

OUR LILY GARDEN; PRACTICAL AIDS TO THE CULTURE OF LILIES.

EVERY person needs some form of hobby—something to employ his time when the work of day is over. The mind wants some kind of recreation from the worries of business cares. We have felt this want, but we found that when we came to consider what our hobby should be many difficulties presented themselves.

In the first place, we wanted a hobby which would really interest and instruct us; one which would tell us something which we would be glad to know. Secondly, as our lives are spent in the heart of London, we wanted some form of recreation which would prove healthful and invigorating. We can find but one amusement which fulfils this last necessity, and that is the study of natural history.

But natural history is a very large subject, and we have not the time to study all its branches. We must decide on one branch. And here the great difficulty occurred. Which branch shall we take up? Well, after discussing the various pros and cons of the subject we at length determined upon gardening. But gardening is a very hackneyed subject, and besides, it has too wide a scope. Let us decide to cultivate one family or genus of plants. But which shall it be? Let us think. We do not want to grow vegetables; we want flowers. Shall we say roses? No, we have numbers of roses already, and besides, our country garden is in the most sandy part of Surrey, the very worst soil for many kinds of roses. Well, shall we try lilies? Ah, why not? No one, we know, gives special attention to lilies. Yes; let us decide upon lilies.

You see, there are so few lilies that we can easily grow them all! Why, we only know of five or six different kinds, and are quite sure

that there cannot be very many other varieties! Fond delusion! There are not only five, nor fifty, different varieties of lilies; there are over one hundred and twenty varieties known to botanists. This was rather a damper to our enthusiasm, but on further consideration we congratulated ourselves upon this discovery. For if there are one hundred and twenty distinct varieties of lilies, and only some half-a-dozen kinds are well known, what a chance there is for us to do something original!

How splendid it would be to be able to grow lilies which not one person in a thousand has ever seen! With what pride could we show to our friends a beautiful garden filled with magnificent flowers, not one of which they had ever seen before. What interest will this spirit of adventure lend to an otherwise tame recreation! Yes; lilies are the plants for us. Yes, and we hope that we can instil into the reader an enthusiasm for growing lilies.

Most rare plants are curious rather than beautiful, and nothing palls so much as curiosity alone. But the little known lilies are beautiful; they are among the most magnificent flowers that grow. Have you ever seen a row of stately Madonna lilies in an old cottage-garden? Is it not a sight to remember throughout your life? The beauty of its pure white flower, with which the bright yellow of its anthers forms such a striking contrast, renders this lily one of the most delightful of all flowers.

And then its scent, filling the air for yards around on a still, warm evening at the end of July! Or, if later in the summer, while strolling in a large, well-kept garden in the evening of a fierce day in August, you have beheld, in a shady nook, a clump of the magnificent "Golden Lily of Japan" * standing as high as yourself, with its small leaves and crown of immense white blossoms, striped and spotted with gold, and have recognised the luscious scent exhaled from the blossoms, you will no longer wonder at the enthusiasm of the lily-grower. For many of the almost unknown lilies are quite as beautiful as these.

We were pleased to find that most of the lilies are but little known, but we were destined to find that this same fact had its own particular disadvantages. We found difficulties which were by no means trivial. Lilies will not grow of themselves. Like most plants which bear blossoms out of proportion



Lilium Giganteum.

Lilium Cordifolium.

* *Lilium Auratum.*

to their leaves, lilies are rather difficult to cultivate. If you merely stick the bulbs in the ground, the chances are that they will either be eaten by slugs or die. Again, not all the one hundred and twenty kinds of lilies want the same treatment. Coming, as they do, from every part of the northern temperate zone of the earth, some from the vast mountains of the Himalayas, others from the plains of India, and others from the woodlands of Japan or the swamps of North America, lilies will not all grow in the same soil or situation. Each wants its own particular treatment, and if this is denied it, failure must of necessity follow. But when we consider the different habits and habitats of this wonderful genus of plants, it is astonishing that, with the exception of two or three kinds, all the lilies are hardy in our English gardens. Although this family of flowers has the name amongst gardeners for being unsatisfactory and difficult to grow, we have found the reverse to be true, and that, if their few requirements are attended to, you need not fear disappointment.

Suppose this day is the 1st of November. We are going to-day to a sale of lily bulbs. What lilies shall we get? How shall we choose our bulbs? What price ought we to pay for them? Let us glance through our gardening books and see. What do these books tell us? Nothing whatever! Or rather nothing which is of any value. You will find so little information about lilies in books on gardening, and that little is so full of errors, that it is best to ignore it altogether, except in the case of lilies which are commonly cultivated. And there is no practical book upon lilies alone before the public. Elwes' *Monograph of the Genus Lilium* is a good book in its way, and the plates are excellent, but the information is much too scanty, and it is also out of date. As this book is not published by any house, is out of print, and is very rarely met with, and as its price is about £12, we may well say that this volume is impracticable. Wallace's little volume on *Lilies and Their Culture* is twenty years old. There is practically no satisfactory book about lilies, and it is to fill this blank that we write these papers. Our knowledge of the subject is mainly the result of actual experience, for we have grown eighty-seven distinct varieties of lilies, to which is added a little information obtained from books tested by ourselves, and a good many valuable hints derived from gardeners and others who have devoted some of their time to the study of these plants.

Determination will solve nearly all difficulties. We have been to the sale and bought our lilies; now how are we to grow them? In pots? In the ground? Will they grow out of doors, or must they be kept in the greenhouse? When we first took up our hobby we could not have answered these questions, but we can do so now, for we have found out these points for ourselves, and are more than satisfied with our results.

Upon arriving at the conclusion, that if we wished to cultivate lilies we must find out all about them, we got a large note-book, and therein we kept a record of the year's work. We will describe this book a little later in the year, when we will not be so busy in the garden.

For the lily grower, November is one of the busiest months in the whole year. It is during this month that most of the planting should be done, for though lily bulbs are perhaps better planted a month or two earlier than this, they are exceedingly difficult to obtain until November has begun.

If you wish to grow lilies, the first necessity is to obtain your bulbs. You can grow lilies from seed, and we will explain how to do this later, but for a beginner it is a most tedious and unsatisfactory proceeding. Whichever way you may grow lilies when you thoroughly

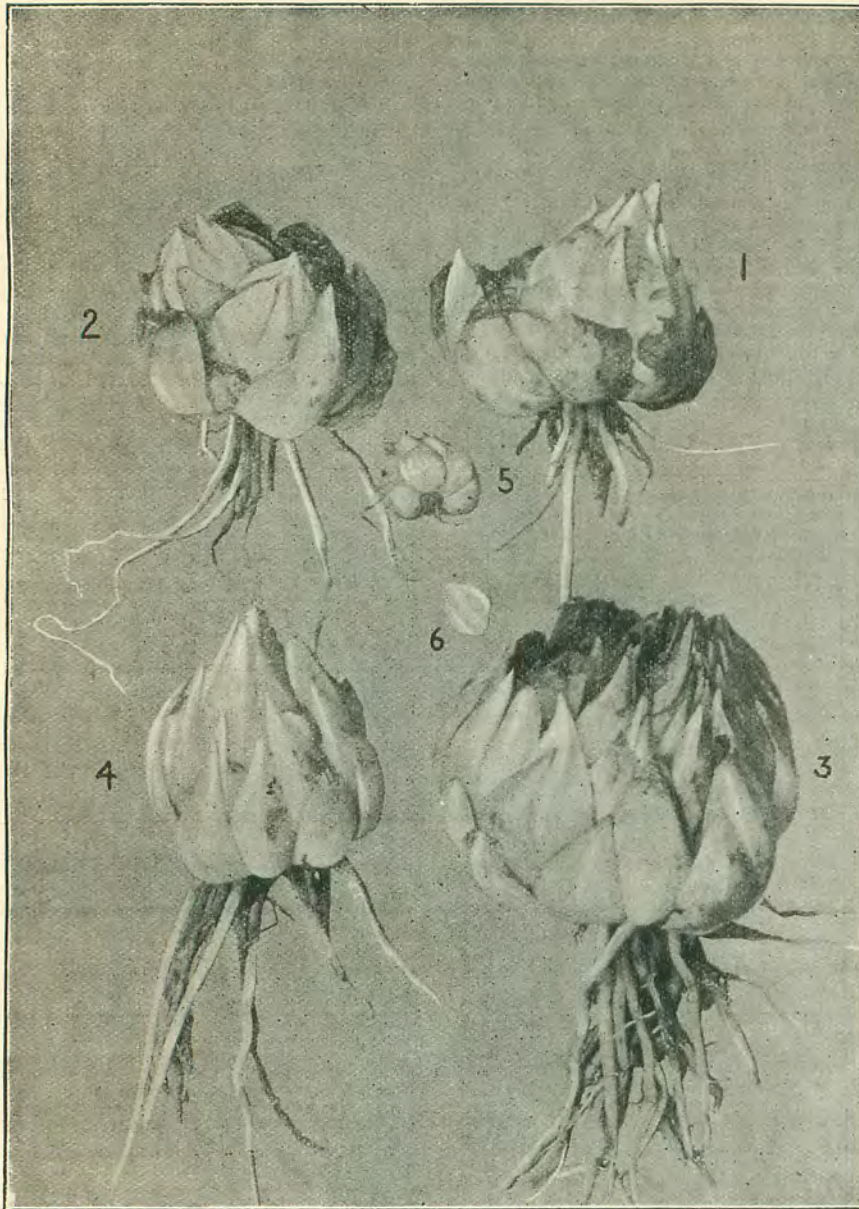
know them, commence by growing them from bulbs only. Well, we must get these bulbs, and how are we to obtain them? We can either go to a seedsman and buy what we choose, or we can obtain our lilies from public auction-rooms. Both methods have their advantages, and both have their disadvantages. If you go to the seedsman you can buy all your bulbs at once, you can make your choice, and you need buy but one lily of each species. But you will have to pay high, often fancy prices for them, and you can never be sure that the bulbs are fresh. On the other hand, in the auction-room you usually must get a large number of one variety, and you cannot obtain all kinds at the same auction. But you will have but a small price to pay, in fact, only the current market price of the day. You will usually find that the bulbs are fresh, and when you know how to choose bulbs you will be able to secure first-rate articles for your money.

