Cable Cord—40% Rubber
Immune to Tire Fever

B E H O L D how cord and rubber are fused into the flexible, powerful cable-cord which forms the exclusive patent-protected body of a Silvertown tire. Note the rubber core, and how each cord tendon lies completely encased in a cushion of rubber.

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That fusion of rubber and cord, cool no matter how fast the tire whirls, when cross-wrapped in the Silvertown's two-ply body, is the secret of Silvertown's IMMUNITY from TIRE-FEVER—the internal heat rubbed up between the plies of many-ply tires—the great destroyer of tires.

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Moreover they give a style, a smoother riding comfort and gasoline saving economy you can not afford to deny yourself.

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Write us, describing as briefly as possible, your wishes.

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M 2 Wanted, a small, country place in Connecticut, Massachusetts or Northern New York. Must have fine location, five to twenty acres, fruit bearing trees. 3

M 3 PLOT offered for sale at Brightwaters, Bay shore in the Bay Section, less than 43 miles from New York, within (about one hour) easy commuting distance from Penn. station—express trains. Lot measures 50x140 ft. Ownership covers privileges to fishing, hunting, tennis, boating, yacht, hotel, railroad, gate, and stage to station. All improvements are accessible, even gas. Price is $1,000 for a cash sale.

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Is of the Colonial Georgian type of architecture, finished in old ivory and mahogany. It contains eight master's bedrooms, five master's bathrooms, three bedrooms, ten maid's rooms, two maid's hallways, a large living room, library, reception hall, dining room, den, cloak room and service quarters.

The Special Features

Are a refrigerating plant, service elevator, eleven fireplaces and a children's playhouse on the grounds.

If not sold immediately, the property can be rented furnished for the season or for entire year. For terms and appointment to inspect the premises, communicate with

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Greenwich, Conn., Newly built Colonial House, on 2 acres, in exclusive Rock Ridge section; 5 master's rooms, 4 baths; 2 servants' rooms and bath; garage for 2 cars, man's room above, servants' sleeping porch. Convenient to station. For rent, furnished; June 15th to Sept. 15th, $6,000. (250.)

Greenwich, Conn., In exclusive Belle Haven, with view of Sound; 3 acres, fine trees and gardens. House contains 6 master's rooms, 5 baths, 5 maid's rooms, 1 bath. Accommodations for horses and carriages; for rent, furnished, for the season, $7,000. This house has never been offered for rent before. (275.)

Greenwich, Conn., For rent, furnished, 3 acres, 8 rooms, 4 baths, 4 maid's rooms, 1 bath; garden and other buildings; excellent rental; beautiful open country; $5,000 for season; will sell. (330.)

Greenwich, Conn., Sound and country house, 4 acres, high ground, with trees, shrubbery and gardens; new railroad, house, 5 rooms, 4 baths, 4 maid's rooms and bath; furnished in exacting taste; garage with living apartments; for rent, furnished, for the season, $10,000. (220.)

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GREENWICH, CONN.

For Sale. Modern stone and stucco residence of 14 rooms, delightfully located in the select section of Scarsdale. Situated on 3 acres with 15 acres adjoining, also available, it offers much to the purchaser. Fine location borders the property. One mile from station. Beautiful trees and grounds.

Very reasonable.

RYE—PORTCHESTER, N. Y.

For Sale. Modern frame Colonial residence, 15 rooms, garage for 2 cars. Fine location close to Boston Post Road, situated on 3 acres, nicely laid out gardens, fruit trees and shrubs. View of Sound. Arrangement of master's rooms in suites. A special price makes this an attractive offering.

For Sale. Desirable residence, 14 rooms, situated on high knoll ½ mile from Portchester station, along ¾ acres, with neat gardens, stables, garage, etc. This property offers a very attractive location and is ready to purchase. It requires only $10,000 Cash balance on mortgage. Very reasonable.

For Sale. Modern Colonial residence of very new type and novel features. 18 rooms with 3-car garage under-entrance. Closet is gold course. All stone, all first-class, offers many advantages in arrangement. The four master's rooms are located on the second floor and three baths on second floor with individual porches, etc., are most artistically planned. Can be purchased at an attractive figure.

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For Sale. Modern stone residence, 20 rooms, situated on 8 acres of very choice land in the Rockridge section. Fine garage. Apple orchard, fruit trees. Very extensive modern gardens. High ground with good view of Sound looking over neighboring estates. Many exclusive and attractive features. A desirable offering at a low value!

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Very reasonable.

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Poultry Run Fences
These Modern Fences are used and
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foremost poultry raisers, who recog­
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ordinary form of fence. They are
practically indestructible, may be
made rat and vermin-proof, and make
it easier to keep the birds in a healthy
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MOST American automobiles are of a Siamese-twin sameness in appearance! They pass down the street like a procession of boarding-school misses in their regulation garb. Imagine the introduction into this procession of a chic Parisienne of ravishing smartness and you have an impression of the stir the ROAMER creates in the traffic stream of any metropolis.

The ROAMER is assuredly a car for the individualist, for the man or woman who dislikes to know there are 50,000 replicas of his or her motor car (49,549 of them painted black) in circulation.

The ROAMER is quite as distinguished in performance as it is in appearance. Despite its grace of line and beauty of contour, it has a mechanical sturdiness which no demand can overtask. In any brush of speed its radiator will forge its way irresistibly to the front; or you can loaf along in "high" with subtle smoothness.

The ROAMER 6-45 is priced at $1850; the ROAMER 6-90 at $2050; prices of other models upon request. An interesting book containing illustrations and specifications will be sent you upon request.

BARLEY MOTOR CAR COMPANY
KALAMAZOO, MICH.
THE SMALL HOUSE NUMBER

The Colonial house, always a popular type, will be shown in varied forms in the July issue

The Old-Fashioned Garden, a universally popular type, and Grace Tabor's story of "The Best Blue Flowers," are both up to the high standard set by HOUSE & GARDEN gardening contributors—both make you want to make a garden and both tell you how to make it.

Copyright, 1917, by Condé Nast & Co., Inc.
Garden paths are one thing, garden steps another. Paths wind and wind. They flow whither they will, like capricious brooks, between flowery banks, dart under trellises that span the stream for honeysuckle and rose, and lead out into the infinity of some hay-scented meadow. But garden steps are always steps. Direct, resolute, persistent, they go toward their destination, leading from height to height like stairs into the sky. And this is true whether they are on a formal estate or in the tangle of an old-fashioned garden such as this, at the residence of Richard Arnold Fisher, Esq., Newburyport, Mass.
THE DESTINIES OF THE NATIONS OF THE WORLD MAY BE HANGING BY THE MICROBIC TRAILS OF Phyt BREAKthura Infestans! These two formidable words, translated the language of the Irish potato, mean blight, the disease which last year upset calculations of the German Government destroying a large percentage of the potato crop. To say that the potato will decide war may be exaggerating, but there is doubt that food, rather than gunpowder, will ultimately be the determining factor in conferring the laurels of victory. Each modern method of transportation, communication, national organization becomes such an intricate and fascinating thing that every last individual is reached by it. And in every nation the war at the front and the army behind front, the workers at home, must be supplied with three meals a day. Abroad every government that has entered the war, with the possible exception of Germany, has been slow to recognize the importance of the food supply. Today this question is looming up as the most gigantic of those which will demand immediate attention. It is for us a problem not only of feeding ourselves but those with whom we are making common cause. Recognition of the seriousness of the problem has brought forth many efforts from organizations and individuals. At the Conference for Agricultural Preparedness, held at Washington early in April by the National Agricultural Society, there were most as many plans as speakers. They ranged all the way from the organization of local societies to utilize every back yard for vegetable planting plans for wholesale government operation by putting the farmers on the government pay-roll, either directly or indirectly by the guarantee of a minimum price for crops.

AGRICULTURAL PROGRESS

My purpose in this article, however, is not to rehearse the various plans which have been proposed, but rather to sketch the lines of agricultural progress which have been followed during the past few years, and to suggest how still further developments are possible.

In much of the work which has been done there is great potential value, but the information has not yet been put to use. Many of the discoveries are not generally known. It has taken a time of crisis to put us on our mettle as an agricultural nation. Yet it is only fair to say that it is not the farmer's fault that he has been slow to adopt the new methods which the government has placed at his disposal. Time after time the farmer has grown big crops, only to receive for them prices so low as to leave him without profit—often, indeed, with actual loss. We have given the farmers as a producing class every incentive to grow small crops rather than big—and have paid them much more for the lesser than for the greater service.

The problem of making two blades of grass grow where one grew before is a very complicated one, and little will have been gained if in the solution it costs as much to produce the second blade as it did to produce the first.

The average person thinks of the problem of increasing crop yields as one to be solved by a long-nosed chemist with a new fertilizer or by some wizard of horticulture who will outwit Nature and trick her into growing a cabbage plant with two heads or a stalk of corn with six ears.

As a matter of fact, however, the business of insuring higher crop production is a slow and painstaking process. All the factors involved must be considered and developed together, for while concentration on one aspect alone may result in discoveries very interesting from a scientific point of view, it will fall short of bringing about an increase for the demands occasioned by war-time.

BIOLOGY AND INCREASED PRODUCTION

Probably the most important of the various lines of intensive effort—certainly the most interesting from the layman's point of view—is that of improvement by breeding and selection. The biologist has played and must continue to play a leading role in making this country economically independent. His position is an important one, for in spite of our gigantic industrial corporations and our "war brides," nearly 70% of our total national wealth is in agriculture—land, buildings and live stock.

Let us look at our king crop—corn. A glance at the accompanying photograph will show what the biologist has done with this crop. (Incidentally the biologist usually did not call himself by that name. He worked in a pair of overalls out in a field, and was known by all his neighbors as a good farmer who was something of a crank on selecting seed!) In that photograph the biggest ears of yellow Dent corn are representative of two varieties largely grown in this country. The corn crop is a serious business with us. It occupies over 29% of the land given up to crop production. In 1915 we grew over 3,050,000,000 bushels,
**Corn clubs for farm boys started by the government have stimulated good cultivation and produced larger crops because the men compete with the boys. Sherman Holt (above) raised 197.33 bushels of corn on an acre in Arkansas where the average crop is only 20 bushels.**

Good crops depend fundamentally on good seed. One of the best things the government has accomplished is raising the standard of corn. Compare American varieties with South Americans.

The one-man tractor which has recently come on the market will help solve plowing and cultivation on the small farm. The farmer merely guides the machine down the furrow.

Bad roads have been a serious deterrent to farm success and the marketing of crops. The two views, to right and below, show a stretch of Tennessee road before and after improvements. It is in the South, incidentally, that the greatest strides have been made along these lines.
about 30 bushels per capita. These figures need cause us no congratulation when we consider that the average production of the ten year period 1906-1915 was only a little over 20½ bushels acre. The main reason why the yield was no larger was that American farmer realized from his years of experience—though he may have expressed the idea in terms of economics—that it would not pay to go to any additional expense increasing the production.

An instructive story is that of one of the adult farmers of the state was about bushels per acre! This work has not stopped with the boys. In Culpeper County, Virginia, where the average crop of corn was 21 bushels, a noncommission of the county agent during the first four years' work covered 1,160 acres, and secured an average yield of 7 bushels per acre. Of the forty-eight boys enrolled for corn club work for 1914, thirty-seven reported, the average p being 75.7 bushels per acre. A man who has watched this work from the beginning says, "It has done the men and boys, because while he was not paying any attention to the boys' corn club they are trying, as hard as they know how, to beat the crop the boys left. Today in traveling over the country the see everywhere well selected ears of corn hanging in cribs, barns, porches and chens—a rare sight five years ago."

**IMPROVING CROP VARIETIES**

Selection and cross breeding have produced wonderful results in improving rains of wheat and many other grains and grasses as well as vegetables. Work along this line is by no means confined to making two blades grow where one grew before. The work of the plant breeder is often times to get one blade where none grew before. Most interesting work has been done with the drought resisting plants, for example. Important results have been achieved with soy beans, milo maize, sorghum and a number of other crops. Equally important has been the introduction by the Department at Washington of a number of plants not formerly in general cultivation, but particularly suited to dry climates or other unusual conditions.

Increasing production through improved strains or varieties has not been limited to plant life. Just as valuable work has been done in the breeding of live stock and poultry. "Scrub" cattle, hogs and chickens are still in the majority in most agricultural sections; but their time has come and slowly but surely they are being replaced by thorough lines of stock well adapted to their locality. Especially in the South great progress has been made during recent years. Few people realize the tremendous importance of this kind of work, until they make some such comparison as, for example, that of the average cow with her 3,100 pounds of milk and the belle of California, Tillie Alcartra, who gave in her record year 30,000 pounds. Of course, that is a record we cannot hope to approach under ordinary conditions, but there is no doubt that the production per cow could at least be doubled within a few years, if a campaign for that purpose were to be inaugurated with the thoroughness with which the Government is taking hold of the munitions supply for Army and Navy. Then there is the steel-springs legged, rubber-breasted hen that lays 60 eggs a year, compared to the 312 laid by Lady Eglington in making her year's record. If our hens were divided according to measurements known to indicate laying capacity, those that did not qualify being used for the table, the production per hen could easily be doubled. Feed and care alone are not sufficient for large egg fields.

**Good Methods as Important as Good Varieties**

The wonderful results mentioned in the case of corn crops were due largely to the introduction of better varieties than were formerly used in each case. Along with the better varieties went better methods of culture. We are in this country like to preen ourselves upon being a great agricultural nation. We are—but let us look for a minute at the following table which is of particular interest at this present time when the country with which we are at war supplies the "odious comparison."

Average Increase in Crop Yields in Twenty Years.

<table>
<thead>
<tr>
<th>United States</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>2 bu.</td>
</tr>
<tr>
<td>Oats</td>
<td>4 bu.</td>
</tr>
<tr>
<td>Rye</td>
<td>4 bu.</td>
</tr>
<tr>
<td>Barley</td>
<td>2 bu.</td>
</tr>
<tr>
<td>Potatoes</td>
<td>23 bu.</td>
</tr>
<tr>
<td>Average</td>
<td>20 bu.</td>
</tr>
</tbody>
</table>

Not a pleasant pill for our national pride to swallow! However, there are extenuating circumstances. We have been farming extensively while Germany has been farming intensively.

While each person engaged in agriculture in Germany has had to take care of 4.1

(Continued on page 78)
THERE'S NOTHING NEW UNDER THE SUN IN A GARDEN

Photographs by J. W. Gilles and M. H. Northend

The trellised garden (left) has the flavor of prim-potted gardens of yesterday. Charles A. Platt, architect.

A New England garden made last year but reminiscent of three generations ago. Kilham & Hopkins, architects.

Another year, and the niche trellised garden wall below will look a hundred years old. James L. Greenleaf, architect.
Box bordered and rose arched—these were the gardens of yesterday. And the newest gardens are just a reflection of the past. Charles A. Platt, architect

Imagine yourself in an English garden close. You really are in the garden of Mrs. Harry Payne Whitney at Old Westbury, L. I. Delano & Aldrich were the architects.

Below is still a third view of the new old-fashioned garden. This would have been considered ideal a hundred years or so ago—and still is...
ROSES OF YELLOW AND ROSES OF GOLD

Find their Garden Places where Stronger Colors Would Not Serve

GEORGIA TORREY DRENNAN

OFFHAND, what color consciously suggests itself to you when someone mentions roses? Pink or red, isn't it—"red as a rose," you know. At any rate, I don’t believe it is yellow, unless some particular association has fixed that color in your mind. Yet roses do come in yellow, and though their presence in the garden is relatively uncommon, there are settings in which their various shades are far preferable to the stronger pinks and reds, or even to the pure whites and flesh tints.

There are yellow roses and yellow roses, to be sure. They are fewer in number than those of any other single color, yet more numerous than any one garden requires.

The Maman Cochet group is strikingly hardy. The five colors—white, pink, red of two shades, and yellow—are alike in strength, vigor and perfect beauty. They are persistent bloomers from spring till the last cold autumn days; and they merit their reputation of being the most distinguished group of roses of recent years in Europe and America. Perhaps the most distinct and beautiful of the whole group is Yellow Maman Cochet.

