiastic in widening its spheres. Eventually it will possess a swimming-pool and indoor riding-school as well as its own greenhouse. The pool has already been designed. It is proposed to build the pool sixty feet long and thirty feet wide, also to have a suite of Turkish baths attached and an instructor in swimming will be in attendance who can teach the children of the members, and be responsible for their safety.

For the near future a few squash courts, more tennis courts, tether ball and bowling on the green, with a good gymnasium are already planned.

The club already possesses accommodation for sixty horses and polo ponies as well as commodious stabling. It is expected sometime in the future the Pittsburgh horse shows will be held in the riding-school. A competent riding master is always in attendance, and is subject to the call not only of members of the club but their families.

A unique feature of the club is the possession of

several pleasure vehicles. The four-in-hand coach "Hiawatha," the four-in-hand break, and the tandem-cart have all been given to the club by some of its horse-loving members, and are fully appreciated. Polo ponies for riding, or for polo practice, may be engaged at any time except on days when a match game is going on and lessons in polo may be arranged for.

The club being a mile or a mile and a half away from the street cars, arrangements are made, whereby members not choosing to go in their own, or not possessing their own conveyances, can be taken to the club by the club's automobiles and wagonettes.

The outdoor sports are confined to golf, and tennis. Golf being the chief game of interest at this country club, and though only possessing a nine hole course, its members are enthusiastic lovers of the sport. The holes are all visible from the club porches.

Every privilege is given to ladies and children to make full and free use of the club house and ground for afternoon teas, porch parties, picnics, card parties, etc.

The Country Club of Pittsburgh is perhaps the only club in the United States owning its own herd of registered Jersey cattle as well as a herd of Berkshire swine. They also grow their own vegetables and raise their own chickens.



THE SMOKING-ROOM IN THE BASEMENT OF THE CLUB HOUSE

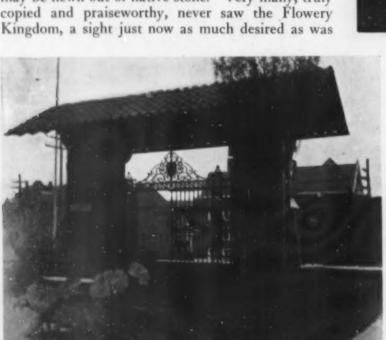
Artistic Japanese Features for Gardens and Country Estates

By F. MAUDE SMITH

OWEVER much we have cause to change our minds from time to time, regarding the Japanese people, never within the memory of even the oldest inhabitant, has there been a shadow of doubt as to their exquisite ideas in art. Their superb embroideries serve for everything from collar embellishments to wall panels. As for their skill with the brush, their figures are so lifelike as to have been prettily touched off as literally arising and walking off the paper.

Though fascinated with their landscape gardens in miniature the occidental regards such topiary efforts as mere curios or child's play. Indeed, many children do try their hands at such effects, with no more space than a window sill box affords. Grown-ups, however, with more or less of the blessed earth at their command go in for broader

The stone lanterns are most frequently used of the real Japanese features. They are altogether fascinating, whether they be of the tall graceful, or low squat, form. These odd and interesting importations are set at such places in their grounds as require lights. It must, however, be admitted that some merely "erect" them as monuments to their money or vanity. Of course they may be hewn out of native stone. Very many, truly copied and praiseworthy, never saw the Flowery Kingdom, a sight just now as much desired as was



GATEWAY IN BRICK, TILE AND IRON



JAPANESE STONE LANTERN

that of Paris when somebody, long ago, was moved to say, "See Paris and die." But no longer are we content with seeing. There's the desire to bring home, to utilize, and to make beautiful.

For large estates, where various effects may be carried out, a stunning addition is the Japanese temple gate. Many fancy, at first hearing of this gate, that it is but a thin frame, little more than our own gateways. Not so, the temple gate in Japan is a two-story affair with a balcony around the upper story. It may serve as a mere shelter or as an outdoor sitting-room or studio of the most fascinating and seductive character. The first floor is open, though in Japan great carved figures of terrifying gods guard it at each end. There, too, the second story would be filled with the religious emblems that

appear so grotesque to us and mean so much to them. The stairway runs up at one side. The one illustrated was brought from Japan, where it was carefully taken down, and here it was as carefully put up again, by Japanese workmen, after its long journey. It might be copied at a modest figure.

Gateways, as they are understood by most persons, may be charmingly done in the Japanese

fashion, too.

A gateway in a wall or iron fence may be artistically accomplished in carved stone and ornamented iron work, while a wall of brick, with wide mortar joints, is effective with a gateway done in brick and tile.

Or the gateway may be of wood, painted as well as carved. Indeed, the painting is an important item of all Japanese features. Without their peculiarly

brilliant shade of red paint or lacquer it is all wrong. Placed near by the temple gate already written of, and over a stream connecting two lotus ponds, is a Japanese bridge. This wooden structure spans most sketchily the pretty ribbon of



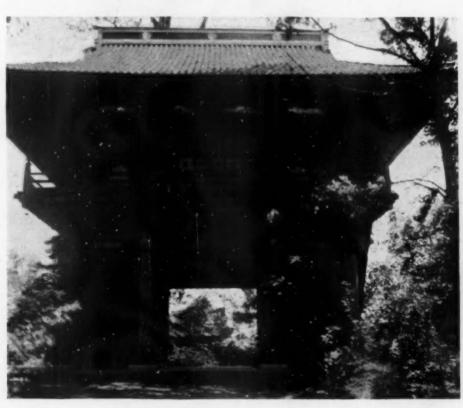
AN ATTRACTIVE JAPANESE BRIDGE

water, and the stately pink and white flowers have an unusually fragile appearance as compared with the stocky little bridge with its nearly circular fiery red railings and supports. The remainder of the bridge is left natural color. Of a truth it has not the air

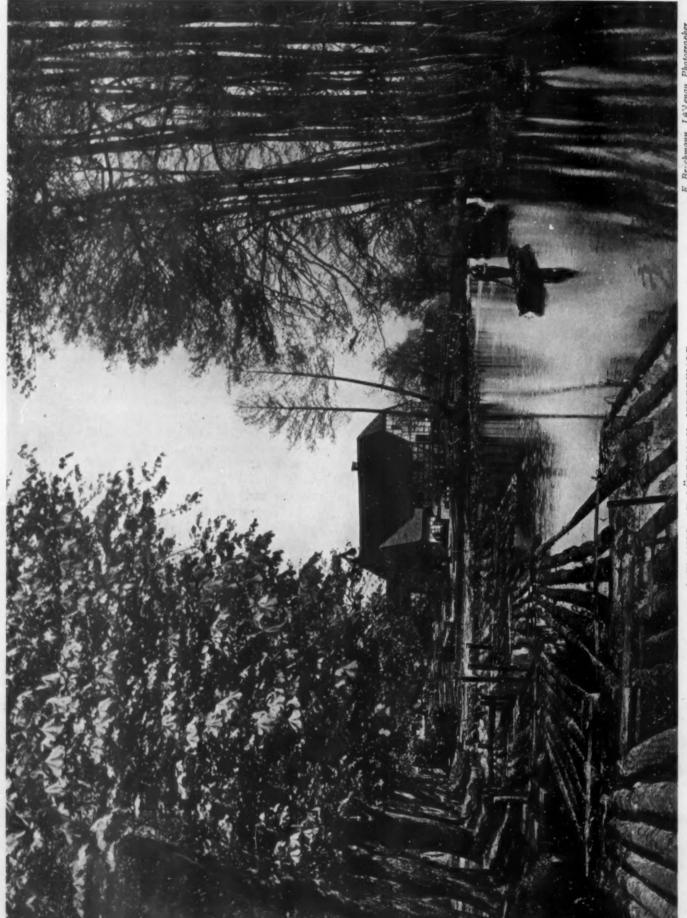
> of a bridge built for Americans, but rather seems designed for the attitudinizings of a troupe of players from the land of the Mikado or for this wonderful folk as we know them on the paper fans from the land across the sea.

> The beautiful Wistaria, the legendary pine (both grown by the Japanese to perfection) that challenger of the breezes, the tall bamboo, should supplement the picture in those grounds favored with Japanese architectural touches, while the porcelain bowl with its pigmy garden, including a gnarled, lichen-covered evergreen, will adorn the temple gate studio.

> It is peculiarly interesting that just as we are going in for Japanese features en grand, the Japs themselves are broadening their scheme of gardening, the advanced Japanese landholder now speaking of his horticultural interests by the hundred acres instead of by the square foot.



JAPANESE TEMPLE GATE AS A STUDIO



SAW MILL AT LÜBBENAU, SPREEWALD

THE SPREEWALD

A BIT OF THE OLD WORLD

By WILLIAM MAYNER

THE rivers Havel and Spree lend to the general landscape of the Mark of Brandenburg a peculiarly fascinating character, but it is the "Spreewald" in particular, over which an indescribable charm seems to rest. One cannot but be impressed and feel a wonderful interest in the customs, dress, mode of living and language of the inhabitants of the Spreewald, the remnants of a once powerful race, known as the Wends. The Wends are a Slavic tribe which once occupied the Northern and Eastern parts of Germany.

The Colony of Burg, in the Spreewald, was founded in the year 1765 by Frederick the Great; the hundred settlers who came at that time from Austria, Bohemia, Hungary, Saxony and Silesia, receiving each about eighteen acres of fiscal land. It is noteworthy too that the settlers of German weavers in the village of Burg, soon adopted the Wendish, or, more correctly speaking, the Sorbish language, customs, opinions and even physically acquired a pronounced Wendish type. Especially in Burg, has the dress and custom remained Wendish. The women go to

communion service dressed in black (as if in mourning) with white cloaks. The dress of the bride, as will be seen in our illustration, is particularly picturesque.

Even at the beginning of the eighteenth century almost the whole area of the Spreewald was an impenetrable forest. Now, however, the forest does not occupy more than a fifth part of the Spreewald. It is computed that nearly 50,000 tourists visit the Spreewald annually.

There is something weird and uncanny in the superstitious character of the inhabitants of the Spreewald. The most fantastic legends are related and believed by these simple peasants. At night the old Wendic King is said to ride headless over the hill. Black men are alleged to be seen by the peasants at dawn; at dusk women clad in white are said to "walk" the forest. As soon as deep holes are bored in the hill, great serpents raise their heads. These legends are solemnly believed by the Wends.

In the warm weather almost all the traffic is carried on in boats. The boat carries the



THE HOUSE OF A WENDISH PEASANT

Spreewalder to baptism,—takes him to the happiest festival of his life—his wedding, and finally bears him on his journey in his coffin to his last resting place. When winter stretches its crystal bridges over the Spreewald, the skating and sleighing begin between the various villages.

The night before the burial of a Spreewalder, a chorus of girls sing funeral hymns around the open coffin, which is surrounded by as many burning candles as the number of years which the deceased had lived. It is the custom in Burg for the female relatives of the deceased to appear clad entirely in white cloth, so that only the eyes and hands are free. It seems hardly credible, but it is true,

that when the coffin is carried out, the bees and the cattle are solemnly informed by these simple folk, that now they are to have a new master whom they will have to obey. It is hard to believe that this "Sleepy Hollow" is within two hours' journey by train from the great modern city of Berlin, but such is the fact. Immediately after



COUNTRY INN OR LODGING HOUSE



INTERIOR OF A WENDISH PEASANT'S HOUSE

the death of a Spreewalder, the windows are opened wide, to "let out the soul." The bench on which the coffin has stood is knocked over at once, so that no person may sit upon it and "die after." These superstitious Wends also believe that in order that the grave may not sink in, all the names of the relatives of

the deceased must be recited, a light meal must be eaten before the burial, to be followed afterwards by a regular funeral feast with plentiful beer and

schnapps.

It was Professor Virchow who asserted that the excavations around the "Schlossberg" at Burg, showed undoubted evidences of prehistoric dwellings. The Slavs entered this particular district in the sixth century. In the period of the Margrave Geros (so runs the legend) a Wendish prince by the name of Ciscibor, after the destruction of his castle on the "Landeskrone" near Görlitz, fled to the Spreewald. He wandered to the banks of the Spree, built himself a raft and floated safely down the river as far as



THE KITCHEN IN A WENDISH HOME



FARM BUILDINGS

"Niederlausitz."
Here he built the castle of Burg, and ruled over the Wends of Niederlausitz as king. The last king of the Wends is said to have perished in the flames in the year 1298.

Many centuries ago, in the district between the rivers Elbe and Oder, lived the Germanic races known as the Semnones and the Longobards. After them, in the fifth

and sixth centuries the Slavic people, the Wends, came and took possession of the abandoned lands.

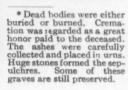
The Wends of the Middle Mark of Brandenburg were "Liutizen," a people related to the Poles. The only band that held them together, after a fashion, was the powerful priesthood, whose headquarters were at Rhetra. They were noted for their hospitality. To be hospitable was a duty. He who fulfilled this obligation was honored. He who neglected it was despised. On the other hand, we are told that they were given to lying, treachery and were cruel to helpless enemies. Their proverb, "Thou shalt divide with friends in the morning what thou hast stolen during the night," shows how little

developed were their ideas of "mine" and "thine." With the Wends the blood revenge was a sacred duty, to be carried out by the survivors or relatives of a murdered Wend. Polygamy prevailed among the Wends. The sons were treated with great love and care by the parents, but the daughters were regarded as a burden. When there were several daughters in one family, some of them were killed. Sick or superannuated Wends had to be taken care of by their relatives. They were not infrequently buried alive, or beaten to death. Sometimes the wife was burned with the dead body of her husband.* But this was only done if she had previously made a vow to this

effect. The Wends did not regard this as cruel or without feeling, for they regarded a violent death as a great honor, and as securing an entrance into the Kingdom of Happiness. The Wends, like all Slavs, were an industrious and frugal folk. The Wends carried on a



PEASANT WOMEN BLEACHING LINEN





THE THRESHING BARN

flourishing trade with their neighbors in the East and West. Both land and waterways were availed of for traffic. There were no bridges at that time, but the streams were crossed by means of primitive ferries. The trade was not merely exchange, but the Wends bought and sold, though the gold was not counted, but weighed. The conditions and functions of household life were influenced by household gods. Every "house-father" made his own household gods out of wood, stone or iron. The demigods were spirits (or ghosts) who carried out the orders of the gods. They carried on their work by night. They brought good luck to those who left them undisturbed. But whoever interfered with the demigods was sure to suffer misfortune. Thus superstition created beings the names of which still live in the language of the folk, such as dragons, manikins and goblins.

But, to return to the modern Spreewald. greater part of the meadow-land belongs to the landlords at Straupitz (Count Houwald), and at Lübbenau (Count Lynar), and in part to the town of Lübbenau, the Royal Forest Fiscal authorities, and to the Royal Court Chamber in the Lower Spreewald. The peasant farmers of the Spreewald lease

the land from these owners.

In the Spreewald district, the river Spree is divided into no less than 300 small streams, and during the season between the autumn and spring, by the regular flooding of the land, a great lake, many miles in extent is formed.

Lübbenau derives a considerable income from its culture of beans, horseradish, celery, carrots and cabbage and has become celebrated for its export of sour cucumbers.