The next question which you will ask is, "How much ought to be paid for the bulbs?" The bulbs vary much in price from several causes. Of course the price of one kind of lily is very different from that of another kind. For instance, bulbs of *Lilium Davuricum* can be purchased at an auction for half-a-crown a dozen, whereas you will have to pay about a sovereign for a moderately good bulb of *Lilium Dalhousii*. Again, the bulbs vary in price according to their size and condition; *Lilium Auratum* bulbs cost from fourpence to half-a-crown each. The time of year also greatly influences the price of lily bulbs. Last May we bought twenty-five bulbs of *Lilium Auratum* for a shilling. Six months previous, these same bulbs would have fetched about twenty-five shillings. Then the price varies much in different years owing to the success of the growers in Holland or Japan. For the



LILY BULBS. (To scale $\frac{1}{4}$ of original diameter.)

1. *Lilium Umbellatum*. 2. *Lilium Auratum* (small but good bulb). 3. Bulb and rhizome of *Lilium Canadense*. 4. Bulb of *Lilium Wallacei*. 5. Bulb of *Lilium Roetzii*. 6. Bulb of *Lilium Hansonii*. 7. Bulb of *Lilium Humboldtii*.



BULBS OF *Lilium Candidum* OR MADONNA LILY. (To scale $\frac{1}{4}$ of original diameter.)

1. Good sound bulb showing one crown. 2. Bulb showing two crowns. 3. Mammoth bulb. 4. Young bulb of two years' growth. 5 and 6. Bulblets removed from No. 1.

(From photographs of fresh bulbs exhumed in August. The roots have been left entire.)

guidance of our reader we will give some average prices for a few lilies. *Lilium Brownii*, ten for nine shillings. *Lilium Longiflorum* (several varieties) from two to five shillings for ten. *Lilium Auratum* about four shillings for ten. *Lilium Giganteum*, nine shillings for a single bulb. *Lilium Tigrinum*, *Candidum*, *Calcedonicum*, *Pyrenaicum*, *Speciosum*, and *Elegans*, from four to six shillings a dozen.

We said that lily bulbs are very much cheaper at the end of the season than they are in October or November, and some persons might be tempted to put off buying their bulbs till March or April. But this is a great mistake, for very few of such bulbs ever live to flower.

The greatest difficulty in lily culture is to know how to choose the bulbs. There are so many ways in which the unwary may be "done," that many persons give up growing

lilies from the constant disappointment which results from their ignorance of how to choose good, sound, flowering bulbs.

Lily bulbs vary a good deal in appearance and size, but there are certain qualities by which the value of any bulb can be more or less accurately determined. All the bulbs should be of moderate size for the species; very firm and compact; fresh and not withered; not broken; showing one or two points from which the shoot will appear (they should not show the flower spike itself); well ripened; not in any way attacked by vermin, or spotted by mildew, and if possible home grown.

We said lily bulbs should be of moderate size. No point is more misleading or less important than this question of size. Mere size goes for nothing! Some of the "mammoth" bulbs of *auratum*, so much advertised by nurserymen, often send up a miserable

spike of flower-buds which wither ere the flowers open. We think that we know what is the cause of so many large bulbs going wrong. If the buds of a lily be cut off, the bulb increases enormously in size, and next year sends up a very superior shoot bearing many fine blossoms. Lily growers often cut off the flower buds from their lilies so as to improve the bulbs. These large bulbs are excellent. But the bulbs greatly increase in size if the plant does not flower for a year. Even if the whole plant dies from drought (a very common cause of failure with lilies), or if the roots are destroyed by vermin or by disease, the bulbs often become enormous. These large bulbs rarely do well, as the disease which killed their shoots the first year will probably do so again the second year.

Good bulbs are very firm and compact. This is much more important than that they should be large. We would rather have a small, compact, but heavy bulb than a light bulb with wide open scales, even though it be twice the size of the smaller bulb.

Always choose bulbs which are fresh and plump. Bulbs which have been kept one or two years out of the ground very rarely blossom or, indeed, come up at all. Such bulbs may be recognised by the outside scales being dry and withered. Always choose bulbs which are entire, if you can. But it is not very important that the bulbs should be perfect. We have done very well with bulbs which have lost the majority of their outer scales. Beware of purchasing bulbs which have begun to grow. Bulbs must be planted in the dormant condition. If you plant a bulb which has already thrown up an inch or two of flower-spike, the chances are that it will form no root, and that the stem will wither ere the flowering period arrives.

Unfortunately we have no way of telling whether bulbs are thoroughly ripened. Many bulbs, especially those of *Lilium Auratum*, come over from Japan, which, though they look perfectly sound and healthy, never live to flower. This is due in part to the bulbs having been sent from abroad in an immature state. Foreign bulbs purchased in July, August or September, must either be immature, or else rubbish left over from last year.

Examine the outer scales of the bulbs for little worms or mildew spots, and do not purchase any which show either of these parasites.

We are always told that lilies give greater satisfaction if grown from bulbs which have been established in England for some years. You should, therefore, choose these in place of those imported from Japan or Holland. English bulbs are, however, a little dearer than imported bulbs.

There is a popular delusion that you can grow lilies in sand. You cannot do so. All lilies require a rich soil; many require peat, and some excel only when grown in earth strongly enriched with manure.

The question of soil for lilies is an important one, and, as it is in general overlooked, we will carefully describe in tabular form the soils suitable for various lilies. For this purpose we will divide lilies into various classes dependent upon what soil they require.

Class 1.—Lilies which will grow in any good soil: *Tigrinum*, *Bulbiferum*, *Croceum*, *Davuricum*, *Elegans*, *Hansonii*, *Henryi*, etc.

Class 2.—Lilies which require a moderately light soil with a slight admixture of peat and leaf mould: *Auratum*, *Speciosum*, *Longiflorum*, *Krameri*, *Brownii*, *Japonicum odoratum*, etc.

Class 3.—Lilies which want a heavy loam, well enriched and of good depth: *Cordifolium*, *Wallichianum*, *Candidum*, *Washingtonianum*, *Humboldtii*, *Martagon*, *Testaceum*, *Calcedonicum*, etc.

Class 4.—Lilies which require a large admixture of peat and leaf mould with plenty of sharp sand: *Canadense*, *Superbum*, *Pardalinum*, *Roezlii*, *Leichtlini*, *Philadelphicum*, etc.

Class 5.—Lilies that want a very rich soil with large quantities of well rotted manure and leaf mould of great depth: *Giganteum*, *Monadelphum*.