THE COCHET AND OTHER YELLOWS

The positive statement has been made that of the hundreds of roses available in this country the Cochets are the best. This does not quite coincide with my own opinion which is based upon the roses as they bloom in my own and my friends' gardens. Not that I dispute one word of praise for the Cochets. They deserve all that can be said in their favor—and even more than has yet been said in praise of the clear, deep, golden Yellow Maman Cochet—but I would not accord them undivided meed of praise in all respects.

There are other constant, hardy, free and beautiful yellow roses, closely in competition with the Cochets. Everybody knows Kaiserin Augusta Victoria as the hardest of all the hybrid teas, and also as one of the most perfectly beautiful creamy white roses in existence. But perhaps everybody is not yet well acquainted with the more recent Yellow Kaiserin Augusta Victoria, or Perle von Godesberg. It is a superb yellow rose of clear canary shading to saffron. It has all the good points of Kaiserin Augusta Victoria and in my estimation is almost as fine as the Yellow Cochet. The differences of shades of yellow in the two roses make pleasing variety, on the bush as well as in the vase. The Cochet roses are hardly everywhere if given some protection. The same may safely be said of the Kaiserin Augusta Victoria and Perle von Godesberg. They are so hardy, vigorous, and free in habit, that I wonder why both groups are not recognized as hybrid teas.

Another good yellow is Etoile de Lyon, a very beautiful tea rose. It is much more hardy than the equally beautiful variety known as Perle de Jardins.

The teas and hybrid teas now number over forty handsome roses in all shades of yellow, except deep orange. William Allen Richardson, the climbing tea, is the only deep orange except the Persian Yellow rose. It is several shades deeper than Maréchal Niel, which is a clear cloth-of-gold yellow, and is a free flowering and beautiful rose at all seasons, though excelling itself in autumn. The orange yellow, by the law of the radiation of heat, intensifies and deepens as summer wanes and the nights grow frosty and cold; the roses, roses, and garlanded by hundreds and hundreds, are more and more striking and effective until the killing cold weather comes and ends their season.

THE HARDEST SORTS

The very hardest yellow roses, such as a free and florentes in far northern sections, are spring or early summer bloomers. The yellow ramblers, Aglaia, is a deep yellow, of free and hardy growth and for six weeks a most wonderful bloomer. One thing in favor of this and other once-blooming rosés is that for their brief season of flowering they are much more profuse than the constant bloomers, for their resources are drawn upon for all the roses of the year at one and the same time. Aglaia is as profuse as the cimarron rambler and in all essentials the same rose except in color.

It would hardly be just to the rose family and certainly not fair treatment to those interested in reports from the fairy land of sun-gold roses, to omit the almost forgotten Austrian, the Persian Yellow and Harrison's Yellow. These are regarded as fine flowers, very hardy and long-lived; but so many new and attractive roses of improved strain and beauty are engaging attention that the Austrian and Persian are not generally known and grown.

Of the trio, Harrison's Yellow is the most common. It is a light primrose yellow and single flowered. It bears a resemblance to the sweet briars, but the russet glands on the under side of the leaves do not secret the aromatic oil that imparts the fragrance of the latter.

Harrison's Yellow has no fragrance of foliage and not much perfume of flower. Its single blossoms are as light and airy as butterflies—I remember their blooming early in the spring with daffodils and jonquils. All about were peach trees in their own shade of pink; sweet scented plum trees in snowy white, and dogwood, red bud and maple making the wild woods gay. Yes, this rose was one of the components of all gardens of the Old South.

Persian Yellow was long considered the deepest yellow rose in cultivation. It had more substance than Harrison’s, and is of deep chrome yellow. The two roses come and go together, blooming for a period of about four weeks.
The Austrian Yellow stands unique as regards color. The peculiar coppery red of the inside of the single cup-shaped rose, combined with the pure id of the outside, has no duplicate among roses or any other flower. Like the others of this trio, it is a wreath rose, blooming at short intervals along the trailing branches. Fountain-like, arching its branches, dipping its tips to the green earth on a bright shiny day, the striking brilliancy of this unique briar of Indian red and gold will catch and hold the attention of even the most casual observer.

None of these roses propagates well from cuttings. The Persian and Austrian are budded on Manetti or other hardy stock, but Harrison's Yellow reproduces itself by scions. Although single flowered, with pollen laden stigmas, it is a very seed bearer; yet it has the distinction of being one of the seed parents of Lord Penzance, the only yellow rose among the Lord Penzance hybrid sweet briars. It is the result of the cross between Harrison's Yellow and sweet briar Simplex. Its primrose yellow is inherited from one parent and the sweet scented foliage from the others.

Salmon is as much pink as yellow. Gloire de Dijon is distinctly salmon, beautiful in pink and yellow with blendings of intermediate tints; nevertheless the full blown roses are frequently pure golden yellow. It is the most conspicuous example in the world of one rose very much more Hardy than any other of the numerous roses of its class. Just what is the reason for this we cannot be sure, but the fact remains. The color of a rose makes no difference in its mode of culture. A rose is a rose no matter what its kind or where it grows. The class to which the majority of yellow roses belongs is not entirely hardy north of Baltimore or Washington. Some protection covered, roses are more injured than benefited by exposure to the inviting sunny weather of early spring.

Winter is winter, even in the orange belt. There are climatic differences, north and south, to which roses must be adapted. Cold in the north is settled and consistent; in the south, fickle and capricious. The warm blanket of snow covers the northern gardens safely through the winter. In southern gardens, growth is induced by warm waves all winter long, and the succeeding cold waves make the plants suffer proportionately and sometimes seriously.
LONG before this has the alarm been sounded. The cry has gone down the land to all who labor in the fields, "Raise your bit!"

America must feed herself and her allies. The President has warned us that we cannot be found wanting in "the things without which mere fighting would be fruitless."
The trenches of our war, then, are the furrows of the field. The man behind the plow is fighting for this great cause of liberty as much to-day as the man behind the gun.
The American farmer will ultimately "see it through," for he is helping to make this world a safe place for Democracy by feeding the forces that are fighting for Democracy.
The lines of defense are Farmers, Funds, Factories, Food.

THREE springs had come, three summers; and thrice we gathered in the harvest.
This spring, we thought, would be like all the rest—the warm and gentle rains, the sun that coax to life the tiny seed, the wakened bud, the green shoots above the furrow, the sturdy crop. Another summer would creep past, and then another autumn when, happily, we could put the ripe harvest to the sickle. Suddenly we turned and faced the hideous fact. For three years we had hid from it, denied it in our hearts, labored to put it out of mind.
Spring came, and with spring the War—their war, our war. We are in it now, in it that the world may henceforth be a safe place for men to live and labor. No longer can we flee from its realities, no longer deny our responsibility. We have placed our hands upon the plow. And with that plow shall we win.

WE must raise our bit, or we and our war-worn allies will starve. This is a solemn fact. The surplus from last year's crops—which was far below normal—has been drained for the nations overseas. Some of it has been lost in torpedoes, some of it destroyed by incendiy fires. We must make up not alone what will suffice for our consumption now, but enough to see us all through until the harvest of 1918. That means 100,000,000 mouths to feed here, and many millions more over there. We must raise our bit, or hosts of men will have died in vain. As the President has phrased it, "Without abundant food, alike for the armies and the peoples now at war, the whole great enterprise upon which we have embarked will break down and fail. The world's food reserves are low. Not only during the present emergency, but for some time after peace shall have come, both our own people and a large proportion of the people of Europe must rely upon the harvests in America."
Our hands, weaponed not to smite, must now labor to support hands that toil in munition factory and battle trench. We were too proud to fight must now in humility expiate our iniquities and vain boast.
Here is America's greatest chance for service. Here lies the proof for the redemption of her national soul. Never before did we offer to every man, woman and child in a nation such an opportunity to do his bit for the attainment of a world ideal.
The war will mean other sacrifices. Certainly that in full measure—the sacrifice of men, the crushed hopes of women, the lonely coming years. It will cut ruthlessly across promising careers and laid schemes. It will impoverish the rich and beggar the poor. Perhaps in many it may mean a lean harder and an empty purse. But the things must be. If ever we expect the Angel of Wrath to pass over us, we must sprinkle our lintels with our own blood.

THE coming months will decide our fate and the fate of our galant allies. June, July, and August are the critical months in bringing things. Pests must be hunted down and exterminated. Dust mulch must be carefully prepared around the roots to make moisture below yield its maximum service. If drought comes, water will have to be carried to the thirsty plan. This means real work. It means working when we don't want to, when the interest has flagged and courage failed.
The discipline is self-imposed. That is the whole more reason why it should be unalteringly observed. Many of us have started our gardens with a high resolve to raise as much as we could for our own tables so that the burden on the market might be relieved. That sort of resolve rooses a spirit that most every gardener every spring, is nothing new. But what will be new to many of us will be to sustain that effort and see through that resolve to a satisfactory conclusion.
It is necessary for the amateur and professional gardeners in America to keep up their interest in their gardens during the next three months. The afternoon's tennis or golf will have to be put off. Your first duty to your country will be to see that your plan is in a healthy condition and that the vegetables are kept through the hot months.

I T is more necessary to see the greens things growing in these months than to see the flag waving. The flag will stay where it has always been—on high—so long as you earnestly persist in raising your bit. If you become a slacker at these times, it will fall dragging into the dust just as your plants will wilt and fall into the dust. The flag will never have stripes more glorious than the stripes of your persistence and sacrifice this summer. There will never be field of honor more ennobling than the field you raise this year to a bounteous harvest.
A GLIMPSE AT "WELD"

Unquestionably, one of the finest gardens in America is "Weld," the estate of Lorz Anderson, Esq., at Brookline, Massachusetts—no petty distinction when one considers the high standard set by American gardens today. The view shown here of the belvedere by the lake is one of its most picturesque glimpses.
SWORD-GUARDS OF FEUDAL JAPAN

Tsuba of Samurai Glory That Find Their Way from Nippon to the Collector’s Shelves—Their History and Adornments

GARDNER TEALL

Small objects beautiful to contemplate, exquisite in workmanship, intrinsically valuable and at the same time rich in historical associations have attracted men of all ages. Little wonder it is that the collector of the objets d’art of the Japanese craftsmen finds in them an ever refreshing delight.

The tsuba, or sword-guards of Japan, are famed for their workmanship, beauty of design and historic interest, while their rarity is not such as to discourage the collector. A few years ago, indeed, these remarkable examples of the skill of the old-time Japanese metal-workers could have been picked up in the Japanese shops in America and Europe for a song.

Though the price has advanced somewhat precipitously, fine specimens of sword-guards may still be had at far from prohibitive prices, when one considers that almost every tsuba can be counted a supreme example of the metal-worker’s art. Each is distinctly an original and unique object, into whose fashioning has gone the best effort of those tirelessly patient and conscientious craftsmen of the Flowery Kingdom.

The Sword Laid Aside

Feudal Japan has disappeared, and with it the need of the old armourers’ art. Fifty-eight years ago a noted Japanese official sought in vain through Yedo—now Tokio—for a countryman who might prove to be conversant with the English language, a fact that gives one a suggestion of the rapidity with which the old order of things has been thrown off and the new taken on. It was just forty years ago that an imperial Japanese edict abolished the wearing of swords. Chamberlain says that “the people obeyed the edict without a blow being struck, and the curios shops at once displayed heaps of swords which, a few months before, the owners would less willingly have parted with than with life itself.”

It is clear that, as a result of this edict, a vast number of swords were brought into the market. Naturally enough, as collectors had not then discovered the tsuba, countless sword-guards were thrown into the melting-pot. Later when European, American and Japanese connoisseurs came to rescue the tsuba from oblivion, the native craftsmen, still possessors of a reclusive heritage of skill, fell to making sword-guards for the market. Yet even these late 19th—and one must suspect 20th—Century tsuba are often beautiful, ingenious, and interesting enough to be desired acquisitions on their own account.

Arms and Adornment

Marcus Huish, in his book “Japan and Its Art,” said: “It can readily be imagined that in a country where internal wars were constant, where private quarrels grew into family feuds, where the vendetta was unhindered by law and applauded by society, where the slightest breach of etiquette could only be repaired by the death of one of the parties and where a stain of any sort upon character necessitated suicide by a sword thrust, attention was very early directed towards obtaining perfection in the only article of defense or offense which a Japanese carried. Nor would it long remain unnoticed in a community where artistic instincts were universal, and jewelry and other ornaments were worn. . . . Personal ornaments illustrate better than anything else the individuality of their wearer, and collectively the taste of the nation. Especially is this the case where the article in question is worn as a privilege, is held in respect, handed down as an heirloom and is the subject of the most carefully prescribed etiquette. Not only the manufacture but the adornment of the sword was for centuries a profession reserved to artists of the highest attainments. The ornament lavished upon it illustrated religious and civil life.
"Day's at the morn; morning's at seven," and the first rays filter through white scrim. There's a border design of hemstitching in blue or rose, as you choose, and the hem may be had in blue or rose. 38" long. $1.25 a pair.

Curtain at the top is ivory colored striped net, the net being heavier in stripes. Edged with narrow lace. 38" long. $2.95. In center, white voile with narrow lace edge. 38" long. $1.25. Bottom dotted swiss with hemstitched hem, narrow lace edging. 72" long. $2.95.

A net to catch the sunshine in! Cream square mesh net dotted, the curtain being hemmed and edged with narrow Cluny lace. 2½ yards long. $2.75.

For cottage casement windows comes a very fine, imported dotted swiss curtain with ruffled border finished in a fine scallop. 2½ yards long. $4.50 a pair.

Muslin of good quality is always interesting for underdrapes in some rooms. The border is stitched with five fine tucks forming a square at the corners. Edges finished with hemstitching. 2½ yards long. 32" wide. $1.10.

Double sash under-curtains of net give a pleasing effect at living-room windows. The over-drapes in the room shown below are mauve and green linen, the furniture mauve enameled striped in green and the rug is beige. Leeds Inc. were the decorators of the room.
EARLY ITALIAN WALL FURNITURE

The Cassone, the Credenza and the Bed

Photographs by
Courtesy of Nicholas Martin

UNDER the general term of "wall furniture" are to be understood all those pieces which, from the nature of their design and structure, are intended to stand against the wall—in other words, everything not comprehended under the head of seating furniture and tables. To be strictly accurate, not a few of the tables, ceremonial benches raised on a dais, and high-backed chairs were treated as wall furniture; but, as they have already been discussed, we may address ourselves directly to the cabinet work on which artisans and artists of the period often expended their best efforts.

THE CASSONE

One of the most characteristic articles of the Italian wall furniture of the 16th and 17th Centuries was the cassone or chest. It was not only an important item in the equipment of every room, but in one or another of its various forms it embodied all the decorative processes and types of decoration employed for the enrichment of furniture in that golden age of Italian mobiliar art. The cassone was an object of utility from the earliest times, but from the middle or latter part of the 16th Century on it assumed a highly significant position as a decorative adjunct as well. In the exuberance of Renaissance invention it displayed the peculiarities of contour and all the wealth of decorative detail characteristic of the period; early in the 17th Century, in a stricter manner, it showed the restraint of form and establishment we see in other contemporary pieces of cabinet work.

In considering not only the cassone, but also other wall furniture of the 16th and 17th Centuries it is necessary to keep constantly in mind two things that were pointed out in the preceding paper. The two things are, first, the character of the architectural background and the relation of furniture to it; second, the scantiness of equipment as compared with the usage later periods. In the first place the furniture had sufficient individuality and intrinsic interest, both in form and color, to give the requisite contrast with its background, no matter whether that background was elaborate or austere. In the second place, the furniture was designed and made in the full realization that each piece would display its excellence without crowding. While it manifested sundry minor variations, the cassone occurred for the most part in one or the other of three general types, all unmistakably of the same family.

THREE GENERAL TYPES

1. There was the cassone of sarcophagus contour with projecting acanthus consoles and shaped top, such as the gorgeously ornate Florentine example of about 1475, shown in Figure 10, or with sharp sides and flat top, supported on a plinth...
19th Century carved walnut chest of rectangular body and flat top resting upon feet. This is a characteristic arrangement of panels with shaped bracket feet, such as the 16th Century specimen in Figure 9. Different combinations and adaptations of these features occurred from time to time, but the similarity is traceable throughout.