Most tourists prefer to visit the Spreewald in the spring, although this whole district is intensely interesting at any season of the year, awaking as it does the remembrance of the long struggle between two nations and two religions. It is true we no longer find the old Spreewald of the chroniclers, of almost endless extent, impenetrable, and the hiding place of wolf and bear. Since the completion of the Cottbus & Lübben railway, the district can be comfortably traversed by the tourist. The enterprising Spree-wald Verein (association) has, by constructing new bridges and the erection of signs, etc., made the way more pleasant and less dangerous for the wandering tourist than was formerly the case. For those desiring to lead the simple life, I can cordially recommend the Spreewald.

If the stranger from the North selects Lübbenau as the entrance portal to this strange and magic corner of the earth, he will, on leaving the railway station at Lübbenau, be greatly impressed by the picturesque and noteworthy spectacle. The Spreewald maidens with their bright and many colored



THE HOME OF A FORESTER



LUXURIOUS SIMPLICITY—INTERIOR OF A WENDISH HOUSE

dress form an agreeable contrast to the simple, almost sombre apparel of the sunburnt, powerfully built men. As will be seen from the pictures, the skirts of the Wendish girls reach just below the knee; they are generally of a bright scarlet hue, trimmed with black velvet. The bodice is generally of black velvet, and white sleeves, the head-dress being either white or colored. White stockings and half-shoes add to the picturesque effect. The Spreewald bridesmaids especially, carry a small fortune—in skirts. The more skirts they put on, the wealthier the family. The Spreewald girls spin and weave the materials for their own dresses. The men are engaged chiefly in fishing, gardening and agriculture, the spade taking the place of the plough. On the outskirts of the Spreewald, the people have become somewhat more Germanised, but in the Spreewald proper, it is wonderful with what tenacity the peasants cling to the traditional dress, customs and language of their ancestors. May this primitive, magic little spot of green, refreshing in its simplicity, long be preserved from the too aggressive inroads of a prosaic and effete civilization.

The Spreewald is unique in its charm, its legendary history and fables. Certainly its like cannot be found in Europe, perhaps not in the whole world.

The former wilderness of the Spreewald, surrounded as it was by bogs, constituted a safe refuge

for the Wends, who were striving to defend their religion and their nationality. The heavy cavalry of the Saxons, in their campaigns against the Poles, had to halt before this labyrinth of bogs and impenetrable thicket. Under the shade of the venerable oaks, rose the grotesque figures of the ancient gods of the Wends. Here, too, in later years, fled the inhabitants of the neighboring villages with what they could save of their property, during the Thirty Years' War.

Axe and saw have since brought light and air into this forest which the old Wends regarded as imperishable.

The Upper Spreewald formerly extended from Lübben to Cottbus, and still forms the principal point of attraction to tourists. But the Lower Spreewald, geographically, ethnographically and historically, can really lay claim to be the more interesting. The systematic excavations which were carried on for so many years under the direction of Professor Virchow, afford conclusive evidence that the district was inhabited even before the immigration of the Slavs from the East. The gradual populating of the Spreewald by the forefathers of the present inhabitants took place in the fifth century. Fishing, hunting, the cultivation of flax and the production of honey, and cattle-breeding, constituted at that time the principal occupation of the Wends,





FUNERALS ON THE WATER IN THE SPREEWALD

E. Bruchmann, Lübbenau, Photographer

and even nowadays a weaving-stool for utilizing the self-gained flax, forms a necessary part of the household furniture. I have spoken elsewhere of the

Wends of the Middle Mark of Brandenburg being treacherous and deceitful, not so the Wends of the Spreewald. These people are traditionally hospitable, open and honest. Whoever refused hospitality to a stranger, ran the risk of having his house burned during the night. The block-house of the Spreewalder generally consists of three rooms only: living-room, bedroom and kitchen. The illustrations of the interiors show in some instances much comfort -and a strange mingling of the old and new. The rude block-houses of Lehde, Leipe and Burg, as far as arrangement, form and construction are concerned, correspond almost exactly to the square, massive blockhauses described by Tacitus.

The Wends never build semi-detached houses. Each must be surrounded by a free space, forming in its way a "castle" of itself. There is in the warm season a lively boat traffic between

house and house, village and village, over the 300 small streams. It is sweet to hear the greeting of the rowers Pomogaj Bog wam as the boats glide noiselessly, save the plash of the oars, over these "Venetian streets." Whereupon the greeting is acknowledged by Bog zekujscho! — May God requite you.

In addition to personal study of the Spreewald and its inhabitants, made on the spot, I have availed myself of the following literature:

Die Landschaften der Provinz Brandenburg— Dr. Ed. Zache.

Märkische Streifzüge-

A. Trinius.

Spreeland—Theodor Fontane.

Der Spreewald-

Albert Goldschmidt. Eine Frühlingsfahrt in den Spreewald—Dr. Müller.

Die Wenden der Mittelmark-Friedrich Wienecke.

Die Provinz Brandenburg in Wort und Bild.



A WENDISH BRIDE

The Small House Which is Good

A Half-Timbered Cottage at Nutley, N.J.

WILLIAM STROM, Architect

THIS house thoroughly good, from whatever point of view it may be considered, was designed by the architect owner for his own occupancy. The exterior with its random ashlar stone foundations and porch work; the exposed timbers of the wall construction filled between with stucco work; the steep pitch of the roof and the charming casement windows, all proclaim the English origin of the inspiration. The trees and evergreens surrounding it provide the final requisite for the suggestion that it is the lodge of some great estate.

From the low recessed porch whose stone columns carry the projection of the second story of the house, one enters the little hall, finished in oak with walls tinted a shade of buff. The stairway at the left has a landing up two risers above the floor, where a casement window looks out upon the lawn. A Chinese lantern of teakwood and painted glass hangs from the ceiling; on the polished floor is an Oriental rug of soft coloring.

The lower floor, while small, is well arranged and all the space is utilized to its fullest possibility. Generous fireplaces are found in the parlor and dining-room and in the latter Chester cabinets are built in the corners of the rooms.

The color scheme of these two rooms is very agreeable indeed. The parlor is in dull green, russet brown and mahogany. Low book shelves fill much of the wall space. The hangings for the leaded windows and the square archways, as well as the upholstery of the divan and chairs, are in a somewhat darker shade of green than that of the walls. The dining-room walls are in dull red with hangings of the same color in a deeper shade. A beautiful old Sheraton sideboard is a feature of this room. It is flanked by a fascinating mullioned casement window

The second floor is remarkably roomy, has four well-lighted chambers, as may be seen by the accompanying plans. Here are two more fireplaces built in quaint pattern of yellow gray or red brick. The walls are covered with old-fashioned pale yellow paper with plain stripes of old rose or orange. We find some splendid examples of old furniture in the family heirlooms: highboys, sewing tables, low posted bedsteads in Colonial mahogany and brass trimmed dressers of the First Empire. The bathroom is shortened somewhat to allow for a curious little stairway to the maid's room in the attic. Altogether this is an exceedingly attractive house for the cost. It was built some years since, but could be duplicated to-day for about five thousand dollars.

A Colonial House at Highland Park, Ill.

ARTHUR G. BROWN, Architect

THE home of Mr. Elisha Morgan, which, while only ten minutes' walk from the railway station, is a veritable "Nest in the Woods." It is built upon the edge of a wooded ravine a block from the bluff overlooking Lake Michigan.

It faces the west, which gives a delightful outlook to the south and east, over and through the wooded growth of the ravine.

The exterior follows closely the form and detail of the New England Colonial, being clapboarded and painted white. The outside of the front door is painted white and with the side-lights, fan-transom and gabled entablature presents a quaint and very attractive feature to the street.

From an open stoop the entrance hall is reached through a vestibule. The woodwork throughout the house is all eggshel-white enamel finish, and all doors are birch and of one panel design, all stained with dark mahogany wood tint and finished with shellac and florsatin. The stair-treads and the hand-rail are also of birch stained to dark mahogany.

The living-room, 14x25 feet, has east, west and south exposures. On the latter side, entrance to the screened porch is effected by French windows. The fireplace in this room is low and broad. The facing of mantel is of light buff brick laid in red mortar. The mantel shelf and brackets which support it are of birch stained dark mahogany. The white woodwork of this room, the mahogany shelf and the brass andirons make a most pleasing combination with the delicate green of the walls.

The dining-room has a plate rail at a height of six feet. The walls are tinted "pumpkin yellow." The kitchen department is complete and provided

with every convenience.

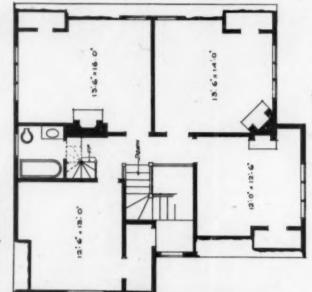
The second floor has three bedrooms and a bathroom. The bedroom on the south has a fireplace and has been arranged for the owner's use, with double closets each having an outside window.

The third or attic floor besides a bedroom has a servant's room, a bath-room and a large unfinished room for storing trunks, etc.

All floors except in the kitchen are of oak, unstained. The wood finish, as well as the plaster walls to a height of five and a half feet in the bathrooms are finished in white enamel.

The house is heated by a hot water system. The hardware is artistic, glass knobs having been used on the doors throughout the house. The plumbing devices are of the best sanitary type. The house cost \$6,300.

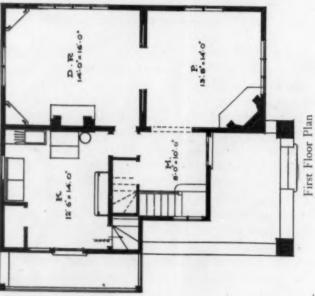










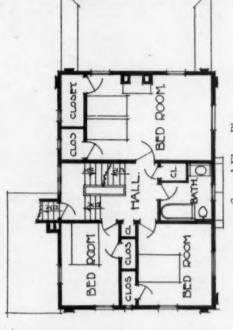


An Attractive Window in the Dining-Room A HALF-TIMBERED ENGLISH COTTAGE—NUTLEY, NEW JERSEY

Second Floor Plan



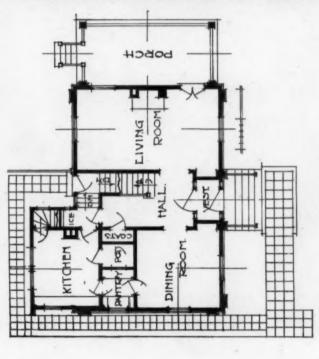
ne Living-Room



Second Floor Plan



The Front of the House



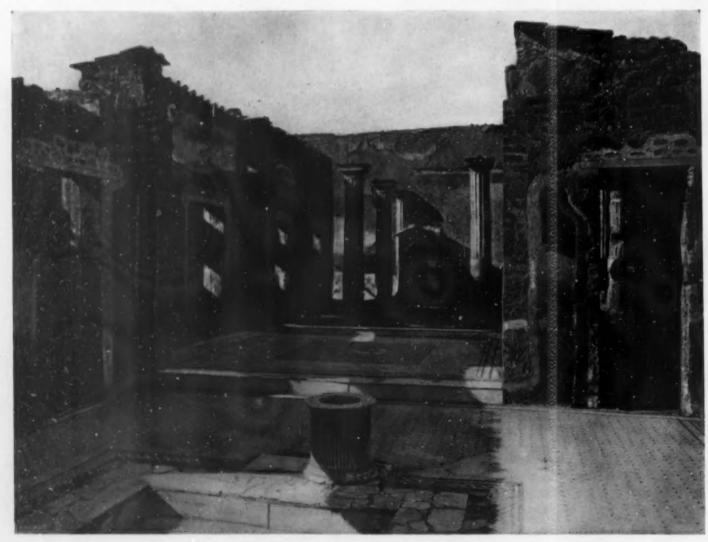
First Floor Plan

The Utility and Beauty of Mosaic Floors

By KARL LANGENBECK

TO-DAY we are spread over a much greater portion of the surface of the earth than were those great builders of country houses, the Romans, and we therefore are required in our buildings to meet more varying conditions of climate which affect the comfort and convenience of those who occupy them. This is particularly the case in America, where houses must be built to meet extremes of weather conditions in one and the same latitude. This difficulty was never encountered by the Romans in their building, even in their most outlying provinces.

Then, too, apart from the mere comfort of home living, our ideas have advanced in so many ways that we naturally are making greater claims along the line of luxury at home, to accord with the conveniences with which we are surrounded in business life and in travel. The Romans were an eminently practical, and also a luxurious people as far as the material conditions of their day and degree of their inventions allowed; in fact they pushed their ingenuity into the service of comfort more rapidly than in any other direction; as, for instance, in their extensive appliances for bringing pure water into the cities and into the individual homes, as well as their provision for sewage disposal. These both show that our most modern ideas of sanitary plumbing are not greatly in advance of theirs save in little points of mechanical perfection. The allusions found in literature to the engineering and sanitary work done by the



MOSAIC FLOOR OF ROMAN VILLA

Romans, are but few, although it is clearly proven to us by history and modern research that those works were wonderful indeed. Time has almost effaced the brick conduits, and the lead piping which we know they used has entirely disappeared. The floors, however, of their buildings, which remain to

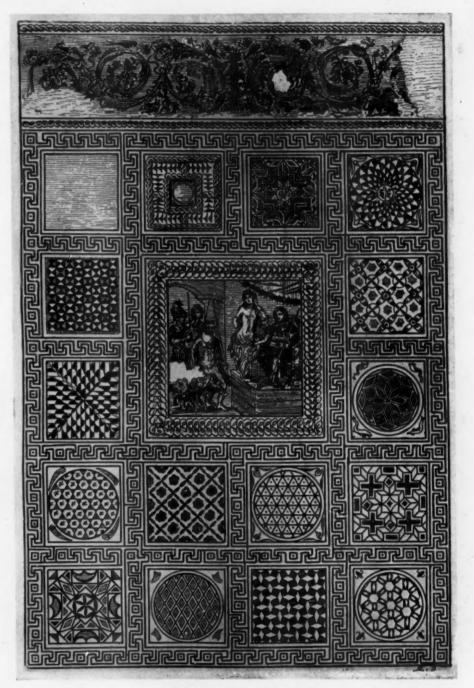
this day in a marvelous state of preservation, show that in these they built against time itself. So important did these people consider the permanent and indestructible floor that it was a matter of great pride with them to have them embellished and beautified more than any other portion of the house.

Pliny tells us in his time, that the man was considered a poor one indeed who could not afford to have at least one mosaic floor. This was usually in the entrance hall of his country home. The floors in these houses were of two kinds, either composed of geometric pieces of marble or small cut fragments. The Romans spoke of one as a floor in sectile

and of the latter as one in tesseræ as we now speak of a floor in tile, or in mosaic. Even when the Romans left Italy and went to places where wood was as plenty as with us in earlier days, we find as in their villas in Britain, Gaul and Germany, they used these wonderful mosaic floors in preference to those of wood.