As a matter of fact many lilies will grow in two or three different kinds of soil. We have only given the form of culture by which we have ourselves obtained, or friends have obtained, the best results.

Position is of first importance in the cultivation of lilies. All kinds like partial shade, but not a position overhung with trees. It is best to plant them in a place where they can get the full sun for two or three hours daily, but where they are sheltered from the sun at midday. The position chosen should be well drained, preferably on the slope of a hill, and protected from high winds which can do very serious damage to plants which grow to such a height as these.

The best position in which to plant lilies is a bed devoted to azaleas, rhododendrons, or other shrubs. These protect the bulbs from severe frost in winter and shelter the young shoots from the high winds in spring. Moreover the soil which suits rhododendrons—a peaty leaf mould—is also an admirable soil for many lilies.

We planted a number of lily bulbs among beds of pinks last year, thinking that this situation would afford all that was required. But, alas! we had forgotten an enemy, of which you will hear more later, which has proved the very worst of our foes—the slugs. Oh, those slugs! We go out on a warm morning in March and see five hundred thick, healthy, green shoots, looking like tender asparagus. We have a slight rain in the night and go out next morning to see how our lilies are faring. During the night the slugs have eaten the tops off all those that were most promising!

The swamp lilies such as *L. Canadense*, *L. Pardalinum*, and *L. Superbum*, are best grown in damp situations, as these lilies require plenty of moisture. The dry bank of a stream suits them admirably.

Let us now proceed with the planting, which should be done at once. Take the bulb you are going to plant, examine it carefully and pull off any diseased or mildewy scale. Wash it well in lime water to destroy any hidden enemy and leave it a few hours to dry.

While the bulb is drying dig a hole, which must vary in size according to the size of the bulb, in which to plant your bulb. Suppose *Lilium Auratum* be the kind that you are planting. Dig the hole two feet deep. Place an inch or two of broken crocks in the hole, and fill half full with the compost which the species requires.

Take the bulb and dust it over with powdered charcoal, which prevents the development of mildew. Place it in the hole

prepared with a thin layer of peat (preferably burnt or previously strongly heated to kill all insects, etc., which it may have contained) below and around it and with a good handful of sharp river sand. Then fill up with the soil suitable to the species.

Our work for November is done, and we return to town to tell our friends of our new venture. We meet with nothing but discouragement. One says, "Oh, you cannot grow lilies satisfactorily!" Another tells us that she has never yet succeeded in growing these troublesome plants. One gardener tells us that lilies are the most difficult of all plants to grow. Another gravely informs us that though some lilies will grow in pots, only one or two kinds will do anything in the ground. But next day we read in a gardening paper that lilies cannot be grown in pots, but some will do well in the open border! What are we to believe? Shall we be successful, or are we doomed to disappointment?

We have gone through the year, having grown lilies both in the ground and in pots. Several hundreds were planted in the ground, and one hundred and three (eighty-seven varieties) in pots. Of the latter we have lost four plants. Twenty-two have not flowered but will flower another year; so that we are highly delighted with our success. To see the constant succession of the loveliest blooms filled our heart day after day with delight, and we trust many of our readers will receive for themselves pleasure as innocent and great.

(To be continued.)

ANSWERS TO CORRESPONDENTS.

STUDY AND STUDIO.

A BOY READER.—1. Candidates for appointments as Engineer Students in Her Majesty's Navy must not be less than fourteen or more than seventeen years of age on the first day of May in the year in which they are examined. Their parents or guardians must pay £40 a year during their training, which may in certain cases be reduced to £25. The pay begins at once at 1s. a week. You can get full particulars by writing to the "Admiralty," London, when papers will be sent you.—2. Barnard Smith's arithmetic is excellent. You can procure it either with answers to the problems or without at a low price. If you want to prepare for any special examination you had better use the prescribed handbooks.

S. T. P. Q.—1. We find it a little difficult to select one play exactly fulfilling all the conditions you describe. *Home Plays for Ladies* (French, 8s. Strand), is published in parts containing three or four plays each, price 1s. each part. *Scenes from the Novels of Jane Austen*, arranged by Mrs. Dawson, published at 2s. 6d., by J. M. Dent & Co., might suit you; or *Fairy Tale Plays and How to Act them*, by Mrs. Hugh Bell (Longmans & Co.). We should obtain French's Catalogue in the first instance and send for one or two of the "parts" mentioned.—2. Your writing is very clear. We think it would be better if the loops to your l's, d's, y's, etc., were not so black, and if you avoided the inclination to make your letters pointed.

REX.—1. There are a great many good French dictionaries, published at prices varying from 21s. to 1s. 6d. As you do not name any sum we may mention Feller's Pocket Dictionary, or Cassell's Dictionary; net cost of either, 2s. 7½d. Do not rely on any dictionary for the proper pronunciation of French.—2. Your writing is very well formed. There is not quite enough freedom about it; it looks too "copperplate" and stiff. But we do not advise you to introduce flourishes. Practice will improve it with regard to the point we criticize.

MARITA (an Australian admirer).—1. The best handbook to help you in composition is *How to Write Clearly*, by Dr. Abbott; but in order to store your mind with beautiful ideas, you should read the best of all literature, poetry and prose,—Shakespeare, Scott, Ruskin, and so forth.—2. We like your writing. It seems to us characteristic, and as you grow older it will more and more take your own impress. A good distinct sort of handwriting at seventeen is far better than an indefinite scrawl, and makes a more satisfactory foundation for what comes afterwards.

A GRATEFUL READER, A. L. B.—Would you not like to take a situation in a very good boarding school, and receive painting lessons from the master who teaches there in whole or part return for your services? The only way to hear of such a situation is to advertise in some London paper, or apply to a registry office, saying exactly what you want. You might find a situation on the Continent, entering a family (for instance in Dresden) to teach English, and studying under some artist. There is a Governesses' Home at Dresden, and the Lady Principal might give you some hints. Address, Fr. Hartung, Lehrerinnen Heim, Cranach Strasse, 11, Dresden. Again, you might give some household assistance in return for a home in London, and so attend either the Academy Schools or one of the numerous Metropolitan District Schools of Art. Advertising and private inquiry are the only means of finding what you want.

OTHELLO.—You can obtain Milton's *Paradise Lost* (abridged) for one penny, in the "Masterpiece Library," but we advise you to spend about 1s. 6d., and to get such an edition as that in the Temple Classics (J. M. Dent & Co., London). We are glad you intend to read it.

IVANHOE.—1. Are you not thinking of Bulwer Lytton's historical play, "Richelieu"? You can obtain an acting edition for 6d.—2. October 12th, 1875, was a Tuesday. Two questions are our limit.

VEILCHEN.—Mudie's Library, New Oxford Street, London, supplies a large number of the best foreign books, and as boxes are sent to the country we suggest that you should write there for particulars.

MEDICAL.

CORNFLOWER.—Starch, being one of the chief foods of man, cannot be injurious to the blood. If taken in excess it has a tendency to make you fat. It is most undesirable to get into the habit of sucking alum, for this drug has an exceedingly injurious effect upon the stomach and bowels. Chalk will cause indigestion and constipation. This habit of taking chalk, starch, etc., is due to what is sometimes called depraved appetite, but it is most commonly merely a silly habit, easily broken by a little determination.

ANXIOUS.—You certainly suffer from some trouble with your lungs and need further treatment. You had far better see a skilled physician and have your chest thoroughly overhauled. From your letter, we think that you would obtain great advantage from spending the winters abroad, if you can do so. But do nothing until your chest has been examined.

E. H.—That we do not write for London girls only is abundantly proved by this correspondence column. We have this morning answered letters from all of the five continents. In fact, very few of our medical correspondents are Londoners, which is not surprising, for medical advice is so easy to obtain in the great Capital. Most of our correspondents live in out-of-the-way places—very many in the Australian bush or North American prairies. Of course, the science of medicine is much the same all over the world, and the advice that we give to a person in London is usually applicable to everyone suffering from the same affection in Europe, Asia, Africa or America.