2) The second form, seen in Figures 7 and 8, had a flat top, wholly rectangular, with eight sides, rested upon feet, and had the front divided into two or sometimes more decorative divisions, with lesser panels placed between or sometimes at the ends.

3) The third type of cassone is not dissimilar to the two preceding forms, so far as the rectangular chest was concerned, but stood high upon trusses or sledge-like supports, one at each end, like the specimen shown in Figure 13. This last-mentioned form of cassone gave rise, in all probability, to a slightly later modified piece of furniture, a hutch-like standing board, such as the example shown in Figure 6, which belongs to the latter part of the 16th or to the early 17th Century. It should be noted, as the 16th Century wore on, the wealth of Renaissance detail in the decoration of the cassone gradually subsided, until in the 17th Century the erstwhile exuberance was almost wholly replaced by a severe simplicity of paneling and moulding, with but little relief of carved devices. There was a simplification in contour likewise, and the sarcophagus form of cassone did not continue in the 17th Century.

We have said that the cassone epitomized the decorative processes and types of decoration characteristic of the period, so that one may gain from them a comprehensive grasp of these decorations in their application to other representative pieces of contemporary furniture.

The decorative processes were polychrome painting and gilding, both on flat grounds and in carved relief, applied over a gesso ground. (Continued on page 78)
TO a remarkable degree these same combinations would be in much more pronounced than the inharmonious forms, the effect is hues of the flower mass. So if color; yet white flowers, by rea­

son of their showiness, emphasize to a remarkable degree these lines of the flower mass. So if they are inharmonious lines, or inharmonious forms, the effect is much more pronounced than the same combinations would be in

color mixture, or even in any other single color. This is the plain logic of the situation, and we have to conform to it if we would succeed.

With the thought uppermost that white provides always the strongest contrast when used with any color, introduce strong con­

trast in the form of inflorescence also. Con­

trast in every way should be the essence of the effect resulting; vertical lines combined with horizontal, and combined with the most startling abruptness possible.

There are white forms of so many of the familiar flowers it seems hardly a thing need be omitted even though one proposes to confine himself to white alone. But when using white with other colors, select those that which have no du­

cates in the other colors in your garden. In this way, do­

include white larkspurs in a flower bed where the hardy asters are red or planted. All colors for a ists of contrast is lost in such a combination, and neither the white nor the blue flowers are impressive. Use different saves entirely—plants like ac­

tea or white campanula or white Stokesia.

Certain combinations with white are holier than others. All flowers of delicate coloring are intensified by proximity of white, naturally; and similarly, all flowers of strong color are strengthened. If a strong con­

trasting effect is desired, choose bright white to be a harmonizer, and similarly, all flowers of strong color are strengthened. If a strong con­

trasting effect is desired, choose bright white to be a harmonizer; indeed, it is the most showy of all colors, and it demands more careful consideration than any other, whether it is used in combination or alone.

The Character of Line

Let us consider first the character of flower mass as expressed in line or form. There are two very distinct divi­
sions, strongly marked. One is vertical, the other horizontal; and the latter is modified of­
times into what amounts to cir­

cular. That is, by the scattering of the flower heads over the plant, an all-over effect is cre­

ated, which presents itself to half closed eyes as a circle, or globe, roughly speaking.

All of the creeping plants are horizontal, pure and simple; but such things as feverfew and achillea, hardy chrysanthemums and the hardy asters are more than horizontal—they are all­

over, or globular, if you look at them through half closed lids to get the impression only.

It is always the custom to con­

sider the form or habit of growth of a plant when selecting for a special place or purpose; that goes without saying. But I do not think it is usual to give any more consideration to this when they are white one is choosing than is given to flowers of any color; yet white flowers, by rea­

son of their showiness, emphasize to a remarkable degree these lines of the flower mass. So if they are inharmonious lines, or inharmonious forms, the effect is much more pronounced than the same combinations would be in
or recommend another; but a white garden seems conservative enough and room almost anywhere. Yet there are many who would reject it as impossible, on the ground that it would be

...However, there are subtleties and niceties in “white” that altogether escape ordinary observation.

One may choose to have a white garden, green or a blue or a pink or a yellow garden, and be acceptable—that is, anywhere at all. But I would not choose to devote a garden to white flowers alone, with build-

...Dark stained shingles and somber dignity of half-timber demand color in all that approaches them; painted houses, on the other hand, are likely to be somewhat stiff without a certain gaiety in garden planting; houses painted in other hues are too uncertain to be considered in generalities of this sort; and brick houses are too rare.

Even the brick house, however, or a house of stone, there is almost as good an opportunity for the use of white flowers as is afforded; although with stone it is perhaps rather better to plan some diversity in color and the introduction of warm tones. Of course, color does not matter so much where the garden site is not immediately adjacent to the dwelling; but even here it is removed sufficiently not to be thought into relationship with the latter at all. I still would adhere to these general principles in adopting white as the motif, and the grouping with due regard for these lines. Important as these are anywhere, they are more important than usual in a garden devoted to one color; and most important of all in a garden devoted just to white. It is like an artist’s study in black and white, wherein composition and line afford him his only opportunities. Indeed, it is hardly exaggeration to say that anyone who has created one all in white. It may be great or small; it must be well designed. It should be simple in design, and of course, it ought to be enclosed in one way or another. Nothing is a garden without being thus set apart.

SIMPLICITY vs. ORIGINALITY

Simplicity of design is one of the most difficult, and at the same time one of the easiest things in the world to accomplish. It is difficult because there is invariably the wish present with the designer to create something “differently.” Now there is no such thing in the world as entire originality, and anyone who deludes himself into the belief that he has created a design hitherto unthought of has worked upon his own credulity to an alarming degree—or else he has actually gone over into the realm of mental shipwreck, and “designed” something too awful for contemplation.

There are gardens that I suspect have been developed in just this fashion; they are original and “different”—and they are nightmares! Avoid anything of this sort at all costs, even if you have to settle down to a single brick path bordered with flowers. There is not the slightest degree of originality about this. It is as old as the hills.

(Continued on page 64)

Try the Japanese bell-flowers in a good, large mass. They grow about 2' or more high and blossom in midsummer.
Instead of the usual iron hospital cot generally used on the sleeping porch, why not a day-bed? The color is green and the striping lapis-lazuli. Cushions and cover can be corn color. Chairs and table are painted to match the bed. A blue glaze pottery bowl holds the light. Steamer-chairs and deck rugs complete the scheme. The windows are arranged as in a trolley car.

The ceiling bed is raised and lowered by turning a crank installed in the wall. As the bed comes down, a false top panel automatically closes, leaving the ceiling complete. Sagless spring, iron bed, upper false ceiling, lower ceiling bed bottom, and necessary gear. Courtesy Soriken Bed Co.

Why should the sleeping porch in its revolting best smack so much of a conservatory? Make it livable—painted day-bed, chairs, tables, tile floor, or a painted to simulate tile, or two wicker chairs, and oases of silk or linens to shade to harmonize with color scheme of the room. Here is a sleeping porch that is presentable at any hour.

It may sound bit devastating but in these days of courage in decoration, the Egyptian sleeping porch is not at all altogether impossible. It is easily made. The floor can be painted burnt umber. Canvas curtains have Egyptian panels, characteristic shades. The sleeping hammock and chairs are upholstered in the any colors. The chair and table could be green—double Nile green with black striping.
OW, I want it distinctly understood
that if you two girls are going to
down your bed and sleep in two droopy
nocks out on the upper piazza, I am
to be routed out of my comfortable
in a decently warm room, no matter
happens. So don't get colds or any
ailment, for I mean what I say, and
not lend my room."
Not going to be sick ever, because
ding in the open air is the greatest
for the health, and hammocks!—
is nothing so relaxing or so restful,
ing as they do to every motion or every
A FLIGHT INTO EGYPT
the mummy idea, coupled with the fact
school studies in Ancient Art, suggested
decorative scheme for the sleeping-
ch. They had the wall of the house
ted a warm stone color, and a quarter-
inch line in Egyptian red framed the win-
dows, giving a panelled effect to the side
wall. The railing bounding the piazza was
stone color, with red line running down
each spindle. The floor was painted dark
red and divided into eight inch squares
by lines of the brownish-black of the Egyp-
tian style. A cream-white awning, whose
heavy roller kept it back out of the way
on starry nights, and rolled it down over
the pergola-like open roof beams and
dropped it to the railing or floor in times
of storm, was adorned with bands of lotus
flowers, framing a panel of stern Egyptian
figures in the characteristic reds, dull yel-
lows, blue greens and brownish blacks.
Nor were the canvas sleeping bags without
their lotus decorations.
A combination blind and awning is
shown to the right. It can be held
at any desired position. The slats
are wood and the supports phosphor
bronze, strongly constructed
throughout. Courtesy of the J. G.
Wilson Corporation

When the porch is of sufficient size, beds
are far better than hammocks to sleep in.
There are iron cots which cost as little, if
not less than hammocks, and whose well-
stretched springs, with a good hair or felt
mattress, offer greater comfort to most peo-
ple. The ends are no higher than the mat-
tress, so that in daytime the bed gives the
appearance of an inviting divan. For cold
weather warm things must be under as well
as over the sleeper, and a waterproof cov-
ering must be made to protect the entire
bed and hang well down over the sides,
aranged with an opening large enough to
slip the head through. Then the head must
be covered with a cap or helmet, also water-
proof, as a protection against colds.
To be sure it is not always winter on a
sleeping porch, and many people enjoy
reading or writing in bed. Therefore be-
side the bed stands a convenient table to
hold the lamp and books and other acces-
sories, while over the lap rests an invalid's
bed-table—a wonderful attribute for an in-
dustrious "lounger."

THAT SANITARIUM BARENESS
Many regard a sleeping-porch as merely
a sort of medicinal sleeping place used only
for the "misery" of night time. Nothing
(Continued on page 68)
The day bed below is wicker, 6' 2"
long, 30" wide. Fitted with remov-
able box and cushion covered in
denim. The chair, stained or natural,
can be had with or without cretonne
cushion seat.Courtesy of Minnet
& Company

The day bed below is wicker, 6' 2"
long, 30" wide. Fitted with remov-
able box and cushion covered in
denim. The chair, stained or natural,
can be had with or without cretonne
cushion seat. Courtesy of Minnet
& Company
In the corner of the garden of E. J. Berwind, Esq., at Newport is a lovely Venus mounted on an ivy covered pedestal and silhouetted against dark foliage.

GODS OF THE GARDEN
Pan Pipes The Birds to Song

Statuary can find no nobler spot than at the end of the garden axis surmounting the exedra behind a curved bench and the shallow basins of a fountain.

A young centaur holds up the dial to catch the laughing hours. He is in bronze and graces the lawn of Franklin Murphy, Esq. H. Van Buren Magonigle, architect.

COME OUT AGAIN
By Many a Stately Fountain

They drink from the fountain's rim, these children; their chubby hands clutching at the edge. It is called "Joy Fountain", by Edith B. Parsons. Courtesy of Gorham.
Sources of Supply and How to Utilize Them

CHAS. EDW. HOOPER

Some of the first problems which confronted man when he ceased being a hunter and became a grazer, was that of water supply for his stock. As much of the grazing land is more or less elevated, it followed that it was generally desert of natural water sources. Then, the birth of the water tanks; and thus we face the position of today, with hundreds of years of experiment and experience back of us. Indeed, our present methods have an ancestry far longer and far more interesting than our own.

When a man builds himself a house, he generally picks a dry spot, and the finished house has the chance, at least, of being a salubrious thing. When he plans for his water supply, it is generally after he has purchased or, at least located the house; then he is what he can get for his water. It is a question of suitability—the avoidance of low places, in which the surface water may gather; and the ridges, from which no water is to be gotten. How he locate his hidden supply is a question beside the province of this writing.

The home service is best supplied by gravity flow. Thus it is less liable to freeze than that of the more exposed sources of supply. The copious spring may partake of the above qualities. It often has possibilities with the hydraulic ram, and as such is a valuable possession. The ram is a mechanical device which enables us to raise a small body of water by utilizing the power of a much larger body. Or in other words, the impulse of flow is automatically checked and delivered and goes to waste. Thus it is less liable to freeze than that of the more exposed sources of supply.

The copious spring may partake of the above qualities. It often has possibilities with the hydraulic ram, and as such is a valuable possession. The ram is a mechanical device which enables us to raise a small body of water by utilizing the power of a much larger body. Or in other words, the impulse of flow is automatically checked and a portion of the flow diverted into our supply system. It is necessary to the working of the ram that the drop of the inflow or feed pipe be at least 18° below the source of supply, and that the length of the feed pipe be not less than 25'. If the ram must be nearer than this to the spring, the extra length of pipe may be laid in a 6' coil.

The ram may force water to a distance of from 1,600' to 3,300' and raise it from 100' to 200'. Water carried to a distance of 1,000' and elevated to a height equal to ten times the fall from source to ram, will deliver about one-fourteenth of the water used. Twice this delivery will be made if the elevation be only five times the fall. From this we see that our spring must be copious; the greater part of the water is not delivered and goes to waste.

The installation of the ram is perhaps best effected in a concrete pit, which is sufficiently large to allow working around the machine. There should be an effective drain about its base to keep the water from flowing over it, and the outlet to this should connect at once with a lower "splash pit" to save the waste from digging too deeply into the soil.

A wooden cover for the ram pit is best made in the form of a low pitched roof which swings back upon hinges. Ventilate this through the small gables. It is hardly necessary to mention that all covers and doors, which guard both reservoirs and mechanical contrivances, should be under lock and key to keep them safe from invasion and possible injury.

The waste of such a supply at once suggests a water garden with bordering poplars, pussy willows and like water-loving growth. Perhaps there can be an irrigating system beyond, where the water is collected in a fairly shallow basin that it may get the benefit of the warming sun.

The delightful possibilities of the screening of the ram-pit and the spring form a problem both simple and unusual. Success lies entirely in the judicious use of small trees, shrubs and plants. And it might be mentioned here that in all cases where a protective structure is built about any of the essential units of the water system, the introduction of planting may be used more effectively to tie the structure to the landscape and lend it harmony.

The Storage Tank

So much for the first step, the source of supply. Next comes naturally the provision of a storage place into which the water may be conveyed, in order that it may be fed by gravity into the house system. The most common system is that in which the tank is installed in the attic. This may be satisfactory for a small supply, but care should be taken...
THE RESIDENCE OF

HENRY R. SWARTLEY, Jr., Esq.

GREAT NECK, L. I.

There may be many modern entrances that reflect the Colonial spirit, but few do it so faithfully and so successfully as this. The iron balustrade is especially beautiful.

Although divided into separate parts, the buildings are co-ordinated into a unit. The living-room, hall and dining-room form one division, linked by the kitchen with the garage.

An upstairs sitting-room is one of the advantages of the second story plan. Bedrooms are arranged to command maximum light and ventilation. Closet space is plentiful.

Arched French windows on the lower floor and the pilared entrance relieve the straight Colonial lines. There is nice Georgian balance in the porches at either end.
If you question the ability of an architect to crystallize personality in a room, you have only to consider the masculine qualities established in this man’s room. There is a virility to the very walls, a solid austerity to the paneling, and a pleasing grace to the linen fold above the fireplace. Meilir & Meigs, architects.
In "Laurel Hall," the residence of S. H. Fletcher, Esq., at Indianapolis is a music room of piquant charm. The Chinese rug is old gold and old blue. Draperies are damask in old gold on mulberry. Furniture is French walnut, the walls cream, side chairs upholstered in needlepoint tapestry, and the cabinet is amber color lacquer. Cooper-Williams, Inc., decorators

The library of "Laurel Hall" has a fitting atmosphere of studious dignity. Woodwork is oak, the mantel Caen stone. The rug is plain taupe. Curtains are blue velvet in an antique weave. The furniture is oak and walnut, the upholstered pieces being in blue and gold mohair damask, plain blue velvet and needlepoint tapestry. Cooper-Williams, Inc., decorators.
One of the bedrooms at "Laurel Hall" has a large floral patterned paper on a cream ground. The furnishings are simple—simple mahogany beds with plain satin covers, and plain upholstered chairs. Cooper-Williams, Inc., decorators.