This was the more remarkable as they were people of much experience in the tempering of tools and the working of soft material was certainly easier for them than the shaping of a hard one, and would have been not only simpler but cheaper. Though they knew nothing of microbes or the germs of infec-

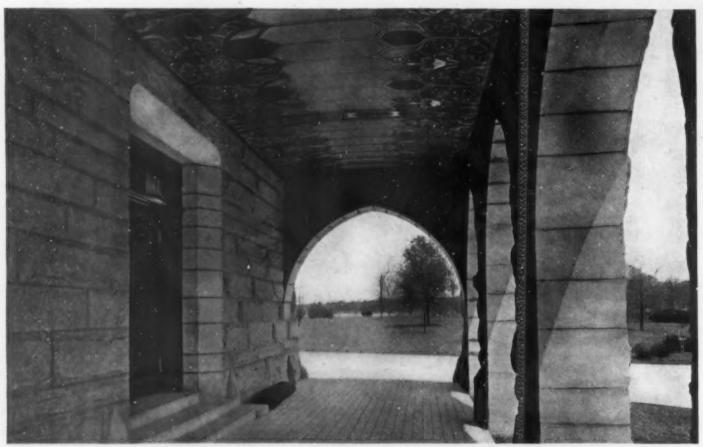
tion and disease. we cannot but admit that they knew much of cleanliness and valued it apparently beyond everything else, as their public and private baths and their extensive facilities for conducting water testify. We can clearly attribute to this cause their use of impervious floors which would be subject to no suspicion of decay, moreover, a material which was a poor conductor of heat and impervious to moisture undoubtedly appealed to their practical sense. These floors were conducive also to the safety of their household inasmuch as they are not inflammable. While they lived much in the open air, they built their houses so that they might enjoy in privacy



ROMAN MOSAIC FLOOR

this out-door existence, for the open court which was found in the center of each villa, was surrounded by the rooms of the houses, though open to the sky above.

The floors were planned to stand exposure from the weather as the partly overhanging roof was insufficient to shield them from decay. So again



PORCH WITH CERAMIC MOSAIC CEILING AND TILED FLOOR



CERAMIC MOSAIC PORCH OF SUBURBAN RESIDENCE

they used for their favorite mosaics, materials absolutely unaffected by the elements.

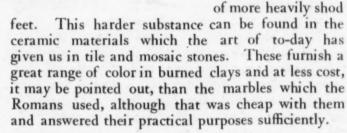
As has been said the needs of our modern life are different; our ideas of comfort and convenience have

extended and our problems of guarding against changes of temperature are more difficult to solve, but the principles which have been enumerated as guiding the old Roman in his day, apply as forcibly to us of the present time. In planning our homes to-day, we often in the multiplicity of considerations that crowd upon us, forget some 'detail, which perhaps in their simpler life was more obvious to them. This would in a measure explain the perfection that they were able to carry out in their houses. The tiled wall and floor in conjunction with the

bath-room are now so common that their advantages hardly need to be pointed out, still many people look upon the tiling of this apartment as a luxury rather than a necessity. Nothing contributes more to the endurance of the house against decay, which starts from decomposable floor and wall material, resulting from moisture and warmth, than the protection of

tiling, and the expense should not be considered. For the porch of the suburban or even the large city house which is exposed so that the rain may beat upon its floor, no more effective and certainly, as the







ROMAN MOSAIC WORK

THE IMPORTANCE OF EXPERT ADVICE IN PLANTING

OWADAYS, people have come to realize that an architect is a good thing, that he is profitable to engage, but they have not so universally come to acknowledge that the setting of the house in its surroundings, the working up the lawn's surface into pleasing effect and particularly the selection and distribution of trees and shrubs is a matter not to be settled offhand.

Advice from a landscape architect or from an architect who has had some experience in planting, should be sought. Given even a village lot, it can be made to look broader or narrower, deeper or shallower, by means of the planting. Furthermore, the selection of material is of the greatest importance, because one ignorant of the characteristics of trees and shrubs may select a lot of inferior kinds that as years advance get less attractive or outgrow the allotted space instead of a selection that grows more beautiful as years go by. If one goes about this the right way, he can frequently get some guiding information from his architect. This, of course, will not be as good as employing a landscape architect, but it will be far better than allowing the inexperience of one's own ideas to recommend how the grading should be done, where the paths and roads should go and what trees and shrubs should set off the grounds.

Even the most modest cottage cannot afford to lose this last touch of the designer's skill.

The Decorative Use of Beaten Gold and Other Metals

By GEORGE ETHELBERT WALSH

HE uses of gilding of gold, silver, aluminium or any combination of the different metals for household decoration are numerous, and their employment in the hands of an amateur can sometimes be made extremely effective. In the Colonial houses the metal coverings are of great value in giving finishing touches to moldings and carvings and also for forming the background on walls over which ornamentation is to be laid. The many cheap substitutes for beaten sheets of metal do not give the same wear or general effect as the genuine article, and where they are used the work must be frequently done over again. In gilding chairs and other furniture the same holds true. It is cheaper in the end to use only the thin sheets of the beaten metals and avoid the gold and silver paints.

Gold-leaf is produced by beating the metal into extremely fine sheets, some 2000 sheets usually making one ounce. These sheets are about one three-hundred thousandth part of an inch in thickness. The pure gold, before being subjected to the beater's art, is mixed with two parts of alloy of some harder metal. The amount of alloy in it determines both its price and its color. By using copper and silver as alloys different shades can be obtained, ranging from silvery

white to "red gold."

The gold-leaf comes in books of twenty-five sheets each, interleaved so that the sheets cannot stick together and are about three and one-half by four inches in size. The metal leaf is so fine and light that the breath will often blow it away and spoil it for any practical use. Many hesitate to work with gold-leaf for this reason as well as on account of the expense and the supposed difficulty of the art.

But the fact is it is cheaper, and almost as easy, to do good work with gold-leaf as it is with gold-paint, and the result is superior in every way. The gold-leaf once properly applied will not tarnish or lose its brightness, while gold-paint fades and quickly grows dull and dirty looking. It is not injured by the heat and gases of the atmosphere, and if it gets soiled with grease and dirt it can be washed off. Picture frames gilded with pure gold-leaf can be wiped clean with a damp cloth every week, and the first effect be preserved indefinitely.

When the outline of the molding or other surface to be gilded has been carefully marked off, a good size should be applied smoothly with a fine brush. The best size for household use is known as oil gold size or fat oil. This size can be purchased at a reliable paint shop or made at home. The only drawback to the latter method is that it takes much time and patience to get the size in proper condition. A quantity of linseed oil is placed in an open receptacle and allowed to stand in the open air. It becomes partially oxidized in this way. A thick skin forms on the surface, and this must be carefully removed from time to time. Then it is ready for use when it shows a sticky consistency, which may vary from six to ten or more months. A quicker but less satisfactory size is obtained by boiling the oil to the proper consistency. Gold size japan is another good size which has the advantage of quick application. But neither of these sizes has the same durability and elasticity as the first.

When the size has been applied it must be allowed to dry a short time, which may be from ten minutes to an hour. Then it is ready for the gold-leaf. The simplest way is to transfer each individual leaf to a small block of wood covered with roughly dressed calf skin. This block of wood should be an inch thick so it can be held firmly in the hand, and its length and width should correspond to the size of the gold-leaf. By deftly turning the leaf over on this leather surface, the transference can be made without difficulty. The thin leaf will adhere to the leather surface until something possessing more adhesive powers touches it.

The next process is to transfer the metal leaf to the surface covered with the size. It will immediately stick to the size, and with a knife it can be pressed and smoothed. A small soft hand-brush should be manipulated in smoothing out the gold-leaf, and this should be frequently rubbed on the hair to keep

the tip well oiled.

Only those parts of the leaf will adhere to the surface that come in contact with the size. The edges can then be brushed off with a camel's-hair brush. For this reason a good deal of trouble will be avoided by outlining the design with the size before the gold-leaf is applied. If this is not done properly in advance it will be necessary to remove parts of the ragged edges with a sharp pointed knife. In doing this there is the danger of cutting too much away and thus spoiling the effect.

Many gilders take the sheets of gold directly from the book and transfer them to the sized surface by a deft movement of the hand. This can be accomplished by the amateur after a little practice. The leaves are so light that the breath will often blow them away, and no good work can be accomplished in a room where there is any draft. Doors and windows must be closed, and no one should be admitted when

a leaf is being applied.

The loose parts of the leaves which extend beyond the edges should not be removed until the size has had time to dry and the gilding is properly set. Then the loose pieces can be lightly dusted off with the soft brush.

It will be seen that the whole process is a simple, one and quite free from complications. The two governing requirements are the proper preparation of the foundation for the metal leaf, and the care used in the application of the sizing and leaf. The amateur in a very short while will become expert enough to gild picture frames, moldings, plaster casts and even pieces of furniture, with very satisfactory and pleasing results. In regilding chairs and furniture the old gold-leaf or paint must first be scraped off thoroughly. Even a new surface should be carefully scraped, sand-papered and washed with warm water. If there is any grease on it a little borax should be used in the water. After cleaning the surface, it must be allowed to dry before the size is applied.

Silver-leaf is handled almost the same as gold, but as this is about three times as thick it is not such a delicate operation. Silver cannot be beaten as fine as gold, but nevertheless the leaves are thin enough to be blown away with the breath. The cost of silver-leaf is also much less than gold and the initial expense and waste of material are therefore an item

to consider.

Silver-leaf does not possess the chief advantage of gold of not tarnishing. The sulphur gases in a room will tarnish the best of silver-leaf. As a result of this aluminium-leaf has been substituted for silver in most cases, for it will not tarnish or lose its color. The silvery effect of the aluminium-leaf at the outset, however, is not so brilliant, and where temporary effects are desired the genuine metal will prove more

satisfactory.

A good deal of our furniture, picture frames and other gilded articles, which pass as gold-leaf, have no gold whatever on them. They are not painted with the ordinary gold-paints, but are treated with some of the numerous substitutes for gold. Thus Dutch metal is employed quite extensively in ornamenting cheap articles, and when new its effect is nearly as perfect as gold-leaf, but it quickly tarnishes and loses its luster. When varnished or covered with a transparent lacquer it will hold its color, but as soon as any part of the covering is worn off the Dutch metal fades. The metal is composed of an alloy of copper and zinc, and contains no precious metals in its composition.

Copper-leaf is also an effective substitute for gold-leaf, but like the Dutch metal it must be protected from the air by a lacquer or varnish. The copper has a very bright golden appearance, but if

exposed to the air it will quickly turn a deep red or brown. Thus it is not unusual to see parts of gold chairs with their sides a brown or red where the hands have worn off the lacquer. It is impossible to make a lacquer or varnish which will long resist the effect of warm moist hands placed on them. Cleaning them with a moist cloth and even dusting them tend to expose the copper-leaf to the tarnishing effects of the air.

There is another substitute commonly used in this work. Aluminium gold has more permanent effects than any of the others, and it comes the nearest to pure gold-leaf. It is really an alloy of copper and aluminium, and it will resist the effects of the atmosphere for some time. But to make the work satisfactory it is necessary to protect it with a varnish or lacquer. Other alloys of tin and copper and zinc and copper have the same disadvantages, and they should not be employed for any first-class or permanent work.

When pure gold-leaf has been applied it can be burnished to produce a more brilliant effect. But as a rule the ordinary gold effect is more beautiful for household ornamentation than the burnished. If for any reason the gilded surface is exposed to the air or gases it may be wise to protect it with a trans-

parent varnish.

Where specially fine work is desired a second layer of gold-leaf should be applied. This is done exactly as the first. An interval of several days should be allowed between the application of the first and second layer. The second layer will cover up any defects in the first and make the thickness of leaf so much greater that it will last twice as long.

When gold-leaf is properly applied it will last indefinitely on furniture, picture frames and interior ornaments, but a little care to protect it from unnecessary injuries should be exercised. Placed close to a steam radiator or hot-air register, the best gold-leaf must soon loosen and part with its brightness. Repeated wettings will likewise injure it permanently unless it is dried off each time. A wet or greasy rag left on the burnished surface for any length of time may cause a dull blotch to appear which no amount of polishing and burnishing can entirely remove. Such accidents are not likely to happen except in homes where careless servants are permitted to care for the furniture and decorations without proper supervision.

In gilding on glass which is to be seen only on one side, a coat or two of varnish is nearly always applied, followed by a coat of black japan. The sizing used on glass is different from that recommended above. The best is made by boiling in water the finest Russian isinglass until a thin, weak solution is obtained. This is applied to the back of the glass, and its transparent nature prevents any defects

showing through.

SUGGESTIONS FOR THE MONTH



The housekeeper's aim in August is commonly to think as little about the house as possible, to shut up the household goods and banish all thought of their welfare. But this is not always feasible and there are compensations for those who take their holiday at home well worth considering. A little boy once said that leap year came every four years in order to give an extra day for the inauguration of the President, and some housekeepers have thought, in like manner, that August has been included in the calendar that they might have a spare month in which to attend to neglected odds and ends. There are always things about a house which are not pressing needs, and therefore can be put off to a convenient season, but which, for this very reason, too often remain indefinitely undone, some small repairs here and there which add immensely to the comfort and preservation of the house and yet are not urgent. It is so easy to accommodate oneself to inconvenience—to grow used to the "dear dilapidation" that has come upon us gradually.

August is the time to have your reupholstering done, to have your mattresses made over and your pillows steamed. The family is smaller then and the workmen are less busy. It is a good time, too, to repaint that old set of enameled furniture, or to give those odd pieces a pleasant, dull, Flemish oak finish. With the windows wide open the paint or stain will soon dry and the odor will not linger. To be sure, these are the expediencies of the "comfortably poor," but the rest of the world, you know, are taking a makebelieve holiday.

In all probability expert painting, outdoors and in, and the necessary papering, and decorating, have been done in July, though it is a little better, perhaps, if it has been put off till August, for it will be fresher then when the house is reoccupied in the autumn. If so, care should be taken that the new surfaces are protected against flies, and if any long wet spell comes to have the house thoroughly aired lest mildew result.

It is also very important at this time to examine the cellar and the safes, and to have all drains inspected, that there may be no stagnation and no lurking fever germs. See also to your roof gutters, and down spouts, for if you have overhanging trees, they are apt to become clogged with natural debris and when the September rains come the result will be disastrous.

And for present comfort give the house as cool an appearance as possible, and make the porches thoroughly livable. Get comfortable chairs for the piazza whether they are picturesque or not, screen the light, and place a bowl of bright nasturtiums on the porch table with the current magazines.

Indoors, avoid a glare of light, but insure plenty of air and good ventilation. Stuffy, cool rooms are less agreeable than breezy warm ones. Keep the slip covers fresh, even if they have to be laundered in the middle of summer; have the matting on the floors wiped up with a damp cloth once a week, or once in a fortnight, and put a little salt in the water if you wish to restore the color; and don't have much bric-a-brac about. The pleasantest summer rooms are those in which the furnishings are simple. But it is also well to avoid the other extreme, to remember that the man of the house wants a home in August as much as in December, and that because the rest of the family are away the house should not be made dreary and uninhabitable. Curtains swathed in dust covers, furniture shrouded merely for protection, and pictures covered with sheeting muslin, even if cool, do not tend toward making a cheerful environment. Screen the windows to keep out the flies, and have the coverings attractive as well as useful. (Continued on page 8, Advertising Section.)

Keep the garden sightly by removing weeds, dead leaves and flowers, and tying up vines.

Tea roses and others that bloom in the fall should be given liquid manure. A tablespoonful of aqua ammonia in a gallon waterpot full of water is the proper quantity.

Roses and other hardy plants should receive a liberal mulch of well rotted manure, grass clippings and other similar material. This serves the purpose of keeping the roots of the plants cool and moist, prevents the earth from crusting, without preventing the rain water from getting to the roots.