BIVALE.—The question of the causation of typhoid fever by oysters created a great sensation last autumn, and it will doubtless do so again this year. Typhoid is infinitely more common in autumn than at any other season. It is caused by a definite well-known microbe, and it never occurs without the presence of this organism. The question of oysters conveying typhoid, therefore, depends upon the answer to the query, "Can the bacillus of typhoid live in the oyster?" It appears to be an undoubted fact that the living microbe can exist in the living oyster. Some men tried to prove that the organisms only occurred in oysters that were bad; but this was proved to be incorrect. Having decided that oysters can harbour the bacillus, the next question is—"How does the oyster obtain this microbe?" The answer to this is easy. The bacilli can only come from a patient with the disease, and so the oysters must obtain the poison from sewage. As far as we know oysters which are unable to feed on sewage matter cannot possibly obtain the typhoid poison. By no means everybody who swallows typhoid bacilli gets the fever. Typhoid is a distinctly infectious disease, but is rarely, if ever, caught from person to person as scarlet fever and small-pox are. The disease invariably results from taking food contaminated with sewage. Water is the chief vehicle by which the disease is spread, and therefore during epidemics of typhoid all water that is intended for drinking purposes should be boiled. Milk, watercress, oysters, salads, etc., also convey the disease. Milk is a common method of spreading typhoid, either by the milk being diluted with water, or else the cans having been carelessly washed out. Pure milk, absolutely free from water, cannot convey typhoid. Typhoid fever rarely attacks the same individual twice.

EFFIE.—You can do nothing to alter the colour of your eye. It is not at all uncommon for the eyes to be of different colours, but nothing can be done to cure it.

OUR LILY GARDEN.

PRACTICAL AIDS TO THE CULTURE OF LILIES.

By CHARLES PETERS.



FOR the last three months cut blossoms of *Lilium Speciosum* have decorated our table in the centre of London, and have afforded our friends and us real delight, creating subject for discussion at the dinner-table such as we have never known in connection with any other cut flowers.

Perhaps this has arisen from the fact that the floral decorations consisted of flowers of one botanical group only, making a truly consistent nosegay, and creating from its very uniqueness fit subject for special questionings and interest. Of course in the group there were several colours. The *Speciosum Album* and the varieties of white, the *Speciosum Roseum* with its varieties of lovely rose-colour, and finally the deep and rich *Speciosum Melpomene*. Nothing in the way of table decoration could be more aesthetic and cheerful-looking than an arrangement of such blossoms, in which we find real white mingled with a lovely purple red, and with nothing but the right gradations of colour between.

In the days of old it was the custom to group flowers of every conceivable colour—reds, blues, pinks, yellow, and others; but now we know better, two colours or three being the most effective scheme for table or bouquet effect, and in all our experience we have never found any general appearance more pleasing than that of our group of *Lilium Speciosum*.

One of the greatest testimonies to the value of these flowers is that the buds will develop and open into blossoms of their natural size while in water in a close room of a London square, and another reason for their value is that they last two or three weeks if attended to about every other day, that is, longer than any other cut flower of our cultivation.

A month ago we took up to town a bunch of *Lilium Speciosum* from our little country garden to garnish the dinner-table of a well-

known doctor on the day of his golden wedding. There were, we were told, many other groups of flowers sent by friends for such an interesting occasion, but although many were from hot-houses, and some were valuable orchids, the group of *Lilium Speciosum*, so easy and so inexpensive to rear, had the place of honour, was admired the most, and lasted the longest number of days.

But we must not forget to mention an incident which happened to us while carrying this particular bunch through a City street from the railway terminus. We became conscious of a footstep close behind us, and felt that someone was keeping close to the flowers as they dangled at our side; but walking on unheeding, we presently relaxed our speed, when the follower made a semi-circle round the bouquet, watching it greedily until he faced it and us; then he turned and hastily disappeared, but not before we recognised in the London-dressed man a young and handsome Japanese! The flowers came from his distant land, and maybe reminded him of a home, a mother, or a sweetheart, and all so far away. We have ever since been ashamed of ourselves for not offering him one of the blossoms for a buttonhole.

The discouraging news given at the end of our first chapter led us to think: "Lilies will not grow in pots, but some kinds do fairly well in the open." "Lilies though suitable for pot plants are unsatisfactory for the flower-bed." Surely it is impossible to reconcile these two statements. Either one or both opinions must be incorrect. We must settle this point, and we can easily do so by growing lilies, both in pots and in the open ground.

We have before told you that we have ourselves grown eighty-seven distinct kinds of lilies. We have grown them in pots and in the open. We have obtained great satisfaction from both.

Few flowers are easier to grow in pots than lilies, and as they form probably the finest of all pot plants the culture of lilies in pots deserves more attention than it has heretofore received.

There are two ways of potting lilies, each of which has its advantages and uses, so we will describe both methods.

The first method is the simplest. Take a large flower-pot. No lily should be grown in a pot less than six inches in diameter. Of course the pot must vary in size with the size of the plant it has to contain. *Lilium Concolor* and *Elegans* grow well in six-inch pots; *L. Auratum* or *Speciosum* should have an eight or ten-inch pot, while *L. Giganteum* will require the largest sized pot procurable or a small tub.

One bulb only should be placed in each pot if absolutely perfect plants are desired; but very pretty effects can be obtained by growing two or three bulbs in a large pot or tub.

See that the pot is perfectly clean. Place about an inch depth of crocks, stones, etc., at the bottom, then put three inches of the prepared soil in the pot, and over this place a thin layer of peat, mixed with sharp sand and pieces of charcoal. Take the bulb, examine it, remove diseased scales and wash it in lime water, as you did in the case of the lilies you planted out last month. Dust it over with powdered charcoal and place it in the pot surrounded with sharp sand and peat. Then fill up the pot with the prepared soil.*

* In our last number we will give a tabulated account of the various prepared soils necessary for each species both when grown in pots and in the open ground.

In potting lilies, deep potting is to be aimed at. No bulb should be placed at a less depth than four inches below the surface. Large bulbs require to be six, eight, or even twelve inches below the surface of the soil. The reason for this deep potting is that the flower stems send out roots above the bulb, and it is essential that these roots should be below the surface of the soil.

The second method of potting bulbs is similar in all respects to the above, except that the pots are not filled up at once. When you have placed the bulb in the pot you add a little soil, but leave the top of the bulb exposed. When growth commences, which will be shown by the appearance of roots and flower stems, you fill up the pots with the prepared soil.

Established bulbs and bulbs of the hardier lilies are best potted by the former method, but for bulbs received from abroad, especially those of the more tender species, the second method of potting is to be preferred.

Now that you have potted your lilies the question arises, Where shall you keep the pots? For the majority of lilies the best place is either a garden or a balcony. Lilies are too tall growing for window plants and it is totally unnecessary to coddle them up in rooms.

There are some lilies which will not come to perfection out of doors in our uncertain climate, except in very favourable seasons. These kinds, many of them among the finest of the tribe, will, however, grow admirably in a conservatory or room.

If lilies are grown in rooms, they should be put out of doors every fine day, as they require sun to mature their flowers.

The lilies which are not sufficiently hardy for the open air are, *Wallichianum*, *Harrisii*, *Philippinense*, *Neilgherrense*, *Formosanum*, *Nepaulense*, and *Catesbaei*. (With the exception of *Neilgherrense*, all these lilies will grow well out of doors in our southern counties in exceptionally fine seasons.)

November is over; our lilies are planted. How are we to treat them before the flowering season arrives?

Lilies out in the ground require but very little attention until the shoots appear. In severe winters *Lilium Giganteum*, *Cordifolium*, *Speciosum*, and one or two others, should be protected by bracken or other litter; but lilies stand the frost remarkably well, and rarely suffer from this cause before the flower shoots appear. Lilies grow all through the winter, forming roots. *Lilium Candidum* puts up an autumn growth of leaves, and occasionally other lilies do the same. When the shoots appear more attention is required. Those kinds which send up shoots in January, February, or March may need slight protection, such as a hand light, from frosts. As the season advances you must guard against two great enemies—slugs and drought. A dry April, not at all an unusual occurrence, will often do great damage in the lily garden.

During growth lilies require a very large amount of water. In a dry season it is a good plan to water them every day. An insufficient supply of water is one of the commonest causes of failure with lilies.

With lilies in pots only an occasional watering will be required before the shoots appear. As soon as this stage is reached they should be watered daily until the flower-buds appear.