There should be something intimate about a bedroom fireplace. It need not be formal, although it should have a dignity in keeping with the character of the room. The carved mantel and panelled overmantel mirror in the bedroom shown to the right make a happy combination.

JOHNSTON-NIXON STUDIOS

The charm of this sun room lies in its simplicity. The floor is ivory and green tiling, the furniture ivory covered with green satin. Benches are marble with velvet cushions of rose geranium. Puff shades of green gauze. Mrs. Lorraine Windsor, decorator.

The walls of the dining-room at "Laurel Hall" are paneled in walnut broken by a carved Caen stone mantel. Curtains and portieres are of tapestry in an Italian design. The furniture is Italian walnut upholstered with plum colored figured silk velvet. Cooper-Williams, Inc., decorators.
A velvety lawn is not a perpetually self-maintaining stretch of grass that will withstand abuse and neglect. Its possession is bought by careful preparation, suitable soil, good seed and thorough, well-considered care.

GREEN LAWNS AND GRASS SEED FOR EVERY STATE

A Summing Up of the Best Varieties for All Conditions and How to Sow and Care for Them

HUGH SMITH

TIME was when the lawn, as popularly conceived, belonged almost exclusively to large estates. It called for a setting unmistakably grand, a setting wherein ivy-covered brownstone and turreted gables seemed essential to the effect of the sward itself. In a word, lawn spelled wealth. Happily, now, those days are past. The increase of homemaking by all classes, an awakening to home beautification, and an increased civic conscience have made the production and maintenance of lawns a matter of general interest.

Yet fundamental principles are often disregarded in lawn making. Poor results follow. It is difficult to impress on some people the fact that a lawn is not a perpetual, self-maintaining stretch of grass that will withstand every conceivable sort of neglect and abuse. To the average man it is a sort of neglect and abuse. To the average man it is a

LAWN SOILS

The character of the soil is the first consideration in successful lawn making. Whenever possible a sweet, mellow loam should be secured, and the lawn soil should have depth. Several feet of rich black earth is the proper foundation to work from. A layer of an inch or two of soil over a sterile, heterogeneous mass of refuse is the cause of many failures. The capillary connection between the surface soil and the subsoil must be good, so remove all debris from the ground before placing the surface layer upon it.

Besides depth there should be uniformity of texture. Let no great lumps of earth intermixed with the surface soil. Remove all stones and other rubbish.

The lawn is not like a cultivated field that can be plowed and planted with the rotation of crops. Lawns must furnish available plant food in large quantities. A layer of humus must be grown upon it; it is much easier to incorporate the humus with the soil at this time.

SURFACE AND DRAINAGE

Stable manure, preferably that which is well rotted, should then be applied and plowed under. The surface should then be thoroughly worked into a smooth sod-bed; simply having a smooth appearance on top does not mean much. The upper soil should be worked over with a garden rake until it is in a very fine texture; in fact, it should form a dust mulch.

The soil must have sufficient drainage. Low, wet spots become sour. It is

NORTHERN DIVISION

<table>
<thead>
<tr>
<th>Soil Condition Major Grasses</th>
<th>Supplementary Grasses</th>
<th>Southern Grasses for Winter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lawn</td>
<td>Ky. blue</td>
<td>Bermuda grass</td>
</tr>
<tr>
<td>Clay loam</td>
<td>R. L. bent</td>
<td>St. Lucie grass</td>
</tr>
<tr>
<td>Sandy loam</td>
<td>Creeping bent</td>
<td>Lydica canescens</td>
</tr>
<tr>
<td>General</td>
<td>Kentucky blue</td>
<td>Lydica nodiflora</td>
</tr>
<tr>
<td>Clay soil</td>
<td>R. L. bent</td>
<td>Bermuda grass</td>
</tr>
<tr>
<td>Sandy soil</td>
<td>Kentucky blue</td>
<td>St. Lucie grass</td>
</tr>
<tr>
<td>Extremely sandy condition</td>
<td>Beach grass</td>
<td>St. Augustine grass</td>
</tr>
<tr>
<td>Slightly acid condition</td>
<td>Creeping bent</td>
<td>Italian ryegrass</td>
</tr>
<tr>
<td>Dry conditions</td>
<td>Dense flowered bent</td>
<td>Kernflockgrass</td>
</tr>
<tr>
<td>Semi-arid conditions</td>
<td>Buffalo grass</td>
<td>Perennials</td>
</tr>
<tr>
<td>Shady conditions</td>
<td>Native grasses</td>
<td>White clover</td>
</tr>
<tr>
<td>Slopes and terraces</td>
<td>Various leaved fescue</td>
<td>Carpet grass</td>
</tr>
<tr>
<td></td>
<td>White fescue</td>
<td>Italian ryegrass</td>
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<tr>
<td></td>
<td>Kentucky blue</td>
<td>Bermuda grass</td>
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<tr>
<td></td>
<td>R. L. bent</td>
<td>St. Augustine grass</td>
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<td></td>
<td>Creeping bent</td>
<td>SOUTHERN DIVISION</td>
</tr>
<tr>
<td></td>
<td>Redtop</td>
<td>White clover</td>
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<tr>
<td></td>
<td></td>
<td>Italian ryegrass</td>
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<td></td>
<td></td>
<td>Kernflockgrass</td>
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<tr>
<td></td>
<td></td>
<td>White clover</td>
</tr>
</tbody>
</table>

The soil must have sufficient drainage. Low, wet spots become sour. It is
result to secure satisfactory results unless the soil is open and warm. If necessary, der-drainage by means of tiling should be adopted. This is a technical subject embraced largely by local conditions, and one having work of this sort to do should make a special study of its engineering phase with reference to the problem.

Lawn soils not in the lime-stone regions are apt to be somewhat acid. This condition should be corrected by an application of air slaked lime at the rate of thirty shovels to the acre. This is best applied as a winter dressing.

SEED MIXTURES

To the average buyer the various trade mixtures of lawn seed on the market smack of the alchemy of the Middle Ages. There is something awe-inspiring in the elaborate formulas of what to use, and where:

The map in Figure 2 graphically shows the regions to which the principal lawn grasses are adapted. There are three divisions. The first or Northern, shown by the unshaded portion on the map, embraces those States where Kentucky blue grass is the standard for practically all situations. The chief exceptions to its full use are in the central and northern part of the region. This has proved to be better adapted to shady conditions than the other grasses which are native to the United States. Those contemplating the building of lawns in this section should carefully study the varieties in common use in their particular locations and make use of the grass which is giving the best results.

The second or central division is shown by the shaded portion of the map. In this region the grasses which are native to the United States are virtually all situations. In the gray areas Kentucky blue grass is the standard for practically all situations. The chief exceptions to its full use are in the Atlantic coast region where the moist clay soils are inclined to be acid. Here you will find redtop and the other bent grasses as the basis for lawns.

The third or southern division, shown by the shaded portion of the map, is the region where Bermuda grass is the standard for lawns. A few other varieties are used in special cases, but Bermuda grass has thus far exceeded all others for common use. The chief exception to the general use of Bermuda grass in this region is St. Augustine grass. This has proved to be better adapted to shady conditions than the other and is consequently becoming more popular for this particular use.

(Continued on page 74)
THE GATE INSIDE
THE HOUSE

A Medieval Precaution
That Has Become
a Decoration Today

In the New York home of Reginald DeKoven, the composer, is a wooden Tyrolean gate placed between the entrance foyer and the stair hall. Door openings to receive the gate were designed by John Russell Pope, architect of the house.

Gillies

In old times castles were provided with inner gates of iron and wood designed to withstand attack should the enemy penetrate the inside walls. After the adoption of gunpowder, and with it the ability to destroy from a distance, the efficiency of such a method of defense was ended. But as the gates presented a certain decorative value, they were refined into ornamental forms. And that is the romance behind these gates that open into the music room of the residence of William McNair, Esq., in New York. H. Van Buren Magonigle, architect.

A novel assembling of the coats of arms of various branches of the family has been made on the gates in the residence of Stuart Duncan, Esq., at Newport. The house is Tudor Gothic and the gates are a characteristic decoration of this architectural style. John Russell Pope was the architect.

Between the entrance lobby and the main foyer in the New York apartment of Murray Guggenheim, Esq., are gates of the period of Louis XIV. They are of black wrought iron with decorations in gilt, fashioned after designs by McKim, Mead & White, architects. These illustrate the decorative value of interior gates—they withhold the view beyond and yet do not entirely obstruct it. They mark a division between rooms with less abruptness than would a door or portieres. They also add the significant sense of richness all hand-wrought iron gives.

The gate in the residence of H. H. Rogers, Esq., at Southampton, L. I., is after an Italian Renaissance design. It stands between the loggia and the upper horizon-terrace. Although not a typically medieval use, this serves decoratively, being shadowed against the light. Walker & Gillette, architects.
T is only fair that those who work the miracle of good taste preach its gospel. Decorators, like good wine, need no bush, nor do they desire explanation. The touch of good taste that they employ has made both them and their work not a little mysterious to those who have never chanced to fall into the merciful hands of a decorator. And they are merciful hands, for they do not care to guide a client's voice into the right path. But is there only one path? Scarcely, there are eight books by as many decorators, and while all claim allegiance to the same fundamental rules of decoration, each interprets them in a different fashion.

THE DECORATOR AS AUTHOR
Eight New Books Presenting Eight Viewpoints
On the Art of Interior Decoration and Architecture

It is the idea of considering the room as a rounded, complete setting for picture—a rounded, complete setting for either by reproduction or adaptation; it affords the present-day craftsman and purchaser. In the second place, it cannot fail to spur modern crafts-workers to emulate their predecessors' performances, either by reproduction or adaptation. In the second place, it cannot fail to spur modern crafts-workers to emulate their predecessors' performances, either by reproduction or adaptation. In the second place, it cannot fail to spur modern crafts-workers to emulate their predecessors' performances, either by reproduction or adaptation.

In "The Art of Interior Decoration," by Grace Wood and Emily Burbank, is shown a Directoire dining-room of rare distinction that is indicative of a style which will be in favor in the near future.

In the "Practical Book of Early American Arts and Crafts," by H. D. Eberlein and Abbot McClure (Lippincott, $6), the authors have set forth the fascinating results of the various forms of craftsmanship practised by our forefathers of the Colonial and post-Colonial periods. The record cannot fail, in the first place, to promote greatly an intelligent appreciation of the decorative art manifestations discussed, whether on the part of the habitual collector or of the chance admirer and occasional purchaser. In the second place, it cannot fail to spur modern crafts-workers to emulate their predecessors' performances, either by reproduction or adaptation.

The subjects covered include early American silver; glass; decorative metal work in iron, brass, copper, lead and tin; pewter; pottery, both within the present bounds of the United States and the majolica of early Mexico; decorative painting on household gear in its many ramifications; early portrait and allegorical painting; weaving; handblock printing on fabrics and paper; carving in wood and stone; and, finally, lace-making. This latter chapter has been contributed by Mahel Foster Bainbridge, who has done more than anyone else to revive this ancient craft.

The book, as its title implies, is thoroughly practical, in that it supplies exact data for the collector—witness, for example, the silver chapter with its list of silversmiths and their marks—and also an exceptionally readable and comprehensive volume of reference for the average person interested in one or another of the early decorative art manifestations. Furthermore, the presentation of subject matter has great suggestive value pointing to the ready possibility of a revival and adaptation of the old crafts for the enrichment of our architectural and interior decorative resources.

(Continued on page 72)
THE FINAL TOUCH TO THE LANDSCAPE SCHEME

Is Supplied by the Water Feature, Be It Pool or Fountain, Stream or Lake—Suggestions for Planning, Construction and Care

ROBERT S. LEMMON

AND when you have left the desert and come again to the fresh green of the river valleys, the last thing to which you grow accustomed is the sound of running water."

The last thing and, it might be added, the most welcome and soothing and wholly refreshing thing. In the glaring heat of the cactus country one misses keenly the softening effect of water in the landscape. By day, at least, the desert lacks intimacy, and when the reason is analyzed it is found to lie largely in the absence of flowing streams. For whether in Nature’s gardens or in our own small imitations of her handiwork, water as a purely esthetic feature fills a place which no other one element can hope to attain.

There is no need here to dwell upon this humanizing influence of water in our gardens—our interest is centered rather on how it can be brought to serve our needs. The running brook admits of the greatest variety of effects, perhaps, but for comparatively few of our gardens is it available. Most of us must of necessity turn to the various forms of pools and pond-like water gardens. In the planning, making and care of these are certain well-ordered rules.

FORMALITY AND NATURALISM

Broadly speaking, there are two kinds of water features: the formal and the naturalistic. The first may take one of several forms, such as the fountain basin pure and simple; the lily pool of regular contour, round, oval or rectangular, placed usually at the intersection of the garden axes; a geometrically accurate pool whose primary purpose as a mirror of the surrounding trees and architectural features is served without the use of any water plants.

It is not my purpose now to take up in any detail the subject of garden fountains and their accessories, as these fully deserve an article all to themselves. Today one can find in the open market all manner of fountain designs especially executed for garden use, and the only confronting problem is the selection of that one of them which will harmonize best with the planting scheme in general, and the exact location in particular.

All of these fountains, of course, have one point in common: they call for a source of supply which has enough force to cause the water to flow from the opening provided for. Provision must also be made to carry off the surplus water when the fountain is in operation. In some cases this overflow can be...
The automatic and intermittent jet is simplicity itself. Some arrangement must be provided to take care of the overflow.

Where space permits, a series of connected pools is sometimes desirable.

Proper planting leaves much of the surface to fill its place as mirror.

Perfect symmetry and surroundings, a water treatment seldom equaled.

The automatic and intermittent jet is simplicity itself. Some arrangement must be provided to take care of the overflow.

Where space permits, a series of connected pools is sometimes desirable.

Proper planting leaves much of the surface to fill its place as mirror.

Perfect symmetry and surroundings, a water treatment seldom equaled.

(Continued on page 70)
DEFINING COLONIAL ARCHITECTURE

Precedents and Their Modern Adaptation

WHAT is actually meant by the much discussed Colonial type of architecture? To the layman the term "Colonial" may vaguely suggest a column, or perhaps some antique dilapidated farmhouse, devoid of modern comforts, the habitat of our rugged and unpolished forebears. In the South, to be sure, the plantation idea creeps in with visions of hoop skirts, banjo clocks, smokehouses and slave quarters. One recollects a massive pillared portico, and a monumental staircase seen on entering the front door.

Here might be a good start in itself, but most of us get no further than a gabled house with a porch across the front, supported by a series of columns. Houses of this type are seen everywhere, and they are all referred to as Colonial. No wonder the prospective house-builder is either frightened at the suggestion of a Colonial house, or else believes himself thoroughly versed in its style.

Let us see where he can be enlightened and brought to a better understanding and appreciation of the subject.

The history of architecture teaches us that the periods or schools in its development have been brought about by the spirit of the age. If we look for the spirit of our country, housebuilding was confined to meager shelters of the log cabin type, but as the population increased and the hardships of pioneer days lessened, a more substantial and permanent form of dwelling was sought. Many men in the Colonies who had been trained in the mother country as builders and cabinet makers were now called upon to reproduce in the land of their adoption the style then in vogue in Europe. This style was known as Georgian, and its antecedents were classic.

Its chief characteristics were simplicity and refinement throughout.

TRADITION AND UTILITY

These qualities won for it quick favor in this country, and an adaptation of the architecture of the Georges began at once to spring up in the Colonies, departing from

The Colonial Plan

WILLIAM B. BRAGDON

In the traditional influence only, the limitations imposed by building materials and the purse of the builder demanded. On account of the lack of brick and the general wealth of unclaimed forest, Colonial designers almost exclusively made use of wood. A richer population did import bricks at times, but the majority of houses were frame.

Another element that influences the character of the Colonial house was its general isolation and exposure, which demanded a compact all-under-one- roof arrangement, easier to protect also to heat.

On account of the extremes of climate between Maine and Carolinas in the South, we find practical necessities producing different details such as the high first story and free use of the porch in the South, and the Northern type of entrance simple and flat to the ground. In spite of minor variations of a sort, the arrangement of room and ornamental detail is consistent throughout the house.