Hardy hydrangea can be propagated from cuttings. Make the cuttings about four inches in length, remove all the leaves but the upper pair, and if the leaves are large, as they will most likely be, cut away a portion of each leaf from the tip downward; this will leave foliage enough to sustain proper circulation and not enough to cause wilting by excessive transpiration. Have the soil mellow and fully exposed to the sun. Set the cuttings in the ground and press the earth closely about the base and the stem. Water freely, and cover with a paper, for two or three days, during the hottest hours of each day. Be sure to remove the paper at night and do not replace it before nine o'clock in the morning. By the end of the third day this protection may be discontinued. If the weather is dull and damp the protection is not necessary.

This is the time to grow hardy rose cuttings. Procure strong shoots, of good length, plant deep in a well prepared bed, leaving at least two buds above the surface of the soil. Place over the cutting a glass fruit jar which should be pressed well into the earth. Keep the ground well moistened about the cutting, but do not disturb or remove the glass. Air is fed to the plant through the pores of the earth.

As the winter comes on, cover the ground around the glass jar even to the top thereof with coarse barnyard manure, and leave the bottom of the inverted jar uncovered for a window to the plant.

When the frost is out of the ground in the spring, remove the coarse parts of the manure and work that remaining in about the roots of the plant. Take away the jar. The cutting will by that time have been rooted and in condition for fine spring growth.

During this month Easter lilies, freesias, buttercups, oxalis and zephyranthes must be potted if good results are hoped for. Do not wait until it is too late for these bulbs, then pot and complain at the outcome in the spring.

In potting use porous, sandy soil and barely cover the bulbs. Water sparingly till the tops push up and then increase the supply. During the winter avoid a dry, hot room and give the plants plenty of light so they will not grow up slender. Do not hurry the growth.

Keep the chrysanthemums well watered during the month and look out for the "black aphis," an insect which has a decided liking for this particular plant. If this bug appears promptly dispatch (Continued on page 8, 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.

THE interior of the small house to be discussed this month is simple, practical and convenient in its arrangement. The slightly recessed porch gives directly into the living-room, which apartment serves as entrance hall and library as well. The dignified proportions of the room are accentuated by the simple architectural detail of the standing woodwork. Chestnut is the wood used here and it has been treated with a stain and dull finish. The wall is of rough or sand finished plaster, and has been tinted a soft sage green. The ceiling of smooth plaster between the beams shows a clear cafe au lait which contrasts attract ely with the color of the side walls. The rich nut brown color produced on the wood by the stain gives the effect of wood which has been colored by age. The varnish used as a finish here is entirely dull and in no wise detracts from this effect of natural old wood, although it brings out the grain of the wood perfectly. This is simple three coat work, and can be successfully accomplished by any workman of ordinary experience.

The floor of maple is left in the natural tone and finished in an effect of rubbed wax which is beautiful and easily obtained.

The mantel shelf is of the chestnut supported by wrought iron brackets. All hardware of the room has been given a black finish and resembles wrought iron. In style it is entirely without ornamentation and heavy in line. The same idea is carried out in the electric fixtures, there is no central light. At either end of the room lights suspended by chains are used with clustered shades of ground glass of quaint design. About the fireplace an unglazed ecru tile is used, thus bringing the color of the ceiling into the lower part of the room. At either end of the room long seats are built in. These serve a double purpose, as they cleverly conceal the radiators and assist materially in furnishing the room.

The windows in this room are casement, showing medium sized panes. These are ordinary stock windows and were bought for a modest sum. They were hinged and fitted in the openings and supplied with bolts. These windows add greatly to the quaint effect of the room and also materially improve the exterior aspect of the house. Two of them at the rear of the room are set on either side of the mantel shelf and in a line with it. Over the mantel is placed a plaster frieze showing in the shadows an almost brownish tone, and ivory in the high lights. This room thus completed looks almost livable and would require the simplest furnishing. The furniture chosen for it must, of course, be on plain and simple lines conforming with the spirit of the architectural detail of the room.

From the western side of the living-room opens the dining-room. Here the standing woodwork is of birch, which has been stained a forest green stain and given the same dull finish as the woodwork of the living-room. The beautiful natural shading of the wood is brought out attractively under this treatment. The wall is tinted a dull dark green. At eighteen inch intervals about the room are set strips of birch three and one-half inches in width,

giving a panelled wainscot effect. The strips are capped by the plate rail placed six feet from the floor line. The upper third of the wall above is covered by a tapestry paper showing green and dull blue foliage against a smoke blue ground. The hardware in this room shows the same craftsmanlike simplicity of design and is of dull brass as are the fixtures. The leading feature of this diningroom is the square alcove window in six sections looking to the west. These windows come within two feet of the floor line. They show the same square panes, though the window frames are long and narrow. A wide shelf or the extension of the sill stained and finished like the woodwork of the room will offer an excellent place for ferns and blossoming plants. The ceiling color is a trifle duller in tone than that of the living-room but is practically the same color. The floor is maple and finished in the same way as that of the adjoining room. A built-in buffet and corner glass cupboard, the lower part of which holds and almost conceals the radiator, go far toward furnishing this delightful little dining-room.

The shade of green chosen for the living-room walls shows the exact color of the reverse side of the foliage leaf of a La France rose, and is beautifully soft in tone, and from this the green of the standing woodwork and side walls in the dining-room deepens harmoniously and agreeably.

Keeping to various tones of one color for the living-rooms of a house has many points in its favor. It materially adds to the dignity of the room so treated and gives an appearance of added size. This latter effect is also assisted by treating the floors in the same manner, that there shall be no break in the color effect other than that supplied by the rugs which will be used upon them.

In planning the interior of the house it is well to try out the various colors for wood trim, wall, etc., before determining upon a scheme of color. Sample panels of the wood to be used for the trim and floors should be furnished to the stain manufacturers with request to obtain certain effects, if one's ideas are formed along this line. In this way the exact finished effect may be seen. As woods of the same variety show greatly differing characteristics in different localities, it is always best to have these tried out. Samples of wall tinting in various shades will also be supplied upon request by the manufacturers. These should be tried in combination with the wood panels. The choice of stain and finish for the wood trim as well as the color and treatment for the walls is, of course, largely influenced by the architectural detail of the room, as even the simplest and least expensive house should exemplify a definite and carefully worked out architectural idea, which is enhanced or belittled by the color scheme and furnishing accessories. Add to the wood trim, wall and ceiling color a bit of the tile to be used in the room, and select the hardware and fixtures from the excellent and complete line of cuts which can so readily be obtained from the manufacturers. With these in hand it does not require a great deal of imagination to see how the completed rooms will appear.

Leading directly from the dining-room is the butler's pantry. Here an exceedingly attractive effect has been obtained by the use of purely white tile set to the height of six feet, where no shelving or cabinet work occurs. The wall above is painted in oils in a dull yellow. The wood trim and doors of yellow pine are finished in the natural with a high gloss varnish and the floor of maple shows also a gloss finish. The sink of white enamel and the drain shelves beside it are exactly the right height, and opposite, set above three deep drawers, is a china closet with glass doors.

The kitchen has also the yellow pine wood trim, including a wainscot of tongue and groove three inch boards, topped by a shelf extending about the room and wide enough to hold platters and jugs of blue and white. The wall above this yellow wainscot is painted in oils a clean light delft blue. The windows set high have deep sills, and the sink is of enamel. Cleverly contrived corner closets and tables which may be dropped against the wall when not in use are a part of this convenient little kitchen. A small kitchen pantry has a window all its own set above the glass covered pastry board. One wall of this pantry is lined with enclosed shelves. A little porch, its latticed sides lined with wire netting, offers in summer days a cool and inviting retreat from the heat of the kitchen. On one side are set the laundry tubs. The lattice of this porch has been painted white. The floor is painted a shade of light russet which is less apt to show foot marks than other colors. The woodwork other than the lattice has been painted green which makes an attractive framing for the white lattice Glazed sash carefully fitted and removable are provided for this porch. These are put in place in the fall, so that it is as useful in the winter time as it is in summer, when the sash is stored away in the cellar.

Opposite the dining-room and opening through a small hallway from the living-room are the two chambers. The rear room of northeastern exposure has opening from it an ideal bath-room. The woodwork of the chamber has been treated with an exquisite clover pink enamel, the wall tint being several shades lighter in tone than the woodwork. The ceiling to picture rail is covered with a paper of delightful color and design. Against the ivory white background great clusters of clover blossoms with gray green stems and leaves seem thrown by a careless hand. This makes a charmingly dainty little room which one involuntarily fits out in white enamel furniture and embroidered muslin curtains.

The woodwork of the adjoining bath-room is treated with the white gloss enamel. A white tile wainscot extends to the height of seven feet. The wall above the tiling is painted the shade of gray green shown on the bedroom wall-paper.

The several plumbing fixtures in the bath-room are of the most approved sanitary type yet plain in finish and simple in design. The basin and slab are cast in a single piece and porcelain lined both inside and out and is supported on a pedestal of the same material. There being ample room a tub of Roman shape having a wide roll rim was used.

The southeastern chamber has the woodwork treated with the ivory enamel of eggshel gloss. A silver blue tint has been chosen for the wall, the upper third of which is covered by a paper, showing conventionalized blue blossoms against the white ground. The floors in these bedrooms are of the maple, finished exactly as those in the living-room and dining-room. In the bath-room the maple floor has received a high gloss finish.

The simplest of brass fixtures and hardware are used in these chambers and bath-room, though these, by their very plainness of design, are at once removed from the ordinary. The glass shades are clear and unornamented, of bell shape and spreading. Many people err greatly in the selection of the shades for their fixtures. Where the house is an inexpensive one, the less ornamentation that one obtains the better the effect. Also the quality of the goods purchased is sure to be much better than where any of the price is expended for the ornate.

At even as early a date as planning the house on paper it is possible to make selections and obtain estimates of the cost of many

things which go to make up the beauty as well as the real comfort of the home. There are firms who furnish cuts made from photographs, together with descriptions of variously priced bath-rooms, and when one is assured, as they may be, of obtaining absolutely sanitary arrangements within a given price, it is not difficult to come to a decision. Each fixture shown in the pictured room is priced in detail. This applies also to the selection and estimates of tiling. Size, color and quality may be determined, the measurement of your fireplace, bath-room and kitchen supplied, and one will know to a dollar what the work will cost. This is, of course satisfactory and helpful.

(Copyright, 1907, by Margaret Greenleaf.)

TINTING THE WALLS IN NEW HOUSES

I cannot accept my architect's suggestion that I leave my walls in white plaster until the house settles. This I am told will require at least a year. Kindly suggest something which can be done in the meantime. The plaster, of course, is smooth, as it is prepared to receive paper later. Is there anything I can put on which will not peel or rub off? Of course, oil paint would spoil the walls for papering later and would also be more expensive than I can afford.

There are prepared tints on the market which can be used attractively on plain walls and while the effect is not so good as when the rough or sand finished plaster is used, it certainly makes much more attractive and livable rooms than with the white walls. Some of these tints are exceedingly pleasing in color. If you will write to some of the manufacturers, you can obtain color cards from them and can make your selections of shade. If you will send me a self-addressed envelope I will be glad to send you the addresses of some of these firms.

HEAVY WALL COVERING

It is my desire to cover the walls of my house with some fabric which is heavy enough to disguise the fact that they are badly cracked. What would you advise me to use? If I canvas the walls would they require to be painted in oil to obtain a good color?

It is not necessary to paint canvas for your walls. There are many fabrics which are now manufactured which give excellent service as wall covering and may be utilized in just such situations as you describe. There is a wall covering made which closely resembles linen crash, although it is much heavier and is thoroughly stiffened. It comes in good shades and shows just sufficient texture to give a pleasing effect. This may be retinted in water colors or oils at any time that it seems desirable. Burlap is now sold under various titles and also in various qualities. These may be obtained in the self color ready for tinting or a very large selection of colors may be secured. I am sending you the address of several of these manufacturers as you have enclosed me a self-addressed envelope.

SELECTING APPROPRIATE LIGHTING FIXTURES

I am about to purchase the fixtures for my new house and would like to ask your assistance in deciding upon the style to select. The ceilings in my rooms are not at all high, although the rooms themselves are of good size. There are no beams but much woodwork, wainscot, etc., in the rooms. The woodwork is all dark in color and in two rooms is stained green. Would you suggest polished brass fixtures with Colonial glass shades.

Kansas City.

I think you would make a mistake to use fixtures suggestive of the Colonial in your house, as from the slight description you give I am quite sure it is not at all on Colonial lines. The polished brass could be used if desired, or, better still, the burnished or dull brass, or wrought iron fixtures would harmonize with the style of the rooms and woodwork. There are many fixtures made after the Arts and Crafts designs. Among these I think you would find something best suited to your rooms. I will be glad to supply you with the addresses of firms from whom you can obtain cuts and prices if you will send me a self-addressed envelope.

SELECTING THE WOOD TRIM FOR THE HOUSE

Kindly give me the benefit of your advice as to the best cheap wood to select for the standing woodwork of a new house. The house completed must not cost more than \$4000. I want something rather out of the ordinary and artistic as well as durable in the wood trim of the house, as I think this greatly affects the appearance of the interior. I shall use oak floors throughout but cannot afford a hardwood for the standing woodwork.

Wood Trim.

Ash, chestnut, cypress, hazel, poplar and white pine are all inexpensive woods and are also susceptible of beautiful effects under stain and finish as in most of them the grain of the wood shows up well when so treated. For the living-rooms of your house I would advise ash as a wood which will surely give you beautiful effects, although any of the others named would be satisfactory. There is but one which presents difficulty among those named, and that is cypress, as the sap in this wood makes it somewhat difficult to handle if inexperienced workmen are employed. The white wood or poplar is susceptible of good effects under stain and also takes an enamel very beautifully. The effect under mahogany stain is especially good, and if you desire a Colonial effect in your house I would recommend that you use white wood exclusively, enameling the standing woodwork and treating doors and handrail of banisters, etc., with mahogany stain. Over all the dark stains save the mahogany I advise a dull finish. Where mahogany is used a slightly rubbed effect is always better. In any case you would find that the ivory enamel for the chambers of your house would be attractive and satisfactory. If I can be of further service to you and you desire to send me a rough draft of the plan of your proposed house, I will be glad to take the matter up with you fur-

SELECTING ORIENTAL RUGS

I am desirous of purchasing some really good Oriental rugs. I have had no experience whatever in buying these, and while I think I know what is beautiful I am not at all sure I could judge of the quality. Can you furnish me with the address of some one who will make these purchases for me or some one who can put me in touch with the proper party from whom to buy. I enclose self-addressed envelope.

I take great pleasure in sending you the names you requested, and hope that you will successfully select your rugs. You are quite right in feeling that some knowledge other than an appreciation of the beautiful is necessary in selecting Oriental rugs, and I would heartily advise all who contemplate purchasing to be as careful as you have been.

SUGGESTIONS FOR A MORNING ROOM

Will you kindly give me suggestions for floor covering in a room, the walls of which are papered with paper like enclosed sample. The room is 12 x 15, western exposure, woodwork white enamel paint and floor of oak, it is used as a writing-room and morning sitting-room; has a large roll-top cherry desk in natural color and an old fall-leaf cherry table which we wish to retain. The other furniture can be adapted to the floor covering. I have thought that I would prefer one rug to several small ones, but am willing to consider any plan.

I should like suggestions also for materials to upholster a couch, and a rocking chair for the same room and for pillows for the couch.

I enclose stamped envelope and shall be pleased to receive an early reply.