If only we could guard against slugs! These are the greatest of all pests to the lily grower, and though there are many infallible preventives against slugs used and sold, not one of them answers its purpose. Soot is usually regarded as the best agent to use to prevent slugs from eating the tender spring growth of lilies. The soot is thickly dusted round the plant, and as slugs very much dislike any powder which adheres to their slimy bodies, they will not venture across the sooty track. No, they will not cross the soot—at least not until the soot gets damp, as it does after the first heavy dew or shower of rain. As soon as the soot gets wet it is no longer a deterrent to slugs. Lime is also recommended to be used in the same way as soot; but it, too, fails to serve its purpose when it has once become damp.

Then have we no way to keep down the ravages of slugs? Yes!—we have one way, a very excellent way, but a most tedious and

unpleasant one to carry out. The only effective way of thwarting the ravages of the slugs is to pick off by hand the culprits, while they are gorging themselves in the evening.

Go out as soon as the sun is set with a lantern and a gallipot filled with strong brine, and visit each lily-shoot in succession. You will see the slugs congregated on your pots by hundreds, from the little tiny fellow of one-quarter of an inch long, who is eating your best lilies in order that he may grow into a larger and more capacious enemy, to the slimy monster of six inches long, who is attempting to fill his vast maw with lilies of great value. All are there, all devouring your best specimens, as though you were their most hated enemy—as indeed you will be if you want your garden to look gay. These slugs are not, as one would suppose, dirty feeders, but they are gourmands of the deepest dye. They are not content with the outside or decaying leaves—not they—they

want the very tenderest tops of the young shoots! When the lilies are about a foot high, they will not eat the leaves at the base, they must needs crawl up the stem to feed on the tender growing top of the plants. But now you can have your revenge. Pick off with your fingers* every slug you can see, be he little or great, and put him into the brine. The brine kills and dissolves them in a very short time.

Some gardeners place cabbage-leaves, etc., on the ground as "traps" for slugs, but alas! the tender lily shoot is far more tickling to the palate of a slug than any cabbage-leaf!

The damage which slugs can do to lilies is incredible, and unless these pests are summarily dealt with, every lily in a garden may be decapitated ere the summer commences. One reason why lilies in pots do so well is that it is not so easy for the slug to get at them.

The lilies are singularly exempt from the ravages of animals other than slugs. The aphides or green flies are, however, often very troublesome. We will refer to this pest when talking of the treatment of lilies just before and during the flowering stage.

The leaves of some lilies are sometimes eaten by the larvæ of the Lily Beetle (*Crioceris Merdigeræ*), but as this insect is a great rarity in England, we will not describe it.

There is neither animal nor plant which is exempt from disease, and the lily has inherited this universal tendency to disease. There are not many common diseases of lilies, and very few even of these do much damage to more than one or two kinds. But some of these diseases give great trouble to the lily grower, and often tax his patience to the utmost.

Some lilies are very prone to a form of mildew which, beginning as a minute spot of discoloration on one leaf, eventually destroys the whole of the foliage and flower-buds, and turns a beautiful, well-grown, apparently healthy lily into a brown slimy stick.

This disease usually begins to show itself about the middle of May. A small grayish transparent spot appears on one leaf, and in about a month it has spread and completely destroyed the plant. Not all lilies suffer from this disease, and of those which are liable to be attacked, not all suffer to the same extent. Of all lilies, *Lilium Candidum* is the most frequently attacked, and in this lily the disease usually destroys the deciduous portion of the plant altogether. The other members of the Eulirion group of lilies: *L. Brownei*, *Wallichianum*, *Washingtonianum*, etc., are also frequently attacked, but are rarely much injured by it. It also occurs on *L. Speciosum*, *L. Superbum*, *L. Canadense*, and, indeed, most kinds of lily; but in these it rarely attacks the flower-head and does not, in our experience, do much harm. We have never seen the disease in *L. Auratum*, *L. Tigrinum*, or *L. Longiflorum*.

Of the cause of this calamity we know but little, but we rather think that it is often due to growing lilies in soils which are too poor or are exhausted. This, indeed, seems highly probable in the case of *Lilium Candidum*, the most frequently attacked of all lilies, for it is grown by most people without any care being given to it, and made to shift in a dry sandy garden exposed to the full blaze of the sun and scarcely ever watered. Where lilies can have a good rich soil, with plenty of water, the disease is very uncommon.

Once established, this disease is very difficult to cure. Syringing with solution of sulphurated potash, or of sulphur boiled in lime



The stem and bulb of *L. Auratum* showing the relative quantity of roots given off above and below the bulb.

(From a photograph. Reduced to a quarter of original diameter.)

* Some persons very naturally object to taking hold of such slimy customers with their hands, but their enthusiasm for their plants will soon overcome such scruples. It is very tedious work to remove these pests with sticks or forceps.

water, will sometimes stop it, but too frequently the disease runs its course to the bitter end. If you uproot the plant and examine its bulb and root, you will find both quite healthy-looking.

There is another disease which, though not so devastating to the lily garden as the last, is yet very exasperating and even more fatal in its results.

Here is a beautiful strong growing *Lilium Auratum*, eight feet high, just showing its flower buds, and showing a large series of beautiful glossy leaves. Next week we notice that the lower two or three leaves are yellow and withered. Every day more and more leaves die, and eventually what was once a beautiful plant is now a naked stalk with a girdle of fallen yellow leaves and buds around it. Dig up the plant and examine its bulb and roots. The base of the bulb is gone! And its place is taken by a mass of evil-smelling pulp. Swarms of little thread-like worms will be seen twisting about all over the diseased portion. It seems natural to think that these worms are the cause of the evil, but we do not think that this is so. The worms are the result, not the cause of the disease.

Lilium Auratum and *L. Speciosum* are the two lilies which mainly suffer from this disease, but other kinds are occasionally attacked. When once manifest, no treatment has any effect. Take up the plant

from this disease. Of one hundred and six lilies which we had in pots this year we have only lost one from this cause.

Yet another disease to irritate and discourage the lily grower! Look at this *Lilium Humboldtii*. Its leaves are well developed, and it already shows five flower-buds, but on closer observation you will see that the stalks which support these buds are black and withered. Or



Lilium Hookeri.

as soon as you are certain that this disease has started, thoroughly wash the bulb in water, and let it soak in lime water for three days. Then thickly cover with powdered charcoal, and replant. If you do this the bulb may recover, and send up a good spike of blossoms next year. If you have bought good bulbs, and have planted them as we directed last month, you need not fear that you will lose many plants



Lilium Roseum.

see this *L. Martagon*, which shows a head of twenty blossoms. Touch these blossoms, or gently shake the stem, and five or six buds drop off! These buds, you will observe, have a black rotten base!

This disease is caused by three or four causes. If the bulbs have been planted in a poor or dry soil, or if the spot is unsuitable, you will lose many of your lilies from this cause. Bulbs which have not been properly ripened often disappoint you in this way. Again, if you delay planting your bulbs till February or March, you must expect to be treated in this way. But the most common cause of all is the presence of mildew among the scales. You can guard against this by paying attention to the methods described in our last number.

There are three other ways by which lilies may disappoint you. They may either not come up at all, or they may come out but fail to produce flowers, or they produce flowers which are damaged and are deformed or discoloured.

The first of these untoward results is usually due to the bulb having rotted in the ground. You can do nothing for this but bear the

loss philosophically. You should remember, however, that some lilies, especially *Lilium Longiflorum*, often lie dormant for a year, but come up the next year better than ever.

No lily will flower every year, and some lilies require a year or two to get accustomed to a new home. These will not flower the first year. As a rule, when a bulb does not send up a flowering shoot, the bulb itself grows to a very large size.

It is most annoying to see a lily which promises well belie itself and produce either a deformed or a cankered flower. The cause of the first is almost always green fly. To this we will refer later. The cause of the latter is either too poor soil, abuse of liquid manure, or continuous rain just before the flowers open.

Lilies like the rain. If the weather were arranged to please a lily, it would rain every day from the time when the shoot appears till the flowering period has arrived. But lilies

object to rain from the time that the buds begin to change from green to white, or whatever colour the bud will eventually become, until the flower is fully opened. It is here that lilies grown in pots have the pull over those grown in the open ground, for if a spell of rainy weather occurs at the wrong time, the pots can be taken indoors or placed under shelter, which is impossible in the case of lilies grown in the open. But something can be done for the lilies which are exposed to the weather. The buds can either be wrapped round with oiled paper, or else they can be sheltered by an old umbrella tied to a stick. By this latter means we have saved many valuable lilies from disaster.