From origins like these, the Colonial architecture had its rise. The sources from which the present day architect draws his inspiration of Colonial work are principally located in Salem, Mass.; the James River, Virginia; Charleston, S. C.; and Savannah, Ga., although there are many excellent examples extant in every one of the thirteen original States.

What are the characteristics of the style we refer to as Colonial? Since the following discussion of a house should concern the relation of its parts, we shall begin with a plan in general.

The Colonial Plan

A "Colonial" plan consists of a narrow hall continuing through the center of the house from the front door to the rear, cutting the building in half. The stair hall, which with the fireplace mantels forms the principal architectural decorative feature of the interior, rise from this hall to the second story. From the entrance hall on the side to heat.

These rooms were used as reception rooms and library on the one hand, and parlors and dining room on the other. If the house was a small one, the reception room would have been a dining room and the room beyond as a kitchen, although it was more usual to locate the service quarters in an attached one-story wing with a lean-to roof.

The stairs are made the principal architectural feature of the true Colonial interior. This is the uncommon type.

One element of the Colonial plan was the house-depth hall that cut the building in half and gave it balance.

The second floor is usually a repetition of the first, the hall making a division of rooms that can be elaborated.
the rear of the dining-room. Often find only one large room on one side of the hall, which has come to be called our living-room. In the smaller house the porch is at one end, except at the front entrance or possibly a small one at the rear—but in the pretentious houses the porch was placed at each end of the building, accessible from the reception room and library on one side and from the pantry or a pantry and dining-room on the other. The stairs were made the principal architectural feature of the interior, because they were near the entrance door, and also admitted light to the lower hall. In some cases the stair in a continuous run from floor to floor, in others it is in a long run to a landing, and a short return back. The balcony med in the latter case is an attractive entrance on account of its balustrade. The more elaborate examples have either two of stairs, one against each wall, connecting to a common landing and returning in the center; or a central flight to a landing, returning in two separate runs, either in the opposite direction or to right and left, respectively.

However, many departures from any rule are made by introducing intermediate landings where the stairs box in the side walls or graceful circular runs in a first to an attic floor. Still the mentioned above may be called the usual one— a single stairway against one wall with a long run to a landing and a short return. The landing is placed high enough for passage under it to the rear or in the hall below by means of an arched opening.

SECOND FLOOR ARRANGEMENTS
On the second floor there is a repetition of the first hall story in the center, with the bedrooms on each side over the rooms below. There is no bath, and rarely a fitted attic story or a cellar.

In adapting the Colonial plan to modern requirements, the small front entrance, first floor hall and single staircase have been maintained, with a large living-room on one side, and a dining-room on the other with chimney and pantry behind. A service stair was also introduced in connection with the attic, or a short bath to the main stair. A fireplace is usually located in the center of one side of the living-room with a corresponding chimney on the side wall, and a second chimney the middle of the side wall on the other side of the case. This latter chimney is used for the fire flue, and possibly for a corner fire in the dining-room. In the modern house, there is general porch at one end, an enclosed porch,

or sunroom, balancing it at the other.

The second story contains, as in former times, the central hall and four chambers, with the addition of a bath at the front end of the hall. Sometimes a large owner's chamber is located over the living-room, and an extra bath may be introduced between two of the bedrooms by permitting one of them to be carried out in the rear, in case there is a kitchen extension.

THE ATTIC AND CELLAR
Often the attic is finished with two rooms, one at each end, and a store closet or an additional bath arranged in a position similar to the bath below. In this case the main story continues to the attic, either forming an open well to the first floor, or closed off at the beginning of the attic flight by a door and a partition.

As a final improvement on the old type of Colonial house, the cellar is excavated for furnace or boiler, laundry, a preserving closet and toilet.

Throughout modern work, some general variations from the original plan are permissible, variations made excusable by the fact that customs and conveniences have altered so materially since Colonial times. The requirements of good house planning today are different from those of three generations ago, and he would be an ultra-lover of the antique who would insist that they be disregarded merely for the sake of adhering line for line to the traditional examples.

Yet it goes without saying that the 20th Century reproduction of a Colonial house may be varied only with extreme caution, else it will lose that atmosphere which is one of its architectural excuses for existing at all. Too frequently we find this atmosphere sadly impaired in the completed house, even though the original conception may have been virtually correct. Period reproduction of any sort can be successfully carried out only by one who has full knowledge and appreciation of the historical precedents.

Comparatively few laymen have the time to attain such a mastery of Colonial architecture, or the natural aptitude to apply it consistently. Special training in the fundamentals of the plan as well as the details of its development is essential to success. That this training is seldom possessed, except by a professional architect is no more than natural.

(This discussion of "Defining Colonial Architecture" is to be continued in two other articles which will take up exterior design and interior treatment respectively. They will appear in the July and August numbers of the magazine.)

The usual Colonial stairs have at the main stair, a landing and a short return, the landing being placed high enough for a door beneath it.
SLIP COVERS

Once on a time we thought of slip covers only as a summer device to keep the house looking cool and clean. So soon as autumn came we packed them away. Now they have become an all-year device and in that capacity they serve a multitude of purposes. Besides keeping the upholstery beneath them free from dust, they cover up objectionable features of line and ornament which could otherwise be removed by changing the chair or getting rid of it entirely. In addition the cover offers an opportunity to give the room an interesting color spot.

FOLDING WINDOWS

The porch or breakfast room should be built so that it is ready for all changes of weather. To meet that requirement have been discovered the folding windows which do away with the bother of having the windows removed when summer comes, and prevent the sticking, leaking, and rattling of windows loosely hung. These windows work easily and quietly, they open outward and do not interfere with screens; they are self-adjusting, staying just where you place them. In a minute the porch can be enclosed against the sudden summer storm and in an equally short time opened to the cooling breezes.

THE CLOSET SLIDE

Not a one of us but knows the bother of diving blindly into the depths of a dark closet for that coat we hung a month ago on the last hook to the back. And when we do find it, we have to wiggle our way out. Here is a device which removes that trouble. It is an extension rod attached to the top of the closet. You pull the rod, the entire line of clothes rolls out within reach, and you make the selection easily.

SEASONAL CHANGES

It is unwise to tire of your furniture. If you must live in a house the year round, see that distinct changes are made when summer comes. Of course, you have always done this with the living-room and porch, but has it occurred to you to make your bedroom summery? In place of heavy curtains put up scrim or net. Cover the rug with denim. With white natural colored linen make a cover for foot and head boards. It can be stenciled and the edges piped with a gay color. Over the bed itself throw a cover. Two sides can be attached a full valance.

A WOOD WAITER

You are sitting beside the fire and the last log glows and pales into ashes. Tiredly lazy, you would rather freeze than get up and stagger back with an armful of wood. Why not then arrange for a wood waiter as a closet beside the fireplace? It can be readily built by any carpenter— a box with ropes and weights make the raising easy. A shelf will divide it into two compartments, the upper larger one for logs, the smaller one for kindling wood and paper. The man who tends the furnace will see that the wood is always loaded with kindling and logs, all you will have to do is unload it.
This Calendar of the gardener's labor is aimed as a reminder for the whole of us and all tasks in season. It is fitted to the latitude of the Middle States, but its service should be available for the whole country if it be remembered that for every one hundred miles north or south there is a difference of from five to seven degrees. Considerable tying in is necessary with an old hedge; this of course should be attended to before clipping is done.

6. If you have not already sown your flow- ers and vegetables, they should be attended to at once. Cautiously, all the animals may be sown, such as calliopsis, asters, calendula, phlox, stocks, and others.

7. Stop cutting asparagus just as soon as your peas come into bearing, and earlier with egg plants. Keep the bed a top dressing with manure, keep the weeds well stirred and don't dig up atid placed in a pot containing a little kerosene.

8. All kinds of for- ed crops such as asparagus, bedstraw, reticulosa, etc., should now be clipped. Even though you don't like these things still and formal, they should be clipped.

9. Roses can be improved in quality by the application of sprays. Keep the soil well aired and cut the roses to death. All the rose shoots should be cut off.

10. Transplant from seed beds into the open ground. This double thinning is well worth the trouble.

11. When the melon plants all their frames the latter should be removed, the plants sprayed out and cut down in the garden. Then spray regularly with Bordeaux mixture.

12. When the flowers fade or fall, save the seeds and use for the following year's planting. If this is not done, the flowers will be lost.

13. Don't neglect the orchard. Keep a sharp lookout for "yellow" on your peaches and pears, cut down and burn any diseased trees. Look out for the dangerous "fire blight" among apples and pears.

14. Flag Day. 14th of June. This is the time to plant flowers, etc., that are to bloom in the fall and early winter. This double thinning is well worth the trouble.

15. Carnation plants in the field should not be neglected, in fact winter's flowers depend on these being properly taken care of. Keep the straw well spread and pinch the plants into a good healthy growth.

16. Keep your tomato vines thinned out and given adequate air. These tomatoes should have early fruit.

17. Don't neglect to make your tall flowers before a sudden storm and that it rains. Remove the flowers and spray the plant with nicotine or kerosene for sucking in fungous diseases.

18. Keep the garden free from weeds, and being careful not to injure the new shoot when opening flowers, and do not neglect to figure ahead in time to prune the trees to figure ahead in time to prune the trees.

19. Summer pruning of fruit trees that have reached a bearing age is superior to spring pruning, as in this way, the fruit is small.

20. Keep your tomato plants thinned out and give them adequate air. These tomatoes will be early fruit.

21. Successional sow- ings should be made of corn, beans, lettuce, turnips, radish, beets, carrots and cucumbers. A good gardener never neglects to sow the seeds the plant is to be used for, but to keep the weeds out of the beds and make sowings as the proper time.

22. Thinning fruit trees that have reached a bearing age should be done before the fruit is small.

23. Keep your tomato vines thinned out and give them adequate air. These tomatoes will have early fruit.

24. Keep your potato- too well cultivated, but don't let them grow too big, and never neglect to figure ahead in time to prune the plants so flowers show. These should be sprayed with poison to kill the borers and Bordeaux should be used for brown spot.

25. Don't be afraid to pick flowers, as they will bloom in large clusters when picking them regularly.

26. Bush frames or greenhouses that are being used during summer should have a slit filled with some other form of shading. Don't use whitewash on the glass, as it gives too much shade.

27. Spraying is always necessary around your grounds. Use arsenic of lead or Paris green for leaf eaters, don't be afraid to pick flowers, as they will bloom in large clusters when picking them regularly.

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Crystal is now the smart thing for the dressing-table. These Colonial candlesticks, with Chippendale bead design, 9" high, $2.50 each; Colonial tray 12" long, $5.50; cologne bottle, Mayflower cutting, $4.50.

Of cut crystal, this oyster or soup plate—$2 a dozen. Glass cocktail cups, $1.50 per dozen.

English dinner service of crystal. Colonial gold decoration. Dinner plates, per dozen, $3; dessert ditto, $5.50; tea cups and saucers, $8; bouillon ditto, $12. Baker, $1.50; casserole, $4.50.

You may match your tea set, your breakfast room decorations, or your morning gown with a colored china jam jar 3" high. Cover, plate and spoon are of Sheffield silver, $2.50.

A water pitcher and half-dozen glasses of exquisitely cut crystal—$5 complete. The mahogany serving tray, 19" diameter, costs $4.25.

When my lady does not arise, she will enjoy her own particular breakfast china, bordered in basket design with pink flowers. Sixteen pieces, $5.50. Enamelled breakfast tray, 22" long, $2.75.
Straw garden basket with trowel, twine, shears and straw cuffs. 10½" wide, 5½" deep; black and yellow. $3.50

Kite enamel wardrobe cabinet and mirror, cretonne covered drawers. 18" 30" by 64" to top of mirror. $34

Felt or cretonne covered folding card table, white, enameled or mahogany finish. 30" by 27". Leather, $8.50

Night set with flower decorations. $7.50. The pitcher has a tightly fitting, dustproof cover

Brass Chinese hook of interesting design—for flower-bowl, birdcage, etc. $3

Damask with which table above may be covered, 36" or 50" material. Other coverings to order

Brass Chinese hook of interesting design—for flower-bowl, birdcage, etc. $3

To the left, the interior of a threefold wardrobe screen, with shelf and hanger. It is 5' 8" high, each panel measuring 1' 6" wide

Right, the same screen closed. In oak or mahogany with tapestry panels. $35.50. A fourfold screen, in any special color enamel with 80-cent cretonne covering, costs $48
F rom the middle of June to the middle of August it is usually hard sledding in the garden, and particularly in the beginner’s garden. The soil moisture because the garden is new, and particularly because the gardener is new. Scarcity of moisture, hot, dry weather comes, plants that grew most vigorously at the beginning of the spring get tired, weeds grow luxuriantly, and if one attempts to pull them up, they carry some of the rightful inhabitants of the garden along with them; plants similar to those that one transplanted readily in the spring, apparently survive the operation now, but within three or four days lie down and die. Even seeds from the same packet that sprouted vigorously in the spring are put in the ground now, and within twenty-four hours disappear mysteriously— they won’t come up themselves, and when one goes to dig them up have vanished entirely!

And yet the garden over the fence or across the way may be green and flourishing, as though the roots in it could reach down to hidden springs, or its owner possessed some magic by which he could ward off this midsummer blight.

Why the difference?
It is not sufficient to put it down to any such general cause as dry weather, or bad luck. The beginner almost invariably tries to find solace in the belief that he should have selected other varieties of vegetables or flowers. Let him not lay that flattering function to his soul! In nine cases out of ten a selection of varieties, though perhaps not ideal, is the least important of the several factors concerned.

The factors that are always important are:
- Loss of moisture; lack of air; shortage of plant food supplies the bugs; so that we have more reason to “conserve soil moisture.” For those who do not see that article—and to give a little more emphasis to a thing which can hardly be overemphasized—let me repeat briefly what to do.

I have seen even ordinary field stones or broken-down masonry put on 2” or 3” deep so as to keep the sun from drying out the surface. A mulch of this kind and egg-plants. A mulch around fruit trees. Among the shrubs especially benefited by mulching are currants, gooseberries, strawberries, cauliflower plants and egg-plants after a frost—without it they may begin to run out of steam.

There are tremendous days for the gardener. He has been enrolled to help feed the nations. Upon him rests the success of the allpled crops. No days are more critical than those of June, July and August for growing things. Here is the work set out to make the garden yield a bounteous crop. Don’t be a slacker—Editor.

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Still more effective than the dust mulch is the HOT WEATHER TRENCH

IN THE HOT WEATHER TRENCH
D. R. EDSON

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The dust mulch should be maintained in the flower garden as well as in the vegetable section. A law weed is the best tool for working around the plants.

Cutting flowers still do the plants no harm if you use judgment. As soon as the blossoms fade they should be clipped off to prevent their going to seed

Don’t SMOTHER YOUR PLANTS

A thorough stirring of the soil around plants always almost results in a noticed increased or stimulated activity in their growth. No soil moisture has been added by this cultivation, but two other important things are accomplished. First of all the plant roots need not breathe as well as to eat and drink. Where the surface of the soil is left alone for long intervals it becomes tight and hard, and air cannot penetrate it. By thorough cultivating, however, the soil is completely aerated and remains so. The surface becomes hard again from being wetted over or neglected. Besides admitting air such cultivation breaks up particles of the soil which escaped previous pulverization, thus exposing latent plant food to the moisture and the bacteria in the soil, converted into forms that plants can use.

So much is it true that even in dry weather it is every reason to keep your wheel hoe at the ready, even though the soil may be dry and the clear and free from weeds.
CAST back in imagination, if you will, to Arthurian days in Merrie England.

On the greenward behind a feudal castle a strange scene is being enacted. Regal ladies in girdled brocades are wildly applauding two knights in armor who cavort clankily on either side of a bank of earth that stretches between a bastion on one hand and a lance stuck upright in the ground on the other. With his mailed fist each strikes at a ball, striving to hit it to the far side of the barrier where his opponent cannot reach it in time for a return.

From within the closed visors of the two knights come sepulchral mutterings. "Forty-six — forty-thirty — deuce! — vantage in"—or whatever were the Arthurian equivalents of these stirring ejaculations of the courts.