L. A. F.

The sample of wall-paper you send showing a design in light mahogany and Gobelin blue on a deep wood tan ground will give you sufficient figure in the decorations of your room. Therefore I would recommend that you use a two toned tan, deepening to brown, rug or one showing various dull blue tones. Upholster your couch and rocking chair with cut velour in a shade of dull blue which is a little darker than the figure in the paper. This material may be obtained in fifty inch width for \$2.35 a yard. It has most excellent wearing qualities and does not fade. A rug, in size 8 x 10 in two or three tones of one color might be used together with one Oriental rug,—a runner, showing the wood color as a ground with blue, dull red and black figures. Such a rug in size about 3 x 12 would fill out agreeably. This should cost not more than \$30. The other rug may be had in domestic weave, Wilton, Royal Wilton or Brussels. The best quality of Brussels may be bought for about \$25. The Wiltons are rather more expensive. The cherry furniture should look well in this room, as the coloring will harmonize with one figure in the paper. I would suggest that any furniture you purpose buying be of the same tones, either mahogany or cherry.

For covering the pillows of your couch I recommend that you use raw silk, either the brocaded or plain, in tones matching the three colors of the wall-paper. The brocaded raw silk is \$3.35 a yard, fifty inches wide. The plain raw silk is \$1.50-a yard, thirty-six inches wide.

HARMONIOUS COLORS FOR ADJOINING ROOMS

I have a figured wall-paper in my hall which shows dull reds, greens, and browns. The room directly off the hall has been papered in gray and the combination is not agreeable. I must keep this room light in color and also I must use a paper. What would you advise? My dining-room too has caused me much thought, as I cannot obtain a satisfactory effect here. My furniture is golden oak; this probably is my real difficulty, but at the time it was purchased it was the best of its kind, and I cannot afford to change it at present. The woodwork of my dining-room is of pine and I propose treating it in some way to improve it, if this be possible. It is certainly most unattractive as it now stands. It has been finished with hard oil and shows the strong yellow of the natural pine. I intend to repaper the walls in the dining-room, and also in line with this will you tell me if plate rails are still used.

R. F. D.

I would suggest that the best color for your room opening off the hall would be of deep tan showing something of yellow. This is a color which lightens and brightens any room in which it is used. For the woodwork of your dining-room I advise first a varnish remover. This will thoroughly cleanse the wood of its present hard oil finish and enable you to treat it as new. Select some rich soft shade of brown which will harmonize well with the golden brown grass-cloth which I would recommend for covering the lower wall, this to extend to the plate rail, which you should by all means introduce. Above the golden brown lower wall, cover the upper two thirds with wall-paper showing yellow and brown conventional figures against a clear ivory ground. Use cream net at your windows with overdraperies of light golden brown raw silk. With this treatment you will find your golden oak furniture will look extremely well as it will become a part of the color scheme. Also this room will open well off of the yellow tan used in the adjoining froom.

AN ATTRACTIVE WINDOW TO ENLARGE A ROOM

I wish to add to the end of a 14 x 18 foot room a combination fireplace and window. My idea is to secure privacy and at the same time to have a good outlook. I am enclosing you blue-print of the idea as it has been worked out by my architect. I think that the fireplace as shown in the blue-print lacks the old-fashioned look and cosey appearance I should desire and it also is too narrow. I would like to have the chimney of the fireplace extend to the ceiling and the mantel extend around over the windows and along into the main room forming the top of a seat which I would have (Continued on page 8, Advertising Section.)



CONDUCTED BY W. C. EGAN

TRIMMING JAPANESE FLOWERING APPLE TREES

Two years ago I planted quite a number of young Japanese flowering apple trees which are growing nicely. Lately I read an article in a horticultural paper that young trees should be watched and receive proper cutting back in order to maintain a well balanced head, but the article gave no explanation of how to proceed. Will you please supply the deficiency?

A. B. J.

Nearly all trees may be improved by proper training when young. It is then that they form the framework that dominates their future shape. Young and vigorous members of the Pyrus family form dense heads, many of the branches crossing each other, becoming chafed by the constant rubbing against each other, thus forming wounds, attracting insect and fungus invasion. They are easily trimmed, preferably while dormant, but if the cutting in is not too severe it may be done at any time.

First, cut out all branches that rub against another one, unless one of these are wanted to fill in vacant spaces and will do so. These are naturally those that grow inwards or across from side to side instead of outwards. Then take a good look at the tree and bear in mind that you have two objects in view. One to form a well balanced head and the other to let light into the interior. Retain the branches as low down as possible and endeavor to have them all so arranged that there are no open spaces. If a gap occurs see that if by pulling the two branches bordering the gap closer together, it may be closed. If so, tie them in position, but in all cases of tying be careful not to tie closely around the branch or trunk as the increasing growth might cause it to cut into the bark. Make loops. Sometimes there are two branches at one side of the opening, one of which may be pulled into the vacancy. If in pulling these branches together they are inclined to point in towards the trunk, or some one main branch placed elsewhere may do so, it becomes necessary to bring them out and retain them there. To do this, take the more slender part of a fishing cane and cut a length long enough to extend from the trunk to the branch when in position. Cut a small hole in the cane near each end in the same manner a boy does in the hollow bark of the willow when making a whistle, running a strong string through it and out at the end, tie it, but leave the ends long enough to tie around the trunk at one end and the branches at the other. Some branches are quite contrary and may swing sideways, but guy strings to neighboring branches will remedy that. The cane will hold the branch out from the trunk and one season's growth generally sets them in position and the cane may then be removed.

You now have the general outside framework in position and have cut out all intercepting branches, now cut out all lateral branches, young and old that point inwards that would in time grow across the head, also all weak shoots proceeding from the trunk. This should lighten up the interior considerably. Cut a few inches, more or less, off from the tips of all branches, more from the longer ones. You will find dormant buds on all of the young growth, the upper one left after cutting generally being the one that will form the new top, the one below it often pushing out also, thus forming a branching head. It is well to cut just above a bud,

situated on the outer side of the shoot or nearly so, or at a side where it is inclined to be open. If one or more branches are much longer than the others cut them in. These trees seldom form a single leader as does the maple, but has numerous ones forming a round headed tree. These may also be cut back a little. The treatment in after years generally consists of cutting out any cross branches and keeping the interior somewhat open. Avoid shearing.

SHRUBS SUITABLE FOR A SHADY SITUATION

Please give me a list of shrubs that will grow at the north side of a high wall where it is quite shaded.

Ribes Alpinum, the mountain currant, Berberis aquifolium, B. vulgaris and B. Thunbergii, dogwoods, cotoneasters, thorns, hypericums, privets, sweet briars, snowberry and the mock oranges. The periwinkle, Vinca major, could be used as a ground cover.

THE POLYANTHA ROSE

I saw in California last winter boutonnières of a dainty miniature pink rose. They use mainly the buds which are exquisite in shape and coloring. The florist said they called them "Ceciles." Can you tell me where I can get plants, and are they hardy here in Northern Ohio?

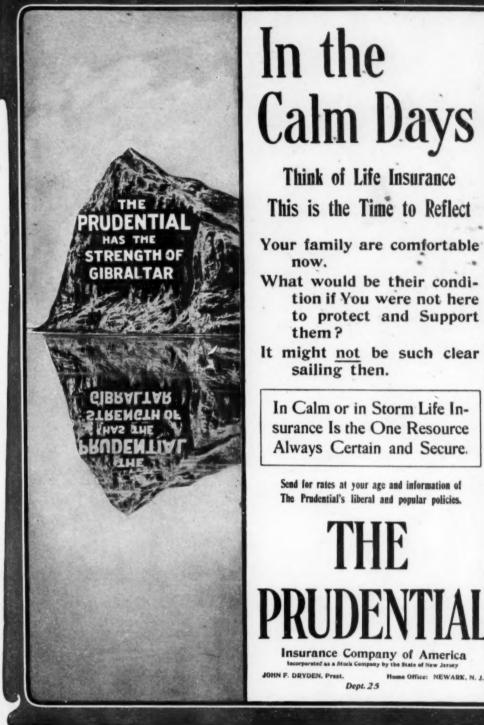
In California the polyantha rose, Mlle. Cecile Brunner, is often used for buttonhole bouquets and for spray work. No wonder you liked it for its buds are most exquisitely formed, resembling a piece of bisque. You can grow it by giving it proper winter protection. It does not like covering with soil, but when tied down and covered with dry leaves with a water-proof box over all, they come through nicely. Most all of the nurserymen carry them. They are known as Fairy Roses.

TRANSPLANTING HEPATICAS

The lovely hepaticas are in bloom in the woods. Can they be transplanted? If so, when? Mrs. E. M. B.

Yes, they may easily be transplanted to your garden. Their chief requirements are good drainage, open shade and an addition of some leaf-mould to the soil. While they like plenty of moisture in the spring, they will stand drouth in the summer if they are in a shaded situation. Good drainage in their case means good surface drainage; consequently, you should plant on a slightly sloping bank. If you have no sloping bank, make one. Select a position shaded by some tall growing tree, raising the back of the bed a foot or even eighteen inches, holding the soil in position by small boulders or rock work, making the outline of the rock work irregular. Plant at the back of the rocks almost any of the meadow rues; Thalictrum aquilegifolium is the finest one in flower, especially its variety alba. They will grow in quite shady situations. Then in







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SUGGESTIONS FOR THE MONTH

(Continued from page 80.)

THE HOUSE

But beware of the moths! August is their harvest time and the housekeeper who is at home can often prevent their ravages by looking into her chests in the trunk room and renewing at this time the proverbial "ounce of prevention."

THE GARDEN

by using a spray of tobacco tea, made by pouring boiling water over tobacco stems, and use when cold. About the middle of the month begin the feeding process. Let the food consist of a daily portion of manure water. This will enrich the color of the flowers. Continue until the flowers begin to show color, after which let the stimulant be gradually withdrawn.

Do not neglect the lawn. It should be mowed at least once a week. Do not rake or sweep the cuttings off, but allow them to lie just as they fall from the mower; they serve to shade the grass and in the course of time will work in as a mulch and fertilizer. Use the hose freely — water freely at least once in two days; if done daily all the better.

CORRESPONDENCE

(Continued from page 83.)

under windows and along either end of the room, finished with an end like a Dutch settle. I would like the whole when finished to look thoroughly comfortable and inviting for the living-room, but at the same time inexpensive. Will you kindly suggest interior finish for the whole room. The wood is of ash and the room has a wainscot three feet high. Please suggest color and treatment for the ash. My preference for furniture is mahogany and I have a few nice pieces in this. There is one large window in the room looking north. D. J. H.

I would suggest that you cleanse the present finish from your ash. Then treat it as new wood, using a green stain which is rather dark and rich in tone, and finish without gloss. The wall above wainscot to be covered with the wall-paper like the sample I send you. This shows a tapestry effect in soft greens and wood browns, worked out in blossoms showing shades of dull red. This latter will harmonize well with the brick chimney and fireplace and the green you will note is in entire harmony with the stain suggested for the woodwork. I have secured a drawing for you showing the fireplace and windows in the end of the room as you describe it. I hope this will be to your satisfaction.

GARDEN CORRESPONDENCE.

(Continued from page 84.)

front up on the highest part of your "slope" and near the rocks, plant any of the columbines. The common red flowered one is the most permanent. Add plenty of leaf-mould to your soil and slope the bed down to a few inches in height. Some day in late August or September, after some rains have softened the soil, go into the woods and take up the plants with as good a ball of soil as possible. Don't dump them into a wheelbarrow one over

another and thus shake most of the soil from the roots. Plant and then give a good watering. This is essential, as it will wash the soil close to the roots. You may plant quite closely, or you can plant so that the center of each plant is ten inches from the center of its neighbor. This is based upon the presumption that you have collected good sized clumps. In between the plants you can place later on in the fall any spring blooming bulb you desire; Scilla bifolia, S. Sibirica will give you beautiful blues and Chionodoxa Luciliæ a blue shading to a white at the center, all growing about the same height as the hepaticas and blooming at the same time.

CONSTRUCTING A MANURE BARREL

What is the proper way to construct a manure barrelso as to keep the water clear when drawn off? B. R. R. My faucet keeps getting clogged.

If you are using a full sized barrel or a larger cask, make a stool about one foot high, having slats across the top. Slip the stool into the barrel and weight it with stones. Collect pure manure droppings and put them in a strong bag, one generally used for vats, and place the bag upon the stool. If you are using a half barrel or cask, make a frame the width of the barrel and nearly as high. Stretch across the frame a heavy galvanized wire mesh, say one inch mesh, and use it as a partition across the center of the cask. Place your manure on one side of this partition. It need not be bagged. Put your faucet in at the other side of the cask. Use a molasses faucet and you will have no clogging.

MULCHING PERENNIAL PHLOX

I understand that the perennial phlox will do better if the roots are mulched. What material is the best to use, neatness and effectiveness consid-

The perennial phlox, being a shallow rooted plant, dislikes a dry, sun-baked soil at its roots, hence mulching is beneficial. Very old cow manure makes the neatest mulch if screened, although old, well rotted horse manure will do. Take a screen such as masons use in screening gravel, upend two barrels or boxes and rest the screens on them. Run a wheelbarrow under it. Screen only a shovel or two at a time, using a short board to scrape the manure to and fro on the screen. If the manure is spread out to dry before screening it is done more quickly.

TYING DAHLIAS

Which is the neatest way to secure dahlias against being broken down by heavy winds?

Go to a dealer in broom-corn and broomhandles. Buy their second grade broom-handles. Paint them a brown or green. If placed under shelter over winter they will last for years. Get a few long mop-handles for the taller ones. Use four stakes to a large plant, making two ties, one near the bottom and one higher up, running the strings all around the plant. Use a heavy, but soft string.

GROWING FOXGLOVES

My foxgloves die out. What is the matter? I. E. S.

Foxgloves, digitalis, are biennials. They bloom the second year from seed, and then die at the



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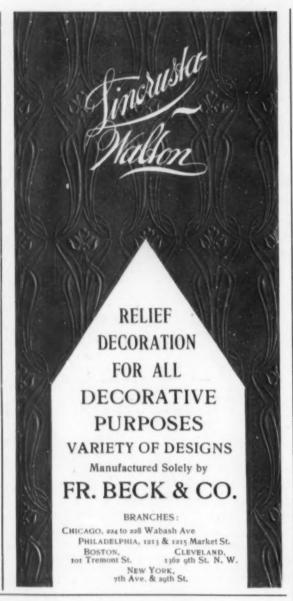


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crown. New shoots often break out from the old roots near the crown, but are seldom of any value. In congenial situations, the foxgloves will self sow, and if the winter is mild, the plants will live over and bloom the following season, thus keeping up the group. The safest way, however, is to start your seed in May or June, and carry the plants over winter in a cold frame. Canterbury bells may be treated the same way.

THE NEW RED SUNFLOWER

I bought some seed this spring of a novelty called the new red sunflower. Not one seed sprouted. A neighbor had the same experience. Is it a fraud ?-R. O. M.

No. The germinating power is not a fraud. What the flowers will be remains to be seen, but if they are like the representations in European publications they are worth considerable trouble

to grow them.

Quite often a hybrid will not produce any seed, as is the case with that most lovely Delphinium belladonna, and again when a hybrid does produce seed, it is often weak in vitality, and is best sown as soon as ripe. The red sunflower seed is undoubtedly of this class, and being gathered last fall, has lost considerable strength since then. This novelty is a doubly crossed hybrid. The mother is a hybrid echinacea, one of the coneflowers, crossed with the pollen of one of the common sunflowers.