Lilies vary much in their powers of enduring excessive rain at the flowering period. *Lilium Auratum*, *Candidum*, and some others are nearly always ruined when they happen to flower in a spell of rainy weather. *Lilium Gigantum*,

Concolor, *Tigrinum*, and many others stand rain at their flowering time with ease.

Do not be frightened at this chapter of possible calamities. Although it comes so early in our series, do not let it damp your enthusiasm. These diseases have to be described, and we have described them, but though they are, unfortunately, far from uncommon, if you grow lilies carefully you will not lose many from any of these causes. We have grown many hundred lilies, we have seen all these adverse conditions, but they have not damped our ardour. We lose a few lilies every season, but then there are plenty which give us full satisfaction; and lilies are such gorgeous plants! If you were to lose half of your stock, and the other half were satisfactory, you would not complain at the result, for the good half would delight you and your friends as no other flowers would.

(To be continued.)

THREE GIRL-CHUMS, AND THEIR LIFE IN LONDON ROOMS.

By FLORENCE SOPHIE DAVSON.

CHAPTER II.

THE PLAN OF OPERATIONS.

As we have seen, the incomes of our three friends amounted altogether to £270 a year. In the winter months the accounts for the rent of the rooms, coal, gas, candles, and similar expenses came to £1 3s. 6d. each week, as the following accounts set forth—

	£	s.	d.
Rent of rooms	0	12	0
Abigail's wages	0	2	6
Gas-stove	0	1	0
Oil for lamp	0	0	4
Candles (½ lb. at 6d. a lb.)	0	0	3
Coals for sitting-room	0	1	10
Washing-bills (personal)	0	3	0
Washing-bills (house linen)	0	2	7
	£1	3	6

For about a month in the year the three were away, Marion in her own home in Nottinghamshire, and the Orlingburys staying with different friends and relations. Ada Orlingbury had only three weeks holiday in the summer, and not quite a week at Christmas, but was busy with her type-writing all the rest of the year. Jane had a far longer rest from her cookery classes than Ada from her work, and Marion had longer holidays than either. When all were away they paid rent for their rooms just the same, but, of course, had no other household expenses. Marion was a very economical housekeeper and understood how to keep down expenses as low as possible, whilst still having everything comfortable. We must admit that very acceptable "helps" arrived sometimes from their friends in the country. It might be a large box of eggs, or a "hand" of pork, or perhaps a bag of apples, but this did not happen very often. Once a week they had a dinner without meat, but this was no hardship to any of the three, for all liked vegetables, fruit and fish, and this arrangement made things much easier for the housekeeper.

Marion had quite grasped the fact that the best way to keep down the bills was to economise with the butcher's bill, for meat is the most expensive item of all. They had soup very often, as nice soup can be made for so little. They indulged largely in savoury dishes of macaroni and rice, some recipes for

which we shall give in the course of this account of the girl-chums and their doings.

Once a week, on Wednesday evenings, they went to a choral society to which they belonged, and, as they had to start at seven o'clock, instead of sitting down to dinner at that hour, they found it more convenient to have a sort of "high tea" on that evening and to have hot milk and cake or porridge when they came back.

We must not forget to say that on alternate mornings they had porridge for breakfast, which Marion cooked the day before in a double saucepan, whilst she was seeing to her other cookery and which was warmed up in the morning. They generally supplemented this with scones, which Jane, with her superior knowledge of food-stuffs, pronounced to be very nourishing. On Sundays they dined at two o'clock. For this meal they often had meat pie, as that could be made the day before and heated, or eaten cold, as they preferred, or they chose something that did not take long to cook, such as cutlets.

Marion found her path made easy by some of the tradesmen with whom she dealt, who were very accommodating to her wishes, and never in the least resented her subtle knowledge of ways and means, as they undoubtedly did in the case of some other of their customers' housekeepers of many years' standing and very much Marion's seniors in years! Mr. Calvesfoot, the butcher, for instance, let her have fat for rendering down at 2d. a pound, and so she was able to have a constant supply of excellent dripping for frying and for pastry at the slightest possible cost. She started her stock with four pounds at the beginning, and by straining it each time after using it, and by rendering down one and a half pounds of fresh fat each week and adding it to the stock, she always had plenty of good dripping. To do this she cut up the fat and put it in a saucepan with a little water, and then let it cook until the water had boiled away and the fat had melted, leaving nothing but crisp little brown bits; the liquid fat was strained off and the crisp brown bits saved for Abigail, by whom they were esteemed a great luxury. To others Mr. Calvesfoot was adamant, and declined to part with the fat under double the sum, but Marion (who was asked the extra price at first) refused to take "No" for an answer, and asked him calmly why he could not let her have it cheaply as well as the soap-boilers

whose carts she had seen waiting before his shop early in the morning, and who she knew only gave him a penny a pound for it.

At the exhibition of so much knowledge he was dumb, and fell in with her views with much meekness, as no doubt he would have done for his other customers if they had not allowed themselves to be beaten so weakly.

She always provided a hot dinner as she found that, with proper management, it cost no more than a cold one, and it was infinitely more appreciated. She had learnt just how much was required of any given thing, and so there was no waste. The little that was left over from their dinner was always worked into the next day's meals, or else was finished up by Abigail on the alternate days when she had dinner at "The Rowans."

Here we have the list of a week's dinners in February.

On Sunday they had a light supper at half-past eight, consisting of cocoa, boiled eggs, and bread and butter.

Saturday and Sunday were the only days on which they were at home to tea.

The breakfast for the week, on non-porridge mornings, consisted of brawn, which Marion had made a fortnight before, when they had had half a pig's face sent them from the country. The brawn was excellently flavoured.

DINNERS FOR THE WEEK.

<i>Sunday.</i>	Beef and Kidney Pie. Baked Potatoes. Pineapple in Syrup. Rice Mould.
<i>Monday.</i>	Cabbage Soup. Boiled Beef and Kidney Pudding. Boiled Potatoes. Cabbage. Jam Tarts.
<i>Tuesday.</i>	Irish Stew. Apple Pie.
<i>Wednesday.</i>	(High Tea Night.) Stuffed Herrings. Scones. Cocoa.
<i>Thursday.</i>	Potato Soup. Curried Fish. Ginger Pudding.
<i>Friday.</i>	Stewed Rabbit and Forecmeat Balls. Brussels Sprouts. Baked Potatoes. Swiss Roll.
<i>Saturday.</i>	Brown Soup. Boiled Potatoes. Boiled Artichokes. Tapioca Pudding.

OUR LILY GARDEN.

PRACTICAL AIDS TO THE CULTURE OF LILIES.

By CHARLES PETERS.

*Lilium Monadelphum.*

THE life history of the lily is one of perpetual growth. The lily never lies dormant.* In the severest frost, or in periods of great drought, this plant is ever developing. As soon as the flower-stem has died down, the bulb begins to form fresh roots and continues to do so until the time comes round again for it to send up its flower spikes. *Lilium Candidum* throws up a winter crop of leaves during the autumn, but the other lilies perform all their winter labours below ground.

Let us follow the life of the lily through the year and see how each particular season has its special work and dangers.

We have planted our bulbs in November. They will do nothing but form roots till about March. During this period most bulbs will stand any frost that we are likely to have, but those of *L. Wallichianum*, *L. Catesbaei*, and one or two others, occasionally die during severe frost. Though cold does not appreciably injure lily-bulbs, it is far otherwise with wet. As we have said before, lilies love rain when the stems are growing, but when the bulbs are making root in winter they do not like much moisture. If the soil is perfectly well drained, we much doubt whether any quantity of rain would cause the bulbs to rot. But in soils where stagnant water can lie about the bulbs, the result of a wet winter is often disastrous.

"Our soil is a stiff clayey loam, but we wish to have lilies. What can we do to render our ground a fit place wherein to grow them?" You can do one of two things. Either you can provide that the lilies are well drained by digging deeply and filling in with crocks, stones, etc., and mixing plenty of sharp sand with the soil; or else you can follow the Japanese plan of placing the lily bulbs on their sides. Bulbs with large, open scales, such as those of *L. Brownii*, suffer much more from wet than such compact bulbs as those of *L. Umbellatum*, etc.

The second stage in the growth of lilies dates from the appearance of the shoot till

the opening of the flower-buds. We have already described the treatment necessary at this stage. It is at this time that you must guard against drought and slugs, and look out for diseases.