Yes, they are trying to play tennis. Those were indeed the days of real sport, from hawking to hunting the Holy Grail. Of a truth there were giants in those days, as there must have been to wear armor through a hot five-set match—if they ever did.

And from then to now tennis has been known and played, a proof, if any were needed, of its worth as a game of wide appeal and undying popularity.

To be sure, the modern game is so widely different from that played by the nobles of King Arthur's and other courts that a casual observer would hardly recognize it. In two respects, however, a similarity can be clearly traced: in both games there were more or less smooth and regular playing surfaces, and in both a division—earth mound or net—separated the opponents' territories. Obviously, tennis cannot be played without a tennis court, and so we come without further preamble to the subject of the present article, the making of a sensible playing ground.

THE LOCATION

The first consideration in making a tennis court is the location. A space 60' x 120' will be required, the latter dimension running north and south so that the game can be played at any time of day without undue sunlight shining in the eyes of any of the contestants. A site nat-
urally well drained is the best, and under no circumstances should you select a hollow into which the seepage and surface water from the surrounding higher ground will find its way. If feasible, let the court be within convenient distance of the house, so that it may come to be an open-air gathering place—almost an outdoor living-room, perhaps, with the addition of wicker or willow chairs and tea tables, a summerhouse or lawn shelter, and the dozen-odd other attractive things now made for such summer purposes as these.

Too frequently little attention is paid to the matter of the court's background. A very light background, such as a white stucco house, for example, makes it difficult to see the ball passing across it. On the other hand, crowding trees are objectionable because their foliage is too dark. The ideal background, from the players' standpoint, is plain, ordinary blue sky.

Finally, in determining the site for the court, consider the amount of labor and expense involved in constructing a thoroughly satisfactory playing area. Each item as heavy grading and filling, much blasting of rock, etc., should be avoided if possible, for they are apt to run into large figures; and any slighting of the work will show sooner or later.

Broadly speaking, there are three kinds of tennis courts in use in this country: turf, clay and concrete. Which of these will be the best for you is something you will have to judge for yourself after reading up on and considering the special characteristics of each.

GRASS AND CLAY COURTS

The grass court is unquestionably the most artistic of these types—provided you take care of it. It calls for the best of soil and sodding in the first instance, and frequent rolling and cutting after it is once established. For best results the first instance, and frequent rolling and cutting—should be given a final smoothing off preparatory to playing on it. While many a good grass court is made without artificial watering in order to get the court very soft under the players' feet. While while a good grass court is made without under-drainage, the clay court virtually requires it. An excavation 1" deep should be made and leveled roughly with a spirit level. Then put in a 6" layer of trap rock or other broken stones the size of an egg, and level this. In ordinary situations a drain made of two lines of terra-cotta gutters should next be laid across the court at the net line. Fill these with stones and slope them enough to carry the water off at the sides—a 2" grade from the center to each end will be sufficient. If the soil is porous you can slope the court itself from the net to each end, giving it a grade of not over 2" and carrying off the water in this way. Where very heavy soil is involved, several lines of drains should be laid lengthwise of the court under the trap rock, sloped toward and connecting with the main drain at the net.

With the drains laid according to these suggestions, the next step is to put in a 3" layer of fine broken stone or coarse gravel, which may be pounded hard and level. On top of this go a layer of clay and sand mixture from 3" to thick, to form the playing surface. An average mixture consists of 1 part of sand to 2 parts clay, but this is subject to variation according to the quality of the clay used. The ideal to work for is a surface not too sticky to permit water to soak through easily, nor so porous to be soft under the players' feet.

Finally, level the surface and roll it repeatedly. If no rain falls, you will have to resort to artificial watering in order to get the court well packed. Should worms become troublesome any time, destroy them with one of the preparations made for this purpose.

USING CONCRETE

Advocates of the concrete court so widely used in California claim amongst other things, that this material admits of playing throughout the year. Unquestionably this is true.

Again, a well-laid concrete court is more permanent than one of grass or clay. One authority states that a 3" base of concrete, in the proportions of 1 sack of Portland cement, 2 1/2 cubic feet of clean, coarse sand, and 4 cubic feet of clean pebbles or broken stone should be laid on a 6" drain of foundation of cinders. The concrete should be mixed if possible in a joint at the net line is placed tared felt 1/2" thick and 4 1/2" wide and reinforcement in the concrete itself is furnished by wire fabric pressed into the concrete base before the latter sets.

The surface layer of the court is made in the proportions of 1 sack of Portland cement to 2 cubic feet of clean sand, mixed stiff. Half a pound of carbon black mixed with each sack of cement will give a grey shade to the court which will be easier on the eyes than the uncolored mixture.

Where the ground is uneven a court may be made by careful grading and the use of retaining walls
The Beauty, the Charm and the Interest of RARE ANTIQUE RUGS are embodied in our perfect reproductions.

In the interesting design depicted above is represented a Persian garden in which are shown streams of water, flowing from a central pool, and bordered by rows of cypress trees and flowering shrubbery.

The balance of the design shows a formal arrangement of trees, etc., characteristic of the East.

The above design, and many others of great interest, are reproduced upon our own looms in the Orient, in qualities ranging from moderate prices to those of extreme fineness.

We should be pleased to write you further upon request.

W. & J. SLOANE
Direct Importers of Eastern Rugs
Interior Decorators    Floor Coverings and Fabrics    Furniture Makers
FIFTH AVENUE AND FORTY-SEVENTH STREET    NEW YORK
“Do your bit” to increase the country’s food supply

by making your garden produce its maximum.

Insure the success of your planting and make
the most of your expenditure for seeds and
fertilizer. Each foot of soil will yield its utmost,
regardless of heat or protracted drought, if you
install the

Cornell Systems of Irrigation

An arrangement of underground piping leads the
water to upright sprinklers capped with the famous
Rain Cloud Nozzles which deliver a fine spray or a
heavy rain, as you prefer, over every part of the
garden. The volume and heaviness of the shower
can be controlled perfectly, giving just the amount and
character of irrigation which you need. Cultivation is
not interfered with by this installation.

For your lawns use the Cornell Underground sys-
tem with Rain Cloud Nozzles. Perfect irrigation over
the whole area and no interference with mowing.

Write for illustrated literature.

W. G. CORNELL CO.

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Leader-News Bldg.

Kansas City, Mo.

Commerce Trust Bldg.

Underground System for Gardens

(Continued from page 3)

Country House Water Systems

A successful grouping shows a
house and elevated tank in a country
well. Below the tank is provided
room for tools

taken to provide the tank with some
measure to guard against overflow.
Such arrangement might mean much
damage to the rooms and goods be-
low. Perhaps the best form of tank
is built of glass, with proper rein-
forcements and stay rods, and lined
with tinned copper. Another way is
to build the wooden structure like a
mill pondstone—planks laid flat, that
one another, each course tarred and
stuck together. Whatever form of
tank may be used, it is necessary that
the house structure be designed to
carry the extra load involved.

ELEVATED TANKS

In connection with this we might
mention the elevated tank, which is
incorporated in a tower, forming
part of the house itself. The design
for the enclosing concrete shell
is not necessary that it be enti-
fully below the ground level, as its
trading portion may well be en-
and sod covered to the opening at
top. But it is altogether desir-
that an interesting shrub or plant-
be devised to remove the possibility of the mounding be-
taken for the grave of the fan
skeleton or a pet elephant.

FORCE AND LIFT PUMPS

The problem of lifting water from
its source is solved by the pump,
it being merely a case of lifting the
ordinary well for the pail into
water, or educt pipe, which by t
way does not touch the li
bottom, as its l
conveyed into the lower end of t

principle is simple: air under pressu
which there are many good mak

A pump may be used. In the "air lif
pump might mean an "air life" pump may be
advantage. The princi
pump is perhaps the bes
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For a well that is well filled, wh
in an "air life" pump may be
advantage. The principle is simple: air und
conveyed into the lower end of t
water or educt pipe, which by t
way does not touch the botto
well. The small air pipe may ei
side or outside the educt pi

pump, is perhaps the best
there are many good mak

For a well that is well filled, wh
in an "air life" pump may be
advantage. The principle is simple: air und
conveyed into the lower end of t
water or educt pipe, which by t
way does not touch the botto
well. The small air pipe may ei
side or outside the educt pi

(Continued on page 60)
Uni-Lectric Light and Power for Every Summer Home

Owners Like LUTTON Greenhouses

because they always get full value for the money expended; the graceful design and attractive finish are a continual source of satisfaction; built to give long service, their upkeep cost is small, and they are wonderfully productive.

The Uni-Lectric brings to the summer home electric current for both light and power. At a very nominal cost you can have all the lights you need—you can operate the various electrical conveniences and you can have 24 hours' continuous service every day if you wish.

Big Capacity

Because of its generous capacity for power and heat as well as light, the Uni-Lectric makes the ideal outfit for summer homes. Its capacity is sufficient for 30 lights in one time. You can operate an electric water supply system, electric heater, electric iron, vacuum cleaner, electric fans, percolators, toaster ovens, foodless speakers, and large electric places with capacity for breakfasts, soups and ordinary dinners. Your large kitchen range need only be used for one meal per day.

Then without one cent of extra expense you can charge the six-volt storage batteries of your car or motor boat while using current for other purposes.

No Belts—No Batteries—110 Volt

Our patented, high speed, rotary sleeve valve engine drives the generator with such smoothness that all necessary for storage batteries is done away with and the renewal of batteries and battery upkeep cost is permanently eliminated. Moreover, with the Uni-Lectric the summer home owner is never bothered with the troublesome job of draining off and refilling batteries every fall and spring.

The Uni-Lectric generates standard 110 volt current the same as city lighting plant. Uses the same standard lamp bulbs and electrical devices used in your city home and obtainable in any electrical supply store.

Easy to Care for—Easy to Operate

The Uni-Lectric is built in one compact unit with the engine and generator direct connected. Extremely simple in construction; only 24 inches wide, 25 inches high. Can be placed in any convenient location, no foundation required. The Uni-Lectric requires only the care and attention that any motor or generator requires and you would give any machine for which you expected many years of service.

Wiring may be so arranged that engine can be stopped by switch located in bedroom.

Storage batteries are unnecessary with the Uni-Lectric we guarantee the entire outfit. It has proven its efficiency and economy by actual service in the hands of users.

WATERMAN MOTOR COMPANY
164 Mt. Elliott Avenue, Detroit, Mich.
Write today for a free copy of our big, instructive catalog on electrical conveniences and you can have 24 hours' continuous service every day.

Clean, safe, freshly-filtered Water Is a Comfort and Protection to your Home

For all household purposes—in your bath; in laundry, kitchen or pantry—its value is evident. Trouble from leaky faucets or valves is largely avoided. Bathroom fixtures, piping, boilers, etc., are protected from discoloration and accumulations.

Loomis-Manning Filters

afford the maximum of such protection because they are scientifically designed to keep in excellent working order and are made in a substantial, durable manner. They require no expert care.

These filters can be readily installed without confusion in new or old houses or buildings. The parts can be taken through an ordinary doorway. They cause no appreciable reduction in the flow of water or in pressure, and are suited for use with any kind of water supply system—either city or country. They are made in several sizes and types to meet any water conditions.

Hot Water Discoloration Eliminated

Loomis-Manning Filter Distributing Company
Est. 1880
1445 So. 37th St., Philadelphia, Pa.
Where it is an object to save floor space and avoid the plunger type, the rotary pump may be used. The working principle of this pump is that of a revolving piston, which gathers up the fluid and ejects it at a central discharge. It is light, simple and compact as well as easy to operate. It may be driven by belt, wheel gearing, direct connection with an electric motor or other power plant.

As to Mechanical Power

Taking up forms of mechanical power, the first is that obtainable from the windmill. The idea is an old one and has been commercialized so as to be quite common. It should be used only in such places as are outside the house—outside the house—for it is sure of considerable wind; otherwise it is practically useless. It is hardly worth while, in ordinary cases, to consider the problem from the point of view of the picturesque examples of Europe. While excellent as mere designs, their adaptation to modern practical uses involves more expense than the tinkering over of the modern style. However, there is nothing to be said against the old style, provided one's wallet is fat enough to bear the trouble. Much has been done in this way that is excellent in many ways.

We build Standard and Special Wire and Iron Fences to meet every conceivable requirement and will gladly study your particular fence problem and submit designs and estimates. Fences for Suburban Homes

C A T A L O G S

Our Catalogs describing Lawn and Garden Fences, Tennis Fences, Iron Railings and Gates, Farm Fences, Poultry, Dog and Special Enclosures will be found very helpful. Ask for the one you require.

Anchor Post Iron Works

11 Cortlandt Street, (13th floor)
NEW YORK, N. Y.
And Berry Finishes are Best for the Kitchen too."

There is a dependable Berry Brothers' product for every finishing need. Liquid Granite Floor Varnish, Luxeberry Enamels, Luxeberry Wood Finishes, and Luxeberry Wall Finishes are but a few of the many Berry brands that home owners, architects and decorators have preferred for more than half a century.

Is Your Laundry Equipment Satisfactory?

If you could see the Daylight Washing Machine in operation, you would know why we claim for it Superiority over all other machines. It Pumps Air and Water, through the clothes, by Force and Suction, not only cleaning and purifying in the best sanitary way, but giving a renewed Whiteness not obtainable by any other method.

It does this with less energy, less drudgery and without the disagreeable noise and clatter, common to other machines.

A handsome, sturdy, complete machine. All parts correctly machined. All metal parts Galvanized, with Nickel Plated Control Levers.

Complete information on request to Dept. H.

Puffer-Hubbard Mfg. Co., Minneapolis, Minn.
Alnwick Bedspreads

Beautiful creamy white bedspreads with elaborate designs worked entirely by hand, and finished with hand tied fringe. We make the specials to order without extra charge and also make pillow covers and valances. The spreads may be used on any style of bed. If preferred, they can be had without fringe, or with fringe on the sides only, for beds with footboards. The prices are from $15 to $40. We will gladly send a number of designs on approval if references are given.

THE HANDWORK SHOP
57 Market St. Poughkeepsie, N. Y.

Alnwick Bedspreads are an investment, for they last a lifetime.

FLINT’S FINE FURNITURE

FLINT & HORNER’S SUMMER FURNITURE

For Country Homes, possesses that inimitable refinement and elegance of detail synonymous with 'Flint Quality' and 'Hornor Service,' and is designed for the homes of all, however simple or luxurious the appointments.

Particularly beautiful among the many exclusive designs in Enamelled and Light Woods which we have on view, are exquisite pieces, hand-painted in reproduction of Adam and Sheraton designs, also Chinese and Japanese Lacquer.

ORIENTAL AND DOMESTIC RUGS AND DRAPERIES

FLINT & HORNER CO., INC.
20-26 WEST 36th STREET
NEW YORK

Sword-Guards of Feudal Japan

(Continued from page 25)

damascening in gold and silver on iron. The second Ken'nye encrusted his sword-guards with copper ornament and Hiranuma Donin introduced the use of translucent enamels. The pierced work of Kinai of Echizen is supreme in its elegance of form.

NEW SCHOOLS OF TSUBA

The close of the 17th Century gave rise to three schools of tsuba decoration—the Nara School, revolting against the academic style of the Goto, the Yokoya School and the Omori School. In the work of the masters of all three of these schools, the Goto influence may still be traced, even though such metal-workers as the Nara tried to get away from it.

The School of Ishiguro (Yedo) of the early part of the 19th Century came to be famous for its flat incised work, introducing colored surfaces. Kano Natsuo may be mentioned as the last tsuba maker of distinction. The tsuba of the period between 1840 and 1870 were very elaborately decorated, and obviously could never have been used for their professed purpose. However, the collector will wish to acquire specimens of them, if only as examples of the marvelous handicraft of the Japanese metal-workers.

COLLECTORS’ HINTS

Nearly all of the imitations of genuine old tsuba can be detected by holding the guard on one’s finger-tip and striking it sharply with another piece of metal. The genuine will emit a bell-like sound, the imitation a dull one.