Helianthus multiflorus. I made one sowing in February in the greenhouse and out of fifty seeds obtained but one plant. I then made another trial, taking extra precautions and obtained twenty-two plants from the same number of seeds. I sowed in an ordinary wooden flat, covering the seeds lightly and then put over the soil a quarter of an inch of powdered charcoal, which in turn was covered an inch thick with sphagnum moss. Most perennials require a long time to germinate, and in the moist air of a warm greenhouse the soil becomes coated with a scum of fungoid growth detrimental to other plant life. The charcoal prevented that and the sphagnum preserved and maintained an even degree of moisture.

LILIES AND ORCHIDS

AN interesting book for the botanist, the enthusiastic layman or the student.3

The family of lilies is one of the most interesting and one of the handsomest flower groups we possess, and the orchids are more nearly related to the lilies than to any other family. The author presents in this volume what she characterizes as "an informal sketch of these flower families growing in the United States, east of the Rocky Mountains and in Canada, together with a few stray relatives from the Pacific slope, illustrated by faithful color studies of the more prominent examples."

*" Lilies and Orchids," by Rosina C. Boardman. Robert Grier Cooke, Inc., Publishers, New York.

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THE BRONZE CANCEROID

SOME curious particulars regarding the presence of bacteria on ancient bronze implements has lately appeared in "Nature." The disease makes its appearance in the form of small excrescences, which are centres of rapid oxidation. On scraping off a little of the material from these points it is found to be swarming with bacteria. This "Ulcerative Disease of Bronze," or "Bronze Canceroid," as it has been called, has been described by Dr. W. Frazer, in the "Journal" of the Royal Society of Antiquaries of Ireland. According to this authority all objects of antiquity fabricated from metallic copper, and its important alloy, made by adding tin in certain proportions, are liable to be attacked by this destructive corroding affection. The bronze disease produces a remarkable disintegrating effect on the object it attacks, and there are good reasons for considering it possesses infective powers, spreading like leprosy through the substance of the metal, and slowly reducing it to an amorphous powder. Further, there are substantial grounds for believing it capable of being conveyed from surfaces already suffering with it to those yet uninfected. This sign of antiquity has not been overlooked by the counterfeiters of such objects, and we are told that skilful artists of these false antiques are known to inoculate their productions with spots of the bronze disease.-Boston Transcript.

SCHOOL GARDENS IN CALIFORNIA

HE second year of school gardening work closed with the closing of our schools, June 29th. A number of public spirited women two years ago, conceived the idea of educating our future citizens in the knowledge of plant life by teaching the children how to care for plants and make the most of the great natural advantages with which we are endowed, in the beautifying of home grounds and public parks, and some system in street tree planting that shall eventually make our city the most beautiful in the world. When the subject was first presented to our board of education they looked upon it as a harmless fad of a few visionary idealists, and gave these earnest, thoughtful women permission to try their experiment in one

(Continued on page 14.)

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Illustrating a Concrete Block House of Dr. H. C. Howard, Champaign, Illinois, Prof. F. M. White, Architect, roofed with Asbestos "Century" Shingles, laid French Method.

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San Francisco, Cal., 17-23 Beale St. and 12-24 Main St. Seattle, Wash., Railroad Way and Occidental Ave. Kansas City, Mo., 1221-1223 Union Ave. Waco, Tex., 709-711 Austin Ave. Pittsburg, Pa., 634 Smithfield St. Atlanta, Ga., 7-9 S. Broad St. Columbus, O., cor. Long and Third Sts. Cleveland. O., 61 Frankfort St. Buffalo, N. Y., 43-45 Pearl St. Buffalo, N. Y., 43-45 Pearl St. Syracuse, N. Y., 212-214 S. Clinton St. Rochester, N. Y., 55 E. Main St.

ANNOUNCEMENT FOR SEPTEMBER

"AROHEAD" AN IDEAL SUMMER HOUSE

N the California shore of Lake Tahoe, that crystal sheet of water, whose depth has never been fathomed, nestles a summer home, which seems almost ideal. Among the stately pine trees, Mr. W. S. Tevis of San Francisco has developed a retreat for his family and friends. The site possessed every natural advantage and not one of them has been overlooked or marred by bringing under control the native conditions, or weaving into the picture the art of the landscape architect, to the lasting glorification of them both. Of all of this, the Japanese garden, the rustic bridges and gateways, the aquatic gardens, the rustic teahouse and last of all the house itself, Mr. Charles Alma Byers, has written, in a way that makes one feel that the closing vacation has been passed there and that the scenes spread out in the illustrations are the ones that have just been enjoyed and have been but recently left.

THE BALTIMORE COUNTRY CLUB

In the series of articles on "AMERICAN COUNTRY CLUBS," "THE BALTIMORE COUNTRY CLUB" is described by Mr. Day Allen Willey. It is little wonder, that, where life in the open is so intimate a part of the social fabric, should be found a country club of such extensive membership and broad influence. Its scope embraces not only golf and tennis but also cricket, polo and all forms of outdoor sports. The club house which has recently been enlarged and refitted is extremely attractive and in most excellent taste. The membership list reads like the "Blue Book" of Baltimore Society.

FALL PLANTING

"FALL PLANTING" is considered by Frank H. Sweet. He points out what may be gained by planting hardy trees, shrubs, vines and perennials in the autumn and directs attention to the risks which must be anticipated, that they may be eliminated or reduced to a minimum.

THE USE OF PORTLAND CEMENT FOR DWELLINGS

Such rapid strides have been made in recent years in extending the uses of Portland Cement that an almost distinct architectural style has sprung into existence, born of the desire to employ such an enduring and fireproof material in the construction of dwellings of all classes. Mr. Seymour Coates describes the several methods now in vogue for its use in this direction and illustrates his subject with photographs of one of the most common types, namely, stucco on metal lath. This form of construction seems to immediately suggest the Mission style of design. Most of the houses shown have their inspiration from these old monuments of the eighteenth century, modified to accord more closely with the necessities of to-day and tempered with the feeling of any one of several countries.

THE SMALL HOUSE WHICH IS GOOD

The September issue will contain an interesting sketch by Samuel Howe on the country house of Mr. Austin Willard Lord, the well-known architect. It is located at Waterwitch, N. J. and is a delightful solution of the many problems which presented themselves to the owner in his endeavor to supply the necessary conveniences for his family within the limitations which he had set for himself. The realization of his ideals is shown in the artistic simplicity of the design, the compactness yet freedom of the planning and in the home atmosphere which seems to pervade it all.

Under the same caption will appear a brief description of the modest house of Mr. E. H. May of Pasadena, Cal. Covering about the same area and intended to encompass about the same results as in the A. W. Lord house it is interesting to compare them and to see how similar propositions are affected by individual and family suggestions, by environment and by different ideas as to the proper places to apply the pruning knife of economy.

A HOUSE FOR \$4,500

Mr. Walter P. Crabtree, Architect, presents a pleasing house costing the above amount having many advantageous features. The object was to design a dwelling that should be above all else, domestic, personal and livable as well as convenient in its arrangement. As in the majority of "small house" problems the question of cost had to be considered and the limitations set be strictly observed.

BIRDS ARE THE GARDENERS' BEST FRIENDS

Investigations which have recently been carried on under the auspices of the U. S. Department of Agriculture have established the fact that at least 75 per cent of the food of birds which frequent our gardens and yards, consists of insects most of which are harmful in some manner to the growth in our gardens. Mr. Craig S. Thoms in commenting on this fact, urges the encouraging of these friends to make long visits and where possible to coax them to take up permanent residence in our orchards and grounds. He points out that the small amount of fruit consumed by the birds is inadequate pay indeed for the service which they render.

UP-TO-DATE BATH-ROOMS

Every device and every material whose use tends to improve the sanitary conditions of the home is to-day seized upon with avidity, and the cost is a secondary consideration, provided the results secured are satisfactory.

The bath-room of twenty years ago presented a field rich in possibilities. Here lurked the germs of disease, fostered by the dampness and coincident decomposition.

Charles J. Fox, Ph. D. in an interesting article dwells upon the growing use of tiles for floors and walls of bathrooms and even for the ceilings. This material being inorganic and non-absorbent, would seem to be the ideal one for the uses indicated.

THE DEPARTMENTS

"The Editor's Talks and Correspondence," "Suggestions for the Month" and the "Garden Correspondence" all bristle with timely items—which cannot fail to be helpful to the home builder or furnisher—and to the garden and flower enthusiast.

REFERENCE TABLE OF

WOOD FINISHES

THE Unique Wood Tints manufactured exclusively by the Chicago Varnish Company are applicable to the least costly as well as sive woods. These stains show the various expensive woods. natural shades as produced by time and weather, as well as such coloring as is appropriate for use in houses where the modern style of decoration prevails.

DEAD-LAC

To preserve the color and the wood it is necessary to protect them against dampness, dust and smoke. Most varnishes produce an effect of very high gloss to which many object. Where a and smoke. Most varnishes produce an effect of very high gloss to which many object. Where a dull finish is desired, the Chicago Varnish Company has offered *Dead-Lae*. For the past several years this varnish has met the requirements of the artistic architect and his client. *Dead-Lae* is a true lustreless varnish and has received the un-qualified endorsement of the highest authorities. On a surface protected by this finish it is very hard to discover any treatment whatever, as it in no wise obscures the delicate lights and shades of the natural or stained wood. It is very durable and does not spot with water; in fact it may be wiped off with a damp cloth with perfect

SHIPOLEUM

Where a gloss finish is desired over the stained or natural wood, Shipoleum is recommended where paleness is not essential (in which case Hyperion or Palest Crysolite is advised). For the service department of the house where the wood is often left in the natural color, Ship-oleum should always be used. Three coats over the natural wood will give the most satisfying results. This varnish is thoroughly tough and durable and is unaffected by heat and moisture, and although it is used in the highest grade of work, it is invaluable for hospitals, laundries, stables, etc. It is easy to apply and dries It is easy to apply and dries rapidly.

EGGSHEL-WHITE AND IVORY EGGSHEL-WHITE ENAMEL

Where an enamel finish is desired for the Where an enamel finish is desired for the standing woodwork, this product supplies an eggshell gloss finish in the soft ivory tone seen on the woodwork of the really old Colonial houses, or, may be secured in the pure white. This enamel supplies an effect heretofore obtainable only by careful polishing at the hands of skilled workmen. With Epeshel-White this is obtained by simply spreading the material with a brush. It is therefore a most economical as well as a most exquisite finish. Chicago Varnish Company's Flat Lead should always be used for under coats excepting in bath tubs. under coats excepting in bath tubs.

SUPREMIS AND FLORSATIN

These two floor finishes made by the Chicago Varnish Company are recognized as the most durable as well as the most beautiful on the market. Supremis is a gloss finish; Florsatin has the full beauty of wax. Write for "Architectural Finishes" and booklet

write for "Architectural Finishes" and booklet on the treatment of floors. These will supply you with full information in regard to the products of the Chicago Varnish Company.

If you are contemplating building or remodelling, write to Margaret Greenleaf, Consulting Decorator of the Chicago Varnish Company, 32 Vesey Street, New York. Send, if possible, a rough draft of your floor plans, stating exposures. Vesey Street, New York. Send, if possible, a rough draft of your floor plans, stating exposures also character of standing rough draft of your floor plans, stating exposures and dimensions of rooms; also character of wood to be employed for floors and standing woodwork. You will receive complete suggestions for wood finish, wall treatment, drapery materials, tiles and fixtures for use in your house. Send ten cents to cover postage for "Home Ideals," a booklet prepared by Margaret Greenleaf for Chicago Varnish Company.

The Chicago Varnish Company's address in New York is 32 Vesey Street; in Chicago, 31 Dearborn Avenue-





For specifications see Sweet's Index, Page 744, or get the Porcelites
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school yard. The result was a revelation to those interested enough to go to see the work done, and so great was the benefit to the children thus engaged, that this year the idea was carried out in four schools. Vegetables as well as flowers were grown, and in the majority of cases the beds would have been a credit to any professional gardener. Eighty-five dollars in cash were distributed in amounts of \$1 to \$5 each for the best work done. Mayor McAleer was present at the entertainment given in the Bethlehem Institute by the children, and as each winner was called up for his or her award he gave each a hearty shake of the hand and a pleasant word of encouragement.

This year the work was not begun until February. The coming school year the campaign will be begun in October, for two principal reasons. First, it has been learned that boys and girls interested in this garden work are better pupils; are much more easily controlled, and have a respectful, dignified manner in the presence of their teachers and visitors who call to see their work, that children have not who are not thus interested.

Second, to teach the children and through them the parents that there is no necessity of ground lying idle in this delightful climate, during the fall and winter months, and that it is possible to have flowers and vegetables every day of the year in the open air. Then, too, the promoters of the scheme have the thought in mind of teaching the children perseverance, the habit of sticking to a job until it is finished-an accomplishment they must all have if they hope to be successful in life.—P. D. Barnhart in Florists' Exchange.

JOSEPH BONOMI

HE was born at Rome in 1739 and studied architecture under the Marchese Teodoli. In 1767 he was invited to England by the brothers Adam, and was for many years employed by them as an assistant and architectural draughtsman. The acquaintance which he formed in London with Angelica Kauffman, then in the zenith of her fame, led to his marrying her cousin and ward, Rosa Florini, in 1775. When Angelica returned to Italy, after her marriage with Zucchi, the painter, she induced Bonomi to do the same, and he left England in 1783, taking with him his family of three young children; but he did not remain in Italy above a year. About five years after his return, in November, 1789, he was elected an Associate of the Royal Academy, but never raised to the rank of R. A., although Reynolds interested himself very warmly in his behalf, and did all that he could to obtain for him the professorship, which was bestowed on Fuseli. Bonomi died March 9, 1808, leaving a widow and six children, the eldest of whom also practised as an architect; and another son was known as an authority on Egyptian antiquities. Bonomi's chief professional works were additions and alterations at Langley Hall, Kent, 1790; the chapel of the Spanish Embassy, near Manchester Square, London, 1792; Eastwell House, Kent, 1793; the pyramidal mausoleum in Blickling Park, Norfolk, 1794; Longford Hall, Salop; mansion at Laverstock, Hants, 1797; mansion at Roseneath, in Dumbartonshire, for the Duke of Argyll, 1803, which is his most celebrated work, although chiefly remarkable for the heresy, if not the solecism, of an entrance-portico with a column in the centre. The reason assigned for this caprice is that, as the portico was intended for carriages to drive through, it was thought a column in the centre of the front would express its purpose better; yet, besides having a most awkward effect in itself, a column in that situation is not a little objectionable, on account of its obstructing the view from the entrance-door. Nevertheless the design is praised as displaying originality of genius. Bonomi also made designs for the new sacristy of St. Peter's at Rome, of which edifice he had been appointed honorary architect in 1804 .- The Architect.

SILENCE LAWS IN BERLIN

NO other large city is as quiet as Berlin. Railway engines are not allowed to blow their whistles within the city limits. There is no loud bawling by hucksters, and a man whose wagon gearing is loose and rattling is subject to a fine, says the "Washington Post." The courts have a large discretion as to fines for noise making. The negro whistlers who make night shrill and musical in Washington would have a hard time of it in a German community. Strangest

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"She kept to the side of the hedge, raising her skirts a little, for the grass was long. A few yards farther on was the gate. The soft swish of her silken draperies as she stole along became a clearly recognizable sound against the background of intense silence. Macheson had been leaning against a tree just inside. He opened the gate. She stepped almost into his arms. Her white face was suddenly illuminated by the soft blaze of summer lightning which poured from the sky. He had no time to move. to realize. He felt her hands upon his cheek, his face drawn downward, her lips, soft and burning, pressed against his for one long, exquisite second. And then-the darkness once more, and his arms were empty."