The opening of the flower-buds is the most anxious but also the most exciting period in the life of the lily. When the buds have begun to change colour a good drenching of the roots with very weak liquid manure will materially help to develop the flowers. Do not give liquid manure before this time, and never give more than two doses to any plant.

The green fly or aphid is a very exasperating foe. It does not eat holes in the leaves, but lives upon the upper leaves and buds, usually upon their under surface. Its presence causes the buds to develop irregularly. The bud grows less quickly on that side where the aphides are domiciled, and the whole bud becomes curved or twisted. When this bud opens, it shows but an ugly, deformed flower.

The best way to deal with aphides is to brush them off with a soft brush. This is the only method of dealing with them that can do no harm to the buds. Fumigation or syringing with soft-soap and water are frequently used to destroy these pests.

Another cause which ruins the lily flowers is canker of the buds or blossoms. We described the cause and treatment of this calamity last month.

Very often a lily will produce more buds than it has strength to develop. Some of these superfluous buds will soon show signs of withering and should be at once removed.

It is well to remove every deformed or injured bud as soon as possible, for it gives the plant a better chance of developing the remainder.

When once the flowers have opened, the plant may be left alone till they wither. If possible, lilies should be placed in the shade whilst they are in blossom, as the flowers will then last for a longer time.

Usually one bud will open and then die before another is fully developed. In this case the dead blossom—or rather the seed-vessel, for the perianth falls of its own accord—should be cut off.

After the lily has flowered, it will require but little attention until the flower spike has completely died down. At this period but little water need be given.

The flower spike must never be cut down till it has completely withered to the base. When this has occurred the entire stem can be easily removed by a slight jerk.

The life of the lily for the year is now over. What are we to do with the bulbs? Shall we leave them as they are, or shall we transplant them?

Lilies in the ground do best when left undisturbed for years. Some lilies, such as *Martagons* and *Lilium Candidum*, never do well until they have been established for a year or two. Other lilies, such as *L. Longiflorum*, often dwindle in a very few years.

If the lilies have done well, have not been diseased and have blossomed freely, leave them as they are. If, on the other hand, the plants have borne poor or deformed blossoms, or have become diseased, or, above all, if they have been getting poorer year by year, take up the bulbs, as soon as the flower stems have died down, and plant them elsewhere.

Plant these bulbs in the same way and with the same precautions as you do new bulbs;

detach any small bulblets and plant these separately. Never let the bulbs remain out of the ground longer than can possibly be helped.

Lilies in pots must be repotted every year. As soon as the stem has died down, empty the pot, shake out the bulb, separate any offshoots that it may have made, and replant at once.

Very little water need be given during the winter, but the bulbs must not be allowed to become dry. It is a great mistake to winter hardy lilies indoors or in a greenhouse, as it renders the plants tender and liable to disease.

Although all lilies are perennial, that is, they come up every year, there are some kinds, notably *Lilium Canadense*, which show great reluctance to becoming established, and after coming up well for two or three years, suddenly disappear altogether. This is especially the case when the plants have been allowed to ripen their seed. Indeed, all lilies tend to dwindle when they are allowed to go to seed. One reason why *L. Candidum* is so much better when grown in neglected situations than any other lily is because it never produces seed in this country.

There are four methods by which lilies may be propagated; by seed; by bulblets, which are formed in the axils of the leaves of some species; by offshoots from the parent bulb, and by detached scales. Again the bulbs often split into two or more parts. If a single bulb has sent up two flower spikes, the bulb will probably be found to have split into two, the scales re-arranging themselves accordingly. If these two bulbs are separated, each will send up flower spikes either next year or the year after.

Growing lilies from seed is a tedious affair and is not worth its salt except when trying to raise hybrids or new species of great rarity.

The seeds should be grown in seed-pans in a mixture of peat, leaf mould, sand and moss. They take from six weeks to two years to germinate. Under glass they germinate more quickly. They never produce flowering bulbs till at least two years after they have been sown. *Lilium tenuifolium* grows the most rapidly, and often flowers in the third year. Other kinds take from three to ten years to form a flowering bulb—time enough to exhaust the patience of any amateur. The vast majority of seeds either never germinate, or, if they develop so far, die before they have formed a bulb of sufficient size to send up a flower spike. Not all lilies produce seeds in this country. *L. Candidum*, *Testaceum*, *Chalcedonicum*, and others never do. Most kinds only ripen their seeds in very propitious seasons. So much for seeds.

The second method of increasing lilies is by growing the small bulblets which form in the axils of the leaves. Only *L. Bulbiferum*, *L. Tigrinum*, and occasionally one or two others, produce these axial bulblets. Sow the bulblets as you do the seeds. They usually germinate very quickly, and produce flowering bulbs within two years.

The commonest, quickest and best way to increase lilies is through the small bulbs which grow round the base of the parent. These may be removed when the bulbs are lifted and planted at once. They will flower in one or two years.

Before we leave the question of the cultivation of lilies, we will refer to two or three

* That is, in the natural condition when left in the ground. If the bulbs are taken out of the ground in August they will remain dormant for a month or two.

*L. Neilgherrense.**L. Philippense.**L. Nepalense.**L. Parryi.**L. Washingtonianum.**L. Alexandre.**L. Longiflorum.*

LILIES OF THE EULIRION GROUP.

constituents of the soil, the presence of which is by some authors described as imperative, by others as injurious.

Peat is absolutely necessary to *L. Superbum*, *L. Canadense*, *L. Roezlii*, *L. Philadelphicum*, *L. Pardalinum*, *L. Parryi*, and some others. Even those lilies to which peat is not a necessity, are yet benefited by its presence in the soil. This is notably the case with *L. Auratum*, *L. Speciosum* and *L. Longiflorum*. *L. Candidum*, *L. Testaceum* and most of the Martagons dislike peat. To *L. Szovitsianum* and the other varieties of *L. Monadelphum* peat seems to be positively injurious.

It has long been a moot point whether lilies should or should not have manure administered to them. Here, as elsewhere, we will give our own experience of the matter. Most lilies appreciate manure if it is not too strong or moist. Manure which is likely to turn the earth sour is fatal to lilies. The remains of a hot-bed is the best possible kind of manure to give to lilies. Place a little of the manure below the bulb and a little above it, but do not let it come within two inches of the bulb. The bulbs will rot if manure is placed near them.

Some lilies like a chalky soil, others show distinct aversion to it. The swamp lilies and others which like peat object to lime in the soil. *L. Candidum* and *Monadelphum* apparently require a considerable quantity of lime.

All lilies require sand. Sand should be placed round and below each bulb and should also be mixed with the earth in which the lilies are planted. Clean, sharp river sand is the best to use, but sea sand or clean silver sand may be used. Sand is used for the triple purpose of attracting moisture, preventing stagnation, and rendering the soil permeable.

The leaf mould most suitable for lilies is that formed from decayed oak or beech leaves.

Clay is prejudicial to most lilies, but in very dry, sandy soil lumps of clay may be placed

about the lily bed. *L. Auratum* likes a small quantity of clay in the soil.

We have finished our remarks on the cultivation of the lily, and will now glance into the æsthetic side of these noble flowers.

Though every lily is beautiful in itself, it does not follow that it will look well in the flower bed. A garden should be a sheet of beauty, not a herbarium in which curious and beautiful flowers grow singly, each named and numbered, and requiring a guide to point out the various objects of interest. No! A garden must be one harmonious blaze of beauty, and though, of course, individually beautiful objects are necessary to produce this result, a great deal depends upon the proper grouping of the various constituents.

A bed of mixed lilies, in which all kinds were grown together, would look simply ridiculous. To have *L. Giganteum*, ten feet high, next door to *L. Rubellum*, of scarcely half as many inches, would be absurd. You must think of the general look of your garden. You must have pleasing contrasts of colour, and the plants arranged according to their height or method of growth.

One of the most beautiful sights that we have ever seen was a garden in Middlesex in which the path leading from the gate to the house was lined on either side with a border of very fine *L. Candidum*. The effect of the long lines of pure white blossoms was exceedingly fine, but unfortunately this lily is only in flower for about one month of the year. Still no one would grumble at having to wait eleven months if such a splendid effect could be obtained, even if it lasts but a twelfth of the year.