A perfect patina is always sought for in a tsuba. The false particulars are quoted by Hisai Professor Roberts-Austen: “A ses show that the former (shibuichi, another important alloy) contains from 50% to 67% of silver, from 30% to 50% of silver, the traces of gold and iron. The composition of the name shibuichi is clearly incorrect. The precious metals are sacrificed in order to produce certain results in the case of shakudo, the gold enabling the metal to receive a rich plique coat, or patina, as it is called when subjected to certain pickling solutions: in that of shibuichi, the alloy forcing the metal to assume a beautiful silver-gray tint under the same process. It is one or other of these influences which gives patina to all Japanese metals, as is understood by their craftsmen, a way which no other has yet arrived at. A worn-out patina will often assert itself by the aid of moisture in handling the moisture of the acuteness of the producer forming his alloy so that the formation of the patina should rest by a treatment which an article everyday use is sure to obtain.”

(Continued on page 64)
As you can see from the illustration,

**"EXCELSIOR" RUST PROOF FENCE**

is quite sturdy, yet graceful and pleasing in design. It has wonderful rigidity and strength because of the overlapped loops, interfaced wires and the Excelsior patented steel clamps which hold vertical and horizontal wires firmly together. AFTER being made it is dip-galvanized, which not only makes it rust proof and long lasting, but firmly binds the whole together.

Send for catalog C and you will have complete and interesting information.

Ask your hardware dealer for EXCELSIOR garden necessities, such as Rust Proof Tree Guards, Tennis Railings, Gates, Bed Guards, Trellises, etc.

WRIGHT WIRE CO.

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**This Book Solves Your Garbage Problem**

It describes how Homes, Apartments, Institutions, etc., are kept clean and free from all germ-breeding, unsanitary, unsightly garbage and refuse, at cost of garbage container renewals, by

Destroys by burning artificial, natural or gasoline gas, waste accumulations of every description. Odorless, inexpensive, compact, always ready. A type for every purpose.

Free copy of "The Invisible Garbage Man" sent anywhere. Write for it.

E. C. STEARNS & CO.
110 Oneida Street
Syracuse, N. Y.

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**The Shelf of a Thousand Uses**

Convenient and attractive in appearance, this newly-Invented portable shelf solves a multitude of problems for the housewife. The illustration suggests its use in the library or reading room—it is just as helpful in other parts of the house, on porches—everywhere. Once tried, it will be found

A House and Garden Necessity

Hangs on a common nail anywhere, folds when not in use. Made of sheet steel, enamelled in various colors.

Welds a corner, supports weight of 20 pounds. Size 15 inches square. In demand for all sorts of uses by all classes of people, the world over.

Finished for indoor use in green, brown or black, 40 cents each, 64.90 a dozen.

Order finish for indoor use in white, light green, light blue, light brown, dark green, French gray, tan, olive, green, dark brown, black, 49 cents each, KRW a dozen.

Send for booklet.

THE GEO. W. CLARK CO., 259-C Fifth Ave., New York

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**TOWNSEND'S TRIPLEX**

The Greatest Grass-Cutter on Earth
Cuts a Swath 86 Inches Wide

Floats over the uneven ground as a ship rides the waves. One mower may be climbing a knoll, the second skimming a level and the third paring a hollow.

Drawn by one horse, and operated by one man, the TRIPLEX MOWER will mow more lawn in a day than the best motor mower ever made, cut it better, and at a fraction of the cost.

Drawn by one horse, and operated by one man, it will mow more lawn in a day than any three ordinary horses, drawn mowers with three horses and three men. (We guarantee this.)

Does not smash the grass to earth and plaster it in the mud in springtime, nor crush out its life between hot rollers and hard, hot ground in summer, as does the motor mower.

The Public is warned not to purchase mowers infringing the Townsend Patent No. 1,209,319, Dec. 19th 1916

Send for catalog illustrating all types of Townsend Lawn Mowers

S. P. TOWNSEND & CO., 17 CENTRAL AVENUE ORANGE, N. J.
The spirit of the summer boudoir with its light, delicate draperies is reflected in this Handel Lamp. The charming floral design makes it an attractive gift for the June bride or the girl graduate. Handel Lamps, created by expert craftsmen from exclusive designs, are noted for their individuality.

Ask your dealer to show you Lamp No. 6483 or write for illustrated booklet.

THE HANDEL COMPANY, 390 East Main Street, Meriden, Conn.

**Sword-Guards of Feudal Japan**

(Continued from page 62)

One of the most important styles of ornamental metal-work is Zogan, a process which includes damascening and is subdivided into: Hira-zogan work where an undercutting retains the hammered-in inlay (if flush with the surface, this is called Hira-zogan, and if it is in relief, Tabazogan); and Snu-zogan work which derives its name from surface growing, incised to represent linear mesh.

The second style of ornamental work is included under the names of the Kebori and Katahiri. With Kebori the work is finely cut, and the solid designation of this class of work signifies "hair lines engraved." Katahiri work produces engraved lines varying in depth to produce the effect of painting. The Japanese hold this style in high favor. The works of ornamental metal-work in Nihon, work in this style is carved relief, low relief being distinguished by the name, Uzunobori, and high relief, Katahori. The final style is Ukishima. This is metal-work in low relief, and is often to be found in screen carvings.

The subject of Japanese metal-work must ever prove one of fascination to the student of art and even a very small collection of Japanese swords will serve to cover the general field of representational work. Many other articles of collection, such as the two internees of former utility and present beauty, are included under the names of the Marshmallow; that shall be picturesque are innumerable. I have prepared a tabulated list of the white flowers which are at the head of their section of the floral world, dividing them into the two classes of vertical and horizontal; in each class, into tall and low growing. In the composition of a landscape, the artist chooses horizontal or vertical to be his leading motif, using the other only as an adjunct to this and for emphasis where needed. Do the same thing in garden composition; choose the one or the other to dominate, and introduce the other for variation. Usually it will be the horizontal—the broad and sweeping mass—that will dominate, while the vertical will furnish the explanation points, the active principle—the watchful aspect.

Twelve Good Sorts

As to the flowers themselves, if I were to choose first, the foxglove; second, the giant marshmallow; third, the white Iceland poppy; fourth, the white Japanese bell-flowers (Plantago); fifth, Physostegia alba, the false dragon's head; sixth, "Fair Maids of France" (Ranunculus acris); seventh, the knotweed (Polygonum compactum); eighth, the meadow sweet, ninth, the white Stokes' aster, and tenth, the "snow queen" (Iris Sibirica). Then I might add a Speciosum album lily and some flowering spurge, which is Euphorbia corollata. With this even dozen, flowers all summer and a composition to delight the eye of the most exacting would be assured—providing, of course, that they were well arranged.

What constitutes good arrangement, given these twelve to work with? Let us take the first thing that comes to mind, and make it the foreground around which the others are placed, with the other two aspects in mind—of the marshmallow and foxglove. For the two are vertical. The other two are not, save as the height of the marshmallow brings its great blossoms well above the ground. The poppy will furnish a decidedly horizontal effect, while the one or the other to dominate, and introduce the other for variation. Usually it will be the horizontal—the broad and sweeping mass—that will dominate, while the vertical will furnish the explanation points, the active principal—the watchful aspect.

**GROWING HABITS**

All of these things are easily grown—and perennial, except the foxgloves, which are biennial. A garden is not necessary to provide seedlings each year, though I find it more satisfactory to do so usually for the reason that the seedlings can be set in the ground or in a bed of topsoil just where you want them to be. Moreover, it is not necessary to be choked off by the plants of the previous generation.

Instead of planting seed each year, you may simply take up as many of the seedlings that have sprung up around the parent plants as you are going to want, set them out where they are to grow, and if their first summer is undisturbed, then shift them to their proper places in the autumn or early in the next spring.

(Continued on page 66)
At Least Two of its Advantages Well Worth Careful Consideration

As soon as you light a fire in a Kelsey, you at once start getting heat. No waiting for water to circulate or steam to generate.

In the early, frosty days of Fall and the late, bit-dampish ones of Spring: you can with surprisingly little fuel and attention, keep your entire house an even, delightful, healthful temperature.

Compare such an ideal condition with homes you know of, where the fire is started as late as possible, and allowed to go out as correspondingly early.

What is there so essential to the health and happiness of your home, as the comforts of a dependable heat? Not only dependable, but healthful.

In order to be healthful, it must heat with freshly heated, fresh air. It must ventilate while it heats. The Kelsey does.

The Kelsey is a fresh air heat. It’s a moist air heat. It’s an agreeably delightful heat. It’s an economical heat. Costs no more, but does more, than radiator heats. Send for booklet.

The Terra Cotta TILE ROOF on this handsome residence of Geo. H. Rompe of Oak Park, Ill., is of the pattern known as the Imperial Spanish. (See detail more clearly shown in border of this ad.) The Tile Roof has not only added to the character beauty of the building, but provided a shelter that is proof against all weather changes and absolutely fire-proof. Will require no paint, stain or repairs to preserve its beauty and last forever—proof against time.

LUDOWICI-CELADON CO., Manufacturers of Terra Cotta Roofing Tiles
General Offices: 1107-17 Marion Building CHICAGO, ILL.

Address Ornamental Department
THE J. L. MOTT IRON WORKS, Fifth Ave. and 17th Street, New York
Illustration shows white stucco home of F. D. Adams, materials now. Write for free illustrated booklets. "Medusa Waterproofing" and the "Medusa Waterproofed White Cement." Learn about these artistic and economical building materials and integral waterproofing material that becomes an inseparable part of the Portland Cement without affecting its strength, setting or color.

Medusa Waterproofing is furnished in both paste and powder form. It is inexpensive and can be used by inexperienced workmen. We also furnish Medusa Grey Cement and Medusa White Cement waterproofed. This material is used the same as any good Portland Cement.

We also manufacture Medusa White Cement, the original non-staining pure white cement. This material is especially well adapted for the most beautiful exterior and interior decorations in columns, steps, railings, halstrades, pergolas, fountains, concrete garden furniture, etc.


THE SANDUSKY CEMENT COMPANY
Dept. D., CLEVELAND, OHIO


THE SANDUSKY CEMENT COMPANY
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Illustration shows white stucco home of F. D. Adams, New Haven, Conn. Made permanently waterproof and non-staining with Medusa Waterproof White Cement.

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Illustration shows white stucco home of F. D. Adams, New Haven, Conn. Made permanently waterproof and non-staining with Medusa Waterproof White Cement.
The largest and finest collection in America, embracing the best Hardy and Tender varieties of Nymphaeas, including Day- and Night-blooming kinds, also Victoria Regia, the Royal Water-Lily in several sizes. Nelumbiums, in strong pot-plants (or dormant until June 15).

These are fully described in Dreer's Garden Book for 1917, together with cultural instructions on the growing of Water Lilies. The best Catalogue published, containing 288 pages, four color and four duotone plates, hundreds of photographic reproductions, and offers the best of everything in Seeds, Plants, Bulbs, etc.

Mailed free if you mention this publication.

We offer free to our patrons the advice of our experts in devising plans for ponds and selecting varieties.

HENRY A. DREER, 714-716 Chestnut St., Philadelphia

Cabot's Old Virginia White

The New, Brilliant "Whiteash-White"

Old Virginia White has real distinction. It is a softer but brighter white than paint, and its texture is essentially different. It is as handsome as new whitewash and as lasting as paint—through cheaper. It has the genuine old Colonial effect and when combined with

Cabot's Creosote Stains

on the roof the result is so thoroughly harmonious and distinguished that your house is sure to represent the latest and best in exterior decoration.

You can see Cabot's Stains all over the country. Send for stained wood samples and name of nearest agent.


4 W. Kinzie St., Chicago 523 Market St., San Francisco

For Beautiful Weed-Free Lawns

LAWN SILICATE

KILLS WEEDS—NOT GRASS

renders invaluable service to every home, estate and club. You can have beautiful lawns—without paying the excessive cost of hand-weeding—without disfiguring the lawn—without injury to the grass.

Merely sprinkle Lawn Silicate on the weeds. Being a powder, it sifts past the perpendicular-growing grass and settles only on the flailing weeds. The chemical burns into the weed and is drawn down to the very root—killing the weed permanently.

25 lbs. of Lawn Silicate will cover from 2,000 to 4,000 sq. ft. Prices f. o. b. Bound Brook, N. J., 100 lbs., $5.50; 25 lbs. $1.50.

Special Offer We will furnish you a 25-lb. bag on receipt of $1.50 and this coupon—sent postpaid if you mention your dealer's name.

CHIPMAN CHEMICAL ENGINEERING CO., Inc.

Grass and Weed-Killing Chemicals

used for maintaining beautiful, weed-free gutters, drives, paths, tennis courts and other grounds. Comes in concentrated liquid form, to be diluted with 20 parts water. One application does for the season.

CHIPMAN CHEMICAL ENGINEERING CO., Inc.

95 Liberty Street, New York

Enclosed is $1.50 for 25 lbs. of Lawn Silicate.

Name ..................................................
Address ..................................................
Dealer ..................................................

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Until July 25th We take advance orders for the VERY CREAM of Darwin, Breeder and Rembrandt.

TULIPS and best NARCISSI

Let us send our Special List of these and also our Autumn Catalogue

FRANKEN BROTHERS 518 Grand Ave. Deerfield, Illinois
O\n Our modern methods applied to building enable you to get more house for less money, if you buy Bossert Houses. Just as modern machinery has displaced slow-old-fashioned hand labor in almost every line of manufacture, at a great saving in time, labor and money, so in a Bossert house you buy the finished product and save in materials and the high cost of slow hand labor. Bossert houses are not ready cut lumber, but completely built houses, built of standardized units and ready to erect. No painting to do, no muss and fuss.

Here we show two houses from the many in our catalog. One an all-year-round Dutch Colonial home, air chamber construction, with two 9 x 12 bedrooms, a 9 x 18 living room, kitchen, etc.; screen, lattice work and benches included in price of Eleven Hundred Dollars, exclusive of plumbing. F. O. B. Brooklyn.

The other a delightful camp for summer use. Either can be put up quickly by unskilled labor. Send 12 cents today for complete catalog showing details of Bossert construction.

LOUIS BOSSERT & SONS, Inc.
1306 Grand St., Brooklyn, N.Y.

Full Fence Protection

THIS is the day of full utilization; the day of efficiency. To make every square foot of your property pay you full dividends (whether in crops or in pleasurable satisfaction) you must protect it. Protect it from lawless trespassers, as well as from thoughtless children, chickens, dogs and nameless other things.

This staunch fence with its close heavy mesh and meandering lath wire overhang, bars all intruders. It affords full protection to orchards or outside boundary lines.

The same design in a lesser height, without the hurdle wire overhang, is ideal for gardens or yard enclosures. It is moderate in price and easy to erect. It is not too late to secure such fence protection this year. Let us send you the facts and figures about the enclosure to meet your particular requirements.

100 CHURCH STREET New York City

The Best White Flowers

(Continued from page 66)

Hesperis. Snowflake, Creeping, large-flowered—May and June.

Gazania, pyramid, hybrid Schueppke. 10'. May.

Campanula medium, white, 3'. June. C. gigantea, alba, 12'. July.

Climbing nasturtium, "Pearl" to 10'. Summer to frost.

Campanula alpina, 3'. June.

Zinnia, giant double, 3'. June to frost.

Louis Grecoing


Zinnia, large flowering white, 2'. June.

Love Grecoing

Portulaca, white, creeping; July to frost.

Phlox Drummondii, snow white, 18'. End of June on.

Pea, Verbenia, mammeth white, early summer on.

Making it Temper Proof

Cushions for the railing which in "when it rains" are of orange color, made of material that carry all the colors from blue to the green with touches of white. The chairs and the tables stand not merely outside, and here and there a little spots of orange and rust where the corn silk shows.

The Sleeping Porch By Day and Night

(Continued from page 35)

The day-bed, chairs and table is done to beautify it, and day time sees it hidden behind forbidding floors while the victims spend their daylight hours in the heat of closed rooms and steam heat, taking ill. Brighten up warmer beds and rooms, wondering why they are such invalids. They spend largely upon the ventilated fencing and have nothing but the beds and their protection. The floor is dull and unvarnished—everything speaks of desolation and discomfort and that revolting bareness of "health-care" unwillingly taken, forgetful that interest, joy, sunshine and beauty and the love of out-of-door walks, sports, gardening, etc., is as important as the night outdoors.