— From Oppenheim's great novel in the August Pearson's.

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House & Garden

of all, piano-playing is regulated in Berlin. Before a certain hour in the day and after a certain hour in the night the piano must be silent in that musical city. Even during playing hours a fine is imposed for mere banging on the piano. In Paris it is only during the carnival and on fête days that the sound of the French horn is tolerated. At other seasons it is rigorously prohibited by the police. German intolerance of noise is not a recent thing. Wallenstein, who demanded absolute quiet, had 130 houses torn down in Prague and sentries posted all round in the distance, to secure silence. There is a tradition that farther back in time a Bohemian shepherd, seeing the monk Adelbert asleep, blew on his pipe in mischief. The monk called down the curse of deafness on him.

BOUNTY FOR TREE-GROWING

THERE is a law on the statute books of Pennsylvania which ought to have a wide circulation. It is "An Act for the Encouragement of Forestry." This law takes the best means possible to encourage owners of land to preserve and propagate timber-trees, for it allows a reduction of taxes to the owner of forest land which comes up to certain requirements of the act. The first man to take advantage of the new law is an Allegheny County farmer, Mr. Tenner of Leet township. As told by the "Pittsburg Chronicle-Telegraph," Mr. Tenner has obtained from the County Commissioners a reduction of \$22.50 on his taxes for complying with the provisions of the law. It is rather remarkable that the second county in the State in point of population should be the first to pay a bounty for forest preservation under the new law, but such is the case. The land-owner who preserves his woods not only gets this immediate reward, but the increasing value of the trees will make a further and larger profit for him eventually.—Buffalo Commercial.

IRON PIERCED BY HAILSTONES

ONE is justified in many cases in giving only a tentative belief to many of the big hailstone tales over which some travellers delight to spread themselves, says the "St. James's Budget." A correspondent in Dholi, Behar, however, sends the indubitable proof of photographs to quite convince us and our

readers of the terrible nature of the hailstorm which occurred in his district recently. The storm passed over the greater part of the districts of Mozufferpore and Durbungah, but it appears to have concentrated itself with special fury over the indigo factory called Dholi. Here the storm was terrific, even for tropical regions, the hailstones weighing as much as five ounces. On an average they were as large, if not larger, than cricket balls. It can be easily understood that the damage done was great. Not a whole tile was to be found in the roofs, trees were uprooted, birds were killed, and general destruction wrought all around. What is more astounding, the corrugated iron roofing over many of the factory buildings was riddled as if it had been shelled by a battery. We can quite imagine, as our correspondent informs us, that no storm like it has ever occurred in the district. Hailstones have, however, had the same terrific force in Africa, a sample of corrugated iron pierced in a like manner having been recently shown in London.-Scientific American.

EARLY HISTORY OF THE FUSIBLE STRIP

HERE is an interesting little story about the fusible strip. November 1879, was a momentous time at Menlo Park, N. J. Mr. Edison had invited the New York aldermen, a number of prominent officials and well-known electricians, to be present at his laboratory to witness the trial of the incandescent light. He had invented his three-wire system and carbon-filament lamp, and was about to show the world what could be done with them. The party was invited to be present at night. On the morning of that day one of his faithful assistants remarked: "What will happen to us if somebody should lay a bar of metal across these wires? It would short-circuit the whole business, the lamps would burn out and the thing would be a fizzle." Mr. Edison pondered over the matter for a few minutes, and saw the importance of the question. It was all the more important as it was known that some of the guests who were invited were not Mr. Edison's warmest friends. After thinking the matter over for a few minutes, Mr. Edison retired, and in an hour came back and ordered the wires to be cut in several places.

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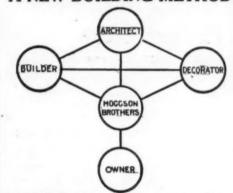
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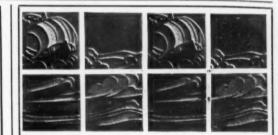
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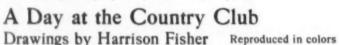


A S usual, the AUGUST number will contain a group of the best short stories of the year, and some beautiful color printing, including the cover, a frontispiece by MAXFIELD PARRISH and a series of drawings by HAR-RISON FISHER. It is in every respect a notable number.

Some Remarks on Gulls, With a Footnote on a Fish By Henry van Dyke

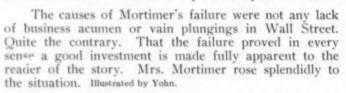
"Brave spirits of the sea and of the shore"

Few birds are more interesting in their manner of life or more suggestive of the mystery and poetry of the The author gives his observations of the gulls of Manhattan and then follows them along the coast to some of their brooding places off the coast of Maine. Incidentally, he tells of how he and Gypsy caught the big ouananiche in the "Gull's Bath-Tub." The article is illustrated with drawings by Schoonover and with some remarkable photographs by Herbert K. Job.



A charming series of story-telling pictures by this popular artist. "Wanted: An Answer;" "Byplay;"
"Fore;" "Fisherman's Luck."

Mortimer's Failure By Jesse Lynch Williams



The Fruit of the Tree By Edith Wharton

In the August installment Mrs. Wharton's novel reaches one of its tragic climaxes and prepares the reader for a situation that involves a problem of the most vital interest.







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These breaks were then connected by means of little strips of lead. The whole laboratory force was kept busy all that day casting these little strips of lead, so it will be seen in the short space of an hour's time, after the emergency has presented itself and asserted its importance, Mr. Edison had produced what is to-day one of the most valuable and vital devices in every electrical circuit. To finish the story, it may be said that when the evening came a now well-known electrician was standing with one of Mr. Edison's assistants and said to him: "I think I will play a joke on Tom, and just lay this bar of copper across the circuit." The assistant replied: "You can't hurt anything by doing that." Nevertheless, the bar was laid across. Four lamps burned out, the balance kept right on at work. A man came and repaired the fuses, and, much to the astonished electrician's surprise, everything went on as smoothly as before. - N. Y. Electrical Review.

HORTICULTURAL NOTES

A writer in "Park and Cemetery" states that the superintendent of Audubon Park, New Orleans, has adopted a plan to cure and preserve trees with hollow trunks that is "original," by filling the hollows with cement. The plan is a good one, but it is by no means "original"; it has been in practice in these parts many a year.

Our native beech makes a grand tree when set out where it can grow at will untrammeled. When of some age it takes on the drooping character of its lower branches which so distinguishes the pin oak. This, with its white bark, gives it a character that calls for its planting.

Paulownia plants are so easily raised from seeds that any other mode is not considered. But when desired it propagates readily from pieces of root, cut up and set outdoors in early spring, or in a greenhouse.

As soon as summer flowering shrubs are out of bloom, give them a fair pruning back. Many of them, especially spiræas, if so treated, flower again in autumn, some of them as freely as in their first display.

Among bush honeysuckles the one known as Lonicera Morrowi is a great favorite because of its bright red berries, which it bears in such immense quantities in the summer months. All the bush honeysuckles are propagated either by seeds, soft wood cuttings in summer or hard wood cuttings made in winter and set out in spring.

The false larch, so called, Pseudolarix Kampferi, is a beautiful tree. Though deciduous, as all larches are, it has an appearance in summer of a fir, its foliage being between those of a larch and a fir. In late autumn the foliage becomes of a yellow tinge.

Tsuga Mertensiana, the western hemlock spruce, is thought not hardy, but there are specimens of it about Philadelphia which thrive very well. Williamsoni, another one, considered synonymous with Hookeriana, is also hardy thereabout.

In former days it was the custom of European nurserymen to remove the strip of wood from a bud before budding with it, and this may still be the rule. But our own nurserymen consider its removal entirely unnecessary, and insert the bud just as it is cut from the shoot furnishing it.

Among midsummer flowering shrubs of merit place the several vitexes. Of Vitex Agnes-castus, there are three colors—white, lilac, and deep lilac. Then there is another species, incisa. All are summer blooming.

The best mulch of all for plants in summer is that of fine dust. This is secured by frequent harrowings whenever the soil is in a suitable condition for it. Mulching of leaves, short grass and the like is apt to cause roots to approach the surface, which is not desirable. Joseph Meehan in Florists' Exchange.

A WONDERFUL JAPANESE CARVING

NE of the most marvellous workmen in the world is Hananuma Masakichi, of Tokio, Japan, who has carved a figure in wood so like himself that when the two are placed side by side it is said to be almost impossible to tell which lives and breathes and which does not. By

Fiction Number

The Ghost at Point of Rocks

By Frank H. Spearman Author of "Whispering Smith"

Young Hugh Morrison was put on "a night job" at the loneliest desert station on a great Western road, with the idea that this would prove the most effective way to "give the boy a quick railroad death." The story of his experiences, including the mystery and romance surrounding the ruin of "the great brick house," is one of absorbing interest. Illustrated by W. T. Benda.

The Commandeering of the Lucy Foster By James B. Connolly

Readers of Mr. Connolly's "Out of Gloucester" will be glad to meet Captain Wesley Marrs again and to learn how he managed to get his load of herring out of Fortune Bay, and of how the agent of the Crown was made to serve the purposes of the shrewd Yankee skipper. There is a fine description of the way the "Lucy" was maneuvered to give an imitation of a vessel in distress.

With an illustration by W. J. Aylward

The Grandfathers of the Evolution By Nelson Lloyd

Few of our short-story writers have shown as much originality both in plot and treatment of character as Mr. Lloyd. This is a distinctly novel conception, full of humor and shrewd observations upon some familiar phases of American ancestor-worship. Illustrated by J. M. Flagg

"Lascar"

By Lt. Hugh Johnson

An army story of an unusual sort. The chief characters are three old veterans of L Troop of the Nth U. S. Horse, Captain Wendell Benner, his orderly, Danvers, and the latter's horse, "Lascar." The bond of comradeship that unites the three is brought out with fine touches of humor and pathos. Illustrated by N. C. Wyeth

Waldo Trench Regains His Youth By Henry B. Fuller

The background of the story is Italy. Trench, I take it, was one of the youngest things that ever happened. These few pages from the note-book of a middle-aged observer will tell how he grew older; then how, through the application of force majeure at a critical stage of his career, he became young again.

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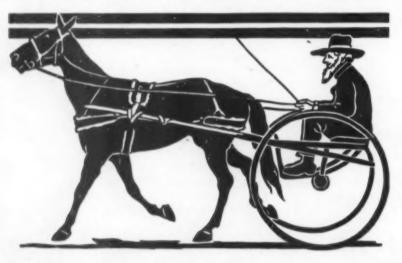
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[DEMOCRAT AND CHRONICLE, ROCHESTER, N. Y.]

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several connoisseurs in art this wooden figure has been pronounced the most perfect and human image of man ever made. Masakichi has faithfully reproduced every scar, vein and wrinkle to be seen on his own body. The figure is composed of 2,000 pieces of wood, dovetailed and jointed with such wonderful skill that no seams can be detected. Tiny holes were drilled for the reception of hairs, and the wooden figure has glass eyes and eyelashes in which no dissimilarity to Masakichi's own can be detected. The Japanese artist posed between two mirrors while modelling this figure, and for some time after his completion he posed frequently beside it, to the confusion of spectators, who were often entirely at a loss as to which was the artist. The figure stands with a little mask in one hand, and an instrument for carving in the other; the lifelike eyes are apparently gazing at the mask, and the face wears a look of intense absorption.—Youth's Companion.

ROMAN ROADS

AN authority on road construction says that the Romans made their main roads to last forever. They were composed of siliceous and calcareous materials, and were superior to the highest type of modern work. The large roads averaged 4 to 43/4 metres, the smaller ones 3 to 31/2 metres. In mountain regions the road was narrowed down to a single carriageway, 13/4 metres. The sidewalks were larger near the cities, but reduced to six-tenths of a metre in the outer districts. They were built of cut stone, at least on the border. At every twelve paces mounting-stones were placed and at every 1,000 paces milestones. Some of the best roads were paved with marble. The minor or secondary roads were not so carefully made, though of a solidity with which few modern roads can compare. A ditch was dug to the solid earth, which was stamped, rolled or staked; then on a floor of sand, 10 or 15 centimetres thick, a layer of mortar was spread. This formed the basis of the four courses which constituted the road. The first was a course of several layers of flat stones, bound by hard cement or clay. This layer was usually 30 centimetres thick, and twice that in bad lands. On this came a concrete of pebbles, stones and broken bricks,

strongly rammed with iron-sheathed ram-The ordinary thickness of this layer was 45 centimetres. In the absence of mortar, loam was used. Superimposed on this was a layer of 30 to 50 centimetres of gravel or coarse sand, carefully rolled. The top layer, or crust, was convex, and ran to a thickness of 20 to 30 centimetres or more. It was made differently, according to the materials at hand. It was either paved with cut stone or laid with pebble and granite, or metalled.-St. Louis Globe-Democrat.

A GLASS HOSPITAL WARD

AN "aseptic ward" in one of the London hospitals contains some novel features. It is 14 feet by 11 feet in area and 13 feet high, being intended for only one patient at a time. The walls and ceiling are of enamelled glass, with rounded angles, and the floor is of marble mosaic, with angles also rounded. A plate-glass window, with outside blind, forms three-fifths of the west wall; the door is of ground glass, and the framethe only wood about the ward-is of hard teak. No pipe or drain opens into the ward, and great care has been taken with the ventilating arrangements, the ward being also cut off from the rest of the hospital by a ventilated lobby; the bed, chair, patient's locker, etc., are of metal. Everything in the apartment can be washed in hot water without harm of any kind, and it is suggested that future houses will be provided with the most complete protection against the growth or entrance of any description of harmful germs .- N. Y. Tribune.

BURIED FOREST UNEARTHED

SECRETARY WATSON of the Lumbermen's Exchange reports that within the last few months an extensive forest of walnut has been unearthed in southeast Missouri. In 1811 an earthquake in that part of the State resulted in the sinking of large tracts of land. Since then there have been annual floods in that district, each year adding to the accretions. Less than two months ago two farmers, walking through a part of the district, noticed what to their eyes seemed to be the ends of walnut trees sticking out of the sunken places and tipped over. Remembering that vast amounts of cedar-wood have

(Continued on page 23)



New Departments in the

October Issue of

House 6 Garden

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author of the standard book, "The Horse in America," it is unlikely that this section will not receive proper treatment. Mr. Speed was born on a Kentucky farm, where all kinds of farm animals were bred, and has himself been a breeder of horses, cattle, dogs, and chickens ever since attaining manhood. He will not only write on the various types of these animals but will give counsel as to the purchase, keep, training and general treatment of them. His expert knowledge will be at the disposal of all readers of Rouse Garden



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Tiling Design—Pennsylvania Rubber Tiling—see corresponding leaf in this paper.

been dug up in various places, the farmers reported their observations, and the ground was explored. It was found to be rich in trees of black walnut from 28 to 36 inches in diameter. Secretary Watson states that there are two parts to a walnut tree: the center consists of solid, black wood, and the rest of the tree is a soft, sappy growth, which is of little use for commercial purposes. In these new trees, just unearthed, the sap has all rotted off, leaving only the black heart or solid portion of the tree. This is found to be a fine specimen of walnut, with an unusual depth of color.-St. Louis Globe-Democrat.

FLATS OR APARTMENTS, WHICH?

"NE thing I would like to know," said a New York citizen who has been out hunting a home, "is what constitutes a flat and what apartments. In general I know that apartments cost fifteen per cent more than flats; but I'd like to know where the difference lies. There's nothing in a name. One might suppose that 'Beverwyck' and 'Vallandigham' would indicate apartments; but there are flats renting for \$25 a month that bear those high-sounding titles; while the 'Rustler' is an apartmenthouse. Locality certainly doesn't tell for I've seen apartments advertised on Essex Street and a 'flat to rent' on a choice block in Fifth Avenue. I used to think that anything with elevators and hardwood floors were apartments, and domiciles under \$50 a month flats; but experience has shaken that notion out of me. One other question of a similar nature used to bother me—the difference between a tenement and a flat-but a friend settled that. 'A tenement,' he told me 'is a flat with front fireescapes on which the tenants hang their bedclothes.' I'd like to find an equally easy definition of an apartment."-Philadelphia Evening Telegraph.

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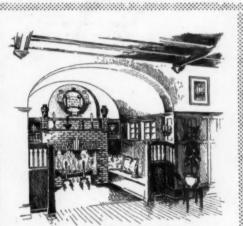
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times views with wonder the unfinished pillars, either occupying their original site in the quarry, or left after having performed one-half their journey, while he finds other shafts arranged in their intended position, and consisting each of a single piece of marble, alabaster, porphyry, jasper or granite, which is either corroded by time or retains its polish and its varied and beautiful colors, according to the situation in which it has been placed, or the durability of its substance. The mausoleum of the Emperor Hadrian-a circular building of such dimensions that it serves as the fortress of modern Romewas surrounded by forty-eight lofty and most beautiful Corinthian pillars, the shaft of each pillar being a single piece of marble.

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Thus Crossus contributed the greater part of the pillars to the temple at Ephesus. In the ruins at Labranda, now called Jackly, in Caria, tablets in front of the columns record the names of the donors.—The Architect.

AN ELIZABETHAN TOMB

A SUPERBLY rich Elizabethan tomb is left to us in Boreham Church. Essex. This was erected to the memory of Thomas Radcliffe, Earl of Sussex, Lord Chamberlain, and known as the stern opponent of Leicester. Three knights in martial costumes lie on the tomb slab, one of whom is his son and the other his grandson. Walpole incidentally states that the Earl bequeathed £1,500 to be expended on this tomb, and that his executors agreed with a Dutch sculptor, Richard Stevens, to execute his part of the work for £292 12s. 8d. The Earl and his son were first buried in the Church of St. Laurence Pountney, in the metropolis, and then removed to Boreham at the instance of the grandson .- Cornhill Magazine.

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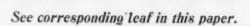
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CONCRETE FOR FOUNDATIONS

CORRESPONDENT of the "Engineering Record" has been communicating to that journal some strange notions about concrete for foundations. In his opinion, the ordinary practice of mixing the cement and sand dry, then wetting this, mixing with the washed broken stone, putting into place, and tamping until a film of water appears on the surface, is all wrong. His objections to this procedure is, as he says, that the concrete is thus made too wet, and that the tamping, by bringing the water to the top, brings up with it the cement, "and thus diminishes the concretion of binding properties so necessary to its strength." His advice is, therefore, to mix the sand and cement dry, and, without wetting them, to add to them the broken stone, previously washed, but allowed to drain and then put the mass in place without tamping.

It is difficult to believe that a person who could give such advice can ever have seen concrete-work done on an extensive scale. Every engineer and architect will agree with him as to the impropriety of "deluging" concrete with water; but his ideas of what constitutes "deluging" are most extraordinary. By actual measurement of the water used in making some thousands of yards of concrete, with one part Dyckerhoff cement to four parts clean and rather coarse sand, and six parts of broken granite of the ordinary size, it was found that, after mixing the sand and cement dry, sprinkling them with a wateringpot with twelve gallons of water to each cask of cement, turning meanwhile, and adding the six parts of broken stone, thoroughly washed with the hose, and allowed to drain, but not to dry, the resulting mixture, when well turned, was just about as wet as garden loam, in that desirable condition for agriculture in which it will not stick to the spade. This concrete, when put immediately into the trenches, in layers twelve inches thick, required half an hour of hard tamping before a film of water could be brought to the surface, and was reduced about one-sixth in volume by this tamping. The film of water brought up by the tamping was a mere appearance of wetness, which was insisted upon simply as evidence that the concrete had been compacted by the tamping to the desired extent; and it

was reabsorbed in an hour or so, carrying back whatever cement it might have originally brought up with it, so there was certainly no loss of binding property incident to the process.

This particular concrete, which was to be used for underpinning a heavy building, was purposely mixed very dry, so as to allow of the utmost possible compression by tamping. For ordinary purposes, in our opinion more water might be used without disadvantage, but it is difficult to conceive of circumstances under which concrete footings could be properly made with less water. It is hardly necessary to say that the slight film of water which adheres to the surfaces of broken granite after washing would be ridiculously inadequate for moistening the quantity of dry sand and cement necessary to fill the voids in the mass; and that concrete made in the manner proposed by the "Engineering Record's" correspondent would be a mere incoherent heap of loose cement and sand, containing lumps of a very imperfect matrix, each with a bit of granite for a nucleus.-The American Architect and Building News.

LONDON'S SOOT

HE amount of carbonaceous and other particles deposited upon glass houses is a good indication of what the London atmosphere contains, and in many cases it is only possible to procure a due admission of light to the plants by frequently washing the glass roofs. At one establishment, says the "Pharmaceutical Record," two tanks constructed to collect the rain from a house completed a few years since, were cleared out, and no less than ten barrow-loads of sooty matter were removed, all of which must have been conveyed into the tanks from the glass. One scientific man has been engaged in computing the amount of soot deposited from London air, and arrives at the following conclusions. He collected the smoke deposited on a patch of snow in Canonbury one square link (about eight inches) in extent, and obtained from it two grains of soot. As London covers 110 square miles, this would give us for the whole area 1,000 tons. As the quantity measured fell in ten days, a month's allowance would need 1,000 horses to cart it off, and these stretched in a line would extend four miles.

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INFLUENCE OF SEA-WATER ON MORTARS

E. CHANDLER, in a recent paper, describes the action of seawater on mortars, and his investigations in the harbor of La Rochelle since 1856 are of much value, as they extend over a period of forty years. Blocks of sixty centimetres in length were exposed to the open sea from 1856 to 1875, and were above the water-surface at low tide. The mortars were of hydraulic limes of different origin, of natural cements from Pouilly, Vassy, etc.; of artificial pozzuolanas mixed with lime and sand; of trass from Andernach, etc. Nearly all blocks had completely lost their cohesion after different periods. The few blocks of Portland cement experimented upon were in good condition; but blocks of neat cement (English and French) were decomposed. From these tests Viennot draws the following conclusions: (1) Neat cements are destroyed more rapidly than mortars of a certain composition; (2) mortars made of one volume of cement to one of sand, and, again; of one volume of cement to two of sand, are those which offer the greatest resistance to sea-water. They will last for twenty, thirty-six, and thirty-eight years. Thurninger commenced new tests with blocks of masonry and concrete made of lime and Speil mortar, with a length of edge of forty centimetres. In 1895 the masonry blocks disappeared, their destruction having commenced four years after their exposure, and out of thirty-two concrete blocks only twenty-six remained, but they were in advancing decomposition. In 1880 other tests were commenced on blocks submerged, of various limes. Many of these have perished. "Out of thirty-one masonry blocks laid in Portland cement mortar, and submerged between 1881 and 1892, twenty-three are still intact, while some have commenced to disintegrate." Viennot points to the following conclusions: (1) Mortars of hydraulic lime, mixed in any proportion, in most cases commence to disintegrate after one or two years' immersion in sea-water; they crumble into pulp after periods varying in length, but apparently not exceeding fifteen years. (2) Concrete resists better than masonry, owing to the greater density imparted to it by ramming. (3) Rapidsetting cements may commence to disintegrate after six or eight years, but | P. J. BERCKMANS CO.

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may last longer than thirty-eight years without crumbling. (4) The mortars offering the greatest resistance are those consisting of one part cement to one or two parts of sand. This mixture corresponds to the weight of cement required to fill the spaces between the grains of sand. These, therefore, are the least porous mortars.—Building News.

MARKET PRICES OF LONDON'S FA-MOUS PUBLIC BUILDINGS

A STRIKING article which appeared in London recently, describing the "market" value of London, has a timely suggestiveness in connection with the battle between public and private interests over Copley Square, says the "Boston Transcript." London's greatest treasures are known by name to all, and London is so far away that the valuation put upon them will not stir other emotions than precisely those which it is the purpose of the statistician to arouse. Mansion House, which cost £70,000 to build, says the writer, is now valued at fully ten times that figure.

The Royal Exchange, as a building of bricks and mortar, is worth £200,000, but land in that neighborhood has recently sold at the rate of \$10,000,000 an acre, so that £2,000,000 is probably not an excessive valuation for the Exchange. Eight bridges over the Thames cost £5,000,000 to build, but are now worth much more than that, while the tunnels underneath are worth other millions, and the embankment is worth probably double the £2,000,000 which it cost to make. "If St. Paul's were private property, you might induce the owner to sell it for £ 10,000,000, but the likelihood is very remote. Those tattered banners which you have seen so often would arouse pretty keen bidding at the sales. Westminster Abbey is difficult to value. But the sales give us some idea of what historic treasures are worth in the market, and I should not be surprised if the abbey—put up in lots
—realized £50,000,000." The British Museum, which anybody can see for nothing, could not be bought up by the millionaires in America. If it were absolutely empty it would be worth £1,500,000, and it is full of priceless treasures. The National Gallery is worth millions. "It cost, with the new Tate Gallery section, £350,000 to build, and has one picture which cost £ 14 an

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inch." The Nelson column, close by, is worth £50,000, and the statue of King George III, a little way down Pall Mall, cost £4,000. The Albert Hall and Royal Aquarium are both worth about £250,000, but the Crystal Palace cost more than three times the value of both of these. Earl's Court, the great show rivaling the palace, has millions' worth of treasures, and even when it is empty the twenty-five acres of gardens and buildings are worth £300,000. Imagine buying the Tower, the Holborn viaduct, the miles of sewers, walks and pavements; the various markets, of which four-which are for cattle-actually cost £ 10,000,000 between them; think of the hospitals and schools and churches and fancy the market value of the parks cut into city lots. The entrances alone of Hyde Park are said to have cost nearly \$1,500,000. Does the statement made by the English writer seem extravagant, that all the coined money in the world to-day would not adequately represent the value of what the poor can see and use in London? - Philadelphia Press.

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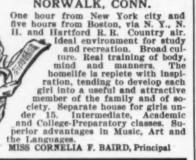
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BULLET HOLES IN CHURCH DOORS

HE removal of thick incrustations of dirt and varnish from the old woodwork above the outer central doors of the northern porch of Westminster Abbey, prior to polishing up for Easter, shows that the wood is thickly penetrated with a great quantity of small shot, and bears bullet marks. The old doors beneath were removed about three years ago to admit of a freer method of egress and they were riddled in a similar manner. The Abbey workmen engaged in cleaning the woodwork say it is four or five hundred years old. It is very thick oak and is studded with large iron boltheaded nails, and it and the old doors have filled a space about fifteen feet in height by seven feet in width. The oaken doors of the Church of St. Clement Danes in the Strand have been riddled in much the same manner. Surmise can only be ventured upon to account for these strange marks on the doors of ecclesiastical edifices, many of which were sanctuaries. From the earliest Saxon times the sanctuary of Westminster-or, as Stowe calls it, "The Abbey Church Sanctuary," which he specified as "the church, churchyard, close, etc." — formed a place of refuge for offenders of all kinds, until it was suppressed, with all other sanctuaries, in the reign of James I. "But the right of asylum," says Dean Stanley, "rendered the whole precinct a vast 'Cave of Adullam' for all the distressed and discontented of the metropolis who desired, according to the phrase of the time, 'to take Westminster.' Sometimes, if they were of higher rank,

they established their quarters in the great northern porch of the Abbey, with tents pitched and guards watching round, for days and nights together. Sometimes they darted away from their captors to secure the momentary protection of the consecrated ground." Thus some of the nimble-footed ones occasionally lost their lives, and perhaps now and then a little lead that was meant for them went astray. Long after the suppression the neighborhood of the Abbey was a hotbed of iniquity and vice, and it may be that during this period, if not before it, the woodwork of the northern porch suffered from over-free firing.-London News.

PENALTY FOR DESTROYING AZTEC RUINS

WE are rejoiced to learn that a tourist has been arrested in Arizona, where he was caught in the act of demolishing an ancient Aztec cave-dwelling, and, after a severe reprimand from the Court, and the summary confiscation of the relics that he had been collecting, dismissed, with a warning that he, or any other person meddling with the ancient ruins so numerous in the State, will hereafter be severely dealt with. A statute, providing heavy penalties for mischief of this sort, has just been passed in Arizona, and, although in the present case, which was the first to be brought into the courts under the new law, the judge was willing to show clemency, future offenders need expect no mercy.-American Architect.

A RAPHAEL STORY

RAPHAEL, the great Italian painter, whose celebrated Biblical pictures are worth fabulous sums of money, was not a rich man when young, and encountered some of the vicissitudes of life like many another genius, says "Harper's Round Table." Once when traveling he put up at an inn and remained there, unable to get away through lack of funds to settle his bill. The landlord grew suspicious that such was the case, and his requests for a settlement grew more and more pressing. Finally, young Raphael, in desperation, resorted to the following device: He carefully painted upon a table-top in his room a number of gold coins, and, placing the table in a certain light that gave a startling effect, he packed his

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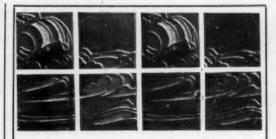
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FOREST FIRES CAUSED BY LIGHTNING

A CCORDING to Dr. Bell, in "The Scottish Geographical Magazine,' the forest fires of Canada are generally caused by lightning. In the great forest between Alaska and the Straits of Bellisle the portions recently burned are easily recognized by the tenderer green of their foliage from the parts which have been longer spared. The fire rushes along with the speed of a galloping horse. The branches and dead leaves on the ground burn like tinder, and the flames rise to nearly 200 feet. Resinous pine woods burn fastest. One of them extended 160 miles in ten hours. The traces of a fire remain for nearly a century. Birds and beasts are stifled or burned. Beavers and muskrats, which are amphibious, have a chance of saving their lives. After the fire a few trunks of the largest trees are left. Next spring roots begin to sprout and seeds to grow. In fifteen or twenty years the soil is covered with poplars, willows, etc., which shelter young firs and other trees. In fifty years the conifers are uppermost, and in one hundred the others are dying out beneath the pine wood. A third of the forest region of Alaska has trees of fifty years old, another third, trees of fifty to one hundred years, and the rest, trees over one hundred years old. The fire seems to suit the Banksian pine, as it opens the cones and sets free the grains. Without fires this species would hardly reproduce itself. Such fires took place even in the Pleistocene epoch of geology.

European bird cherry, Cerasus padus, forms a large, handsome tree, beautiful when in flower, and the delight of robins when in fruit. Those who wish to encourage birds, should plant a tree of this cherry.-Florists' Exchange.