Let us dream a bit! Apple trees silhouette in fantastic shapes against the moonlit sky, the stars are so many and the Milky Way so sparkling. Crackers make their curious little hum above the strange noiseless quiet of the whole great world, that keeps one excitedly awake those first nights in the open but which lulls one into soothing sleep when the novelty has become habit

Shutters and Furniture

We look within, turning on the light and become almosted by the poverty of man's invention if our porch be bare and merely useful. That will never do! So we begin with the floor. It shall be of tile—a wonderful variation of glazed from rich lapis-lazuli to dull jade green. The house is of a delightful gray stucco with beam and trim of the jade color, the paling of our porch is jade green with accents of lapis-lazuli. Slipping through its pierced depths like those of a trolley-car, or extending up to the roof, are shutters with tilted slats whose downward slant sheds snow and everlastin summer showers. Instead of iron cots we have "day-beds" whose head and foot-pieces have the same height and outward slanting curve. These are painted with coach paint in the jade green and adorned with the lapis-lazuli striping. The canvas night cover is of the same color with a painted "day-beds" sign that convey that carry all the colors from blue to the green with touches of orange. The chairs are attached outside, and here and there a little spots of orange and rust where the corn silk shows.

A Little French Porch

The French, who so well understand outdoor life, make a charming provision against wind and rain. Iron hinged adjustable curtains to close as shutters or open for the view. One sleeping porch borrows from this idea. An attractive work of the whole house a heavy honeycomb vine shirted with lapis-lazuli and some bird chirping most of the year and keeping green perennially. It gave preference to such a solution to the wind elements. I see the open half balustrade, a heavy green sail-cloth curtain slipped along, the other a delightful curtain, allowing the breeze and the sun's warmth while closing against the storms.
These houses and thousands of others have been preserved by the Bay Stater. He puts a coat or two of "Bay State" on your house and it's safe and sound. Rain, fleet, sun and all the rest have no effect on it.

This famous coating comes in white and a variety of tints. It's sure cure for worn walls of brick, cement or stucco.

Write us. We'll send you Booklet No. 2—full of photos, facts and figures. Also a free sample of any tint you want.

WADSWORTH, HOWLAND & CO., Inc.
Paint and Varnish Makers
Boston, Mass.

New York Office
Architects' Bldg.

BAY STATE
Brick and Cement Coating

Wilson's Garden and Lawn Sprinkler

Received highest award at the New York Flower Show, Grand Central Palace, April, 1916.

The only watering system that is adjustable. Can spray on one or both sides at the same time.

Recommended by leading gardeners and florists as the greatest watering system on the market.

Made with 1½-inch pipe, 30 feet long, with 18 nozzles. Price—$10.00, f. o. b. Springfield, N. J.

Send for descriptive circular.

Wilson Products Co., 3 Greene Ave., Brooklyn, N. Y.

Summer is approaching—you are already thinking of vacation days at your residence up in the mountains, the bungalow along the seashore, or perhaps at your country home or some club house. For health and convenience you will want good, pure water, lots of it, and handy at all times. This is now possible with a Myers Hydro-Pneumatic Pump and pressure tank of some kind. Where electric current is available, the Myers Outfit shown here is, practical, simple and easy to install, and with the use of an automatic switch, requires but little attention. Other Myers Outfits include small, medium and large capacity Pumps for hand, windmill, gasoline engine or motor operation.

Don't carry water from an outside well or cistern again this year—Have your own private water plant—a Myers—with running water wherever desired. If interested, ask any Myers Dealer, write us direct for information, and last catalog.

F. E. MYERS & BRO.
ASHLAND, OHIO—350 Orange St.
Ashland Pump and Hay Tool Works

The Charm of the Old-World

Does summer find your garden ready? Will that quiet nook which stood empty last summer have its welcoming bench? Will your roses climb a dainty French trellis or twine upon a graceful arbor? These are simple touches that really work wonders.

Mathews Garden-Craft

Mathews Garden-Craft designers and craftsmen have anticipated your needs. From Old-World gardens and half-forgotten paintings, from Japanese originals and modern German examples the designers have selected and adapted the choicest designs. With painstaking skill their benchmen have reproduced these designs in selected wood. The results are best told by the 72 pages of illustrations and descriptions in the Mathews Garden-Craft Handbook. This gardener-lover's suggestion book will be gladly mailed you on receipt of 18 cents in stamps.

The Mathews Mfg. Co.,
Designers & Craftsmen
912 Williamson Bldg., Cleveland, Ohio

This is the Hallmark of Mathews Garden-Craft. It is a pledge of authenticity of design and of bench-work fashioned and joined with exacting care.
The Sleeping Porch By Day and Night
(Continued from page 68)

were black enameled reed enlivened with green. Cushions and day time covers, which were taken in at night, were chintz with every color of the flower garden and sunsets and sky as though in replica of the view—which no screening impeded, for no mosquitoes abided there and mullers and bats were regarded as friendly.

Many a supper party and many a story read aloud from the books kept in the sail-cloth-protected red book-case were enjoyed by the light of the alcohol-gas lamp—the softest, most caressing known after the candle and without the flicker. Its base was a flowery Japanese vase with vellum shade. That perfection of flooring, cork composition with plain green body in 12" squares and border of a numerous colors gave a velvety sound to each footfall.

As the Japanese Do
How we envied the two boys whose house being filled with summer guests, betook themselves to a commanding point in their farm and built themselves a house that was all sleeping-porch like many a Japanese house, only they had no sliding, paper screens nor floor sleeping-mats; they had two beds swung over the roof like hammocks with room to walk between. The sliding roof projected each side at least beyond the beds, so that no rain entered. There were camp chairs and tables that folded against the house when not in use. Simplicity reigned throughout.

The natural bark of the wood decorated the outside. Old kettles covered the beds. There enjoyed the variations of natural sunsets with their accompanying concerts, beginning far away, one little bird sound and ending in a revelry of music, and then the moon's phases. When thunder howled they dreamed of the sea around them they felt like Norse or heroes of old, till all the scenes of Nature and Art seemed revealed to them and they became poets—or were they these boys who built the pets, and was it that prompted the building?

The Final Touch to the Landscape Scheme
(Continued from page 47)

as the needful pressure is maintained in the supply pipe. As shown in one of the illustrations, it may be installed in a decorative basin and pedestal, but it is equally available for the ordinary pool. The one requirement in the pool is that it shall have a diameter of at least 4'.

A 1" supply pipe is large enough for the intermittent jet, with 5/8" for the nozzle, which latter should be located at any convenient and inconspicuous place, its force emerging from the nozzle sets up a sort of wave in the basin which, as it recedes and advances, alternately checks and releases the water issuing from the nozzle, and thereby: (1) causes it to spurt up for some distance above the surface at regular intervals. The success of this device depends on the proper relation between the size of the nozzle, the depth of submersion, and the water pressure available. Consequently, if the trial is unsatisfactory, do a little experimenting with some or all of the factors. Whatever combination finally decide upon, however, see that the water does not spout too high or else it will blow about unpleasant and strong wind.

Informal Treatments
A consideration of strictly formal, naturalistic water features leads us into a field which is only by the environments and the personal preferences of the garden but the possibilities range from the ordinary by the environments and the personal preferences of the garden owner. There are scores and hundreds of ideas; there is the use of the water as a base for planting the water garden and many students in this field are experimenting with some or all of the factors. Whatever combination finally decide upon, however, see that the water does not spout too high or else it will blow about unpleasant and strong wind.

Water-lilies alone are ample for many a pool. The old planting rules for garden flowers apply here as well; don't use too many varieties, and don't mix them indiscriminately.

The Success of this Device depends...
M A N T E L S
REPRODUCTIONS OF FINE, OLD ENGLISH AND
COLONIAL DESIGNS IN WOOD AND MARBLE.
Also
DISTINCTIVE METAL-WORK
FOR THE GARDEN
FLOWER STANDS, TABLES, LANTERNS,
GATE HINGES AND LATCHES, KNOCKERS,
FOOT SCRAPPERS AND WEATHER VANES
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walls and "CREO-DIPT" thatched roofs are pre­
sented in a new book we have recently published.
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would appreciate your telling us if you have our Book of
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We also manufacture APOLLO KEYSTONE Copper-Steel Galvanized Sheets—fireproof, durable,
unaffected for Roofing, Siding, Universal, Tissue, Sashwork and all exposed sheet metal work.
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AMERICAN SHEET AND TIN PLATE COMPANY, Frick Building, Pittsburgh, Pa.

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Many Designs
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The Trenton Pottery Co.
"Bathrooms of Character"
Make permanent your
Plumbing by installing
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French and English Period Furniture
Emporium, Porcelain China and Glazes
16 EAST FORTY-SIXTH STREET
Opposite Ritz-Carlton Hotel
The Vogue of Painted Furniture

The cabinetmakers of olden times left no finer heritage than the beautiful Painted Furniture bequeathed to posterity by the Brothers Adam.

Happily, indeed, this delightful fashion of Georgian days is witnessing a revival at this time. Exemplifying this revival is the exquisite Painted Furniture available at no prohibitive cost in these Galleries—quaint little groups for the Breakfast Porch, charming day-beds and other pieces for the Chamber and Boudoir, graceful chairs and consoles for the more formal rooms, each object decorated in harmonious restraint.

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If you have The Blue Book of Bulbs to help you plan next year's garden. Your copy is ready for you now, but unless I have your order by June 25th, the rare things may appear in your neighbor's garden—not in yours.

Chester Jay Hunt
MAYFAIR
Little Falls, N.J.

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Keep them out.

Spruce Wire does not obstruct
of your property and the size of your top wall and starting posts will certainly add to the beauty and appearance of your lawn.

In various heights—all parts heavy-
organized by hot spelter process and road—posts deep-set in concrete permanent alignment. Write for

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The Architectural Record
119 W. 40th Street, New York Reader.
Green Lawns and Grass Seed for Every State

(Continued from page 43)

The prospective lawn builder should make the characteristic of common grasses adapted to his division and their function in any particular lawn. He may then with a large degree of accuracy compose a simple and successful seed mixture.

Making the Mixture

Buy each kind of seed separately and mix them as you please. Secure your seed from a reputable seed house. It pays to purchase reclaimed seed of good quality. It is advisable to buy each variety of seed tested for purity and germination at your State experiment station. They will warrant you of any adulterants in the seed and the presence of impurities.

It is also essential that all seed be of high viability. The germination report upon your sample will give you sufficient information as to the viability of using any particular lot of seed for planting. Never buy seed one year and store it over winter in shed or in the basement. Such seed is apt to have a low germination and be worthless for planting.

Prom the must be the major portion of the mixture, as it should eventually take full possession. Your decision to use other grasses as supplementary additions must be guided by this. Grasses are used in combination for the following purposes:

The Reason for Mixtures

First, to act as a nurse crop for another variety. They may be used on a slope to prevent washing or simply to cover the ground for the sake of appearance, and to keep out weeds, while the principle variety is establishing itself. The latter is especially trials to grow slower grasses such as Kentucky blue grass. This grass takes from one to three years to establish itself and if it were not for the supplementary grasses it would be overrun by weeds before it were well started on the road to permanency.

The second use of supplementary grasses is on a lawn where a great deal of variation of soil and situation occurs. One species of grass may not grow equally well in all places. This is remedied to some extent by the sowing of several varieties in mixture so that every local bad spot will find some grass more or less adapted to it.

The third use is to reduce the cost of planting. Some seed may be too expensive to sow in large quantities and if fresh manure has been used or if there is varied some degree of variation in the weight per pound, it is best to base the seed at the bottom of page 42.

The 1897 Yearbook of the United States Department of Agriculture gives the general rule, "Owing to the great variation in the weight per bushel of grass seed, it is best to base the amount upon the weight rather than the measure, and from 50 to 60 pounds of seed of fine quality is not too much to use upon an acre of ground, or 1/2 pound to 100 square yards, poor land requiring more than fertile land."

Sowing the Seed

Early spring is the best time to sow the seed. If the lawn soil has been brought in from other sources or if manure has been used it will be of advantage to the owner to follow the ground for a season or two with a hilled crop upon it, such as corn or potatoes. This will give the large number of weed seeds in the soil an opportunity to germinate and this will greatly lessen the amount of labor that will have to be expended upon it later.

The sowing should take place during cloudy weather just preceding a rain. If the day is at all windy it is best to postpone the sowing until some quiet day when a more even distribution can be secured. To insure even sowing it is well to go over the lawn again in a direction at right angles to the first sowing and

(Continued on page 76)
How Every American Housewife Can Serve Her Country

From President Wilson’s Proclamation:

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Get it from your bookseller or from the publishers, who are

THE CENTURY CO.

353 Fourth Ave.
New York City
Green Lawns and Grass Seed for Every State

(Continued from page 17)

make another application of the seed.

The seed should be lightly raked in
and then rolled.

From the time the seed is placed in
the ground, the lawn will require
constant care for persistent attention.

Most lawns first come up and
reach a height sufficient to allow
walking upon it without crushing the
young plants into the earth. Then
they should be carefully watered over
the ground and remove all weeds that
have appeared in the grass. When
weeds were present in the seed will
appear at this time. They are easy
to eradicate when the grass is young
and sparse. Their removal also aids
the new grass plants to gain a good
foothold and make a rapid growth.

The weeds if left to grow at this time
may develop into pests that are most
difficult to eradicate.

POUNTS ON CARE

The first cuttings with the mower
should not leave the young plants too
closely clipped. Make a liberal allowance
of height for the plants and clip only enough to prevent the formation of seed.

Never let your grass go to seed, be­
tween the mowing and planting of seed.

When planning your garage
planting is essential to the perpetuation
ing seed even after the lawn is estab­
sheared out, and the average yield of under 100 bushels per

stead and scatter them upon the lawn,

sprinkling as it is usually done
upon the mower.

Do not sprinkle your lawn—water it.

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upon the mower.

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Early Italian Wall Furniture

(Continued from page 31)

As a preparation for the color and gold, a coating of gesso was first spread over the surface to be treated, and often an additional red coat was laid on before the application of gold leaf. It was an almost invariable practice to use one of these processes, and frequently both, before applying pigment or gold leaf. The practical advantages derived from this careful gesso or stucco base were a more perfect adherence and a glazing freshness of color impossible of achievement in any other way. Tempera colors were used, and even today they retain their brilliance to a remarkable degree.

The process of sgraffito work consisted of laying an unbroken coat of gold leaf or gold leaf paint over the substantial work of pigments, and a glowing freshness of color impossible of achievement in any other way. Tempera colors were used, and even today they retain their brilliance to a remarkable degree.

The credenza were about 4 to 5 feet deep and of a proportion that stood either upon a mounned plinth or upon feet. Their length varied greatly. They also varied in the amount of ornamentation; some were exceedingly ornate. Others, especially towards the end of the Century and in the 17th Century, were rusticated and simple. All were dignified, and there is no piece of old Italian furniture from which we of today may learn a more profitable lesson. Figure 6 resembles a sideboard and those who are fortunate enough to secure one now generally employ it in that capacity.

Building Up the Color

As a preparation for the color and gold, a coating of gesso was first spread over the surface to be treated, and often an additional red coat was laid on before the application of gold leaf. It was an almost invariable practice to use one of these processes, and frequently both, before applying pigment or gold leaf. The practical advantages derived from this careful gesso or stucco base were a more perfect adherence and a glazing freshness of color impossible of achievement in any other way. Tempera colors were used, and even today they retain their brilliance to a remarkable degree.

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Cupboards and Wardrobes

A first cousin to the credenza is the console cupboard, such as is shown in Figure 4. This is almost invariably of carved walnut, has a pair of doors with a drawer above them, stands on a moulded plinth and is about 3 feet high by 20 inches wide. Either singly or in pairs, these carved console cupboards or cabinets lend themselves agreeably to use in our modern interior decoration. The doors are always of a sliding kind, for which consult Figures 7 and 8. In front with a draw above them, stands either upon a moulded plinth or an apron, and frequently both, before applying pigment or gold leaf. The practical advantages derived from this careful gesso or stucco base were a more perfect adherence and a glazing freshness of color impossible of achievement in any other way. Tempera colors were used, and even today they retain their brilliance to a remarkable degree.

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A scientist’s answer

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H. D. HOUSE,
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