Have you ever seen a bed of *L. Monadelphum* at the back of the tropical palm-house at Kew? Last year it was a sight never to be forgotten. The lilies were grown in a bed of small azaleas, the green of whose foliage was a beautiful set-off to the gorgeous heads of blossoms which towered three or four feet above the carpet of foliage. There are other beds like this one planted with different sorts

of lilies, but only one species is present in each bed. In one bed *L. Brownei*, in another *L. Croceum*, and in others again the various varieties of *L. Auratum* arrested the attention. All were perfect in their way, but none of them gave us such keen delight as this bed of *L. Monadelphum*.

A large clump of lilies of one variety is always a pleasing sight, and so is a solitary lily rearing up its head high above the other occupants of the flower bed. A small hillock covered with *L. Longiflorum*, or the side of a stream with the lofty *L. Pardalinum* is also very beautiful.

When you wish to grow various kinds of lilies in the same bed, a good deal of taste and experience is needed to produce a perfect effect. A gradation in height from the centre to the borders is necessary. Tall lilies planted at the edges of the bed are out of place, whilst the dwarfer lilies are insignificant in the centre. Lilies in the ground flower from April till November, and so a succession of these plants can be obtained throughout the late spring, the summer and the autumn. For artistic effects you must be careful not to place lilies of nearly the same colour together. Never, for instance, place *L. Pomponium* near to the red varieties of *L. Elegans*, else the effect is harsh and displeasing. A mixed border of *L. Candidum* and *L. Chalcodonicum* produces a fine effect, especially if both plants flower at the same time.*

Another fine picture can be caused by a mixed border of *L. Longiflorum* with the late red varieties of *Lilium Elegans*.

A considerable amount of taste can be shown in the proper grouping of lilies, and the flower-grower who likes constant variety can satisfy his desire by altering the arrangement from year to year.

(To be continued.)

* *Lilium Chalcodonicum* usually flowered about a fortnight or more later than *L. Candidum*, but occasionally both species flower at the same time.

OUR LILY GARDEN.

PRACTICAL AIDS TO THE CULTURE OF LILIES.

By CHARLES PETERS.

*Lilium Candidum.*

THE genus *lilium* is a large one, containing as it does over fifty species. The species themselves are very distinct and differ remarkably from each other in their forms and habits. It has therefore been thought advisable to sub-divide the genus into certain groups or sections which are distinguished chiefly by the shape of the flower.

There have been many divisions of the genus, and, as in every other classification of natural objects, all are very imperfect. It is extraordinary the contempt that nature has for human classifications and statistics!

However you may divide any set of objects, you will find that there are many of them which will stick on the wall and refuse to be included in any one of your orders.

And so it is in the present instance. The most approved division is given below; but you will see that there are grave objections to it. Personally we cannot see the scientific reason for the division of the genus at all. This is our excuse for not following the generally received classification. The arrangement of lilies which we are going to adopt does not pretend to be scientific. It is merely adopted in order that we can group together species which are more or less like each other. It is a classification for the flower grower and not for the botanist.

One of the latest, best, and most generally accepted classifications is the following division of the genus into six groups thus—

SECTION I.—*Cardiocrinum*.

Perianth* funnel-shaped, with oblanceolate† segments, falcate‡ only at the apex. Leaves heart-shaped, ovate, and stalked.

1. *Cordifolium*. 2. *Giganteum*.

SECTION II.—*Eulirion*.

Perianth same as *Cardiocrinum*. Leaves linear or lanceolate, not stalked.

- (a) Tube scarcely widened from base to middle. 3. *Philippinense*. 4. *Wallichianum*. 5. *Longiflorum*. 6. *Neilgherrense*. (b) Tube widened from neck to base. (a) Leaves scattered. 7. *Japonicum*. 8. *Brownii*. 9. *Krameri*. 10. *Nepaulense*. 11. *Candidum*. 12. *Belladonna*. (b) Leaves in whorls. 13. *Washingtonianum*. 14. *Parryi*.

* Perianth. Scientific term for the floral leaves.
† Oblanceolate. Narrowing towards the point of attachment.
‡ Falcate. Curved, sickle-shaped.

SECTION III.—*Archelirion*.

Perianth open and funnel-shaped. Segments deeply spreading and broadest about the middle. Stamens diverging from the style, which is curved.

- (a) Leaves sessile. 15. *Tigrinum*. 16. *Oxyptalum*. (b) Leaves stalked. 17. *Speciosum*. 18. *Auratum*.

SECTION IV.—*Isolirion*.

Perianth erect. Segments falcate, but not revolute. Stamens diverging on all sides.

- (a) Leaves in whorls. 19. *Philadelphicum*. 20. *Medeoloides*. (b) Leaves scattered. (a) Style shorter than ovary. 21. *Concolor*. (b) Style longer than ovary. 22. *Bulbiferum*. 23. *Croceum*. 24. *Dauricum*. 25. *Elegans*. 26. *Catesbaei*.

SECTION V.—*Martagon*.

Perianth cernuous with the segments very revolute. Stamens diverging on all sides.

- (a) Leaves in whorls. (a) American species; bulbs annual bearing rhizomes. 27. *Canadense*. 28. *Pardalinum*. 29. *Superbum*. 30. *Lucidum*. 31. *Roetzlii*. 32. *Columbianum*. 33. *Humboldtii*. (b) Old world species. 34. *Martagon*. 35. *Avenaceum*. 36. *Hansonii*. (b) Leaves scattered. (a) Leaves lanceolate. Many-nerved. (i.) Perianth falcate above middle. 37. *Monadelphum*. (ii.) Perianth revolute to below middle. 38. *Polyphyllum*. 39. *Ponticum*. 40. *Carniolicum*. (b) Leaves narrow. With one or few nerves. (i.) Segments of the perianth from six to twelve lines broad in the middle. 41. *Testaceum*. 42. *Leichtlini*. 43. *Batmanniae*. 44. *Pseudo-Tigrinum*. 45. *Wallacei*. (ii.) Segments of the perianth from three to six lines broad in the middle. 46. *Pomponium*. 47. *Chalcedonicum*. 48. *Callosum*. 49. *Tenuifolium*.

SECTION VI.—*Notholirion*.

50. *Hookeri*. 51. *Roseum*. We said that in all divisions of natural objects there were "aberrant" types which

refused to be located in any one group and remained sitting on the wall between several of the divisions. And in this group there are likewise some which stick upon the wall. The chief reasons we have for not using this classification will be apparent from the following criticism of it.

The first section, *Cardiocrinum*, forms a very natural group. *L. Cordifolium* and *L. Giganteum*, though distinct species, are yet very near akin and are totally different from any other lilies.

Of the *Eulirion* section, the first or *Longiflorum* group, containing *L. Longiflorum*, *L. Wallichianum*, *L. Philippinense*, *L. Neilgherrense*, and the new *L. Formosanum*, forms as natural a division as is *Cardiocrinum*. But the other members of the *Eulirion* group are by no means so easy to classify.

L. Japonicum Odorum and *L. Brownii* are very nearly allied. *L. Krameri*, with the new *L. Rubellum*, more nearly resemble the *Archelirion* than the present group.

In certain characters *L. Nepaulense* nearly resembles *L. Monadelphum*, a member of the *Martagon* group.

L. Candidum bears but little resemblance to the other *Eulirions*. Its flowers are short and numerous, and the bulb sends up an autumn crop of leaves. In the last characteristic it differs very markedly from every known lily.

L. Belladonna is unknown to us.

L. Washingtonianum and its varieties resemble *L. Candidum* in bearing numerous small short flowers. Its bulb is very similar to that of *L. Humboldtii* in being an oblique,

almost rhizomatose, structure.

L. Parryi resembles *L. Nepaulense* in some particulars, and *L. Washingtonianum* in others. Its bulb, however, is more like that of *L. Pardalinum* than that of any other species.

Of the *Archelirion* section, *L. Auratum* and *L. Speciosum* have much in common. But *L. Tigrinum* has but little relation to the former two lilies; its drooping flowers strongly suggest that this lily should be placed with the *Martagons*.

L. Leichtlini and *Pseudo-Tigrinum* are placed among the *Martagons*; yet these two lilies bear a very strong resemblance to *L. Tigrinum*.

L. Oxyptetalum differs from all other lilies in many respects. It resembles the fritillaries in most points and was formerly included with those plants.

As regards the *Isolirion* group, in which the flowers are erect, we would place *L. Medeoloides* with the *Martagons*, next to *L. Hansonii*—the plant which it most resembles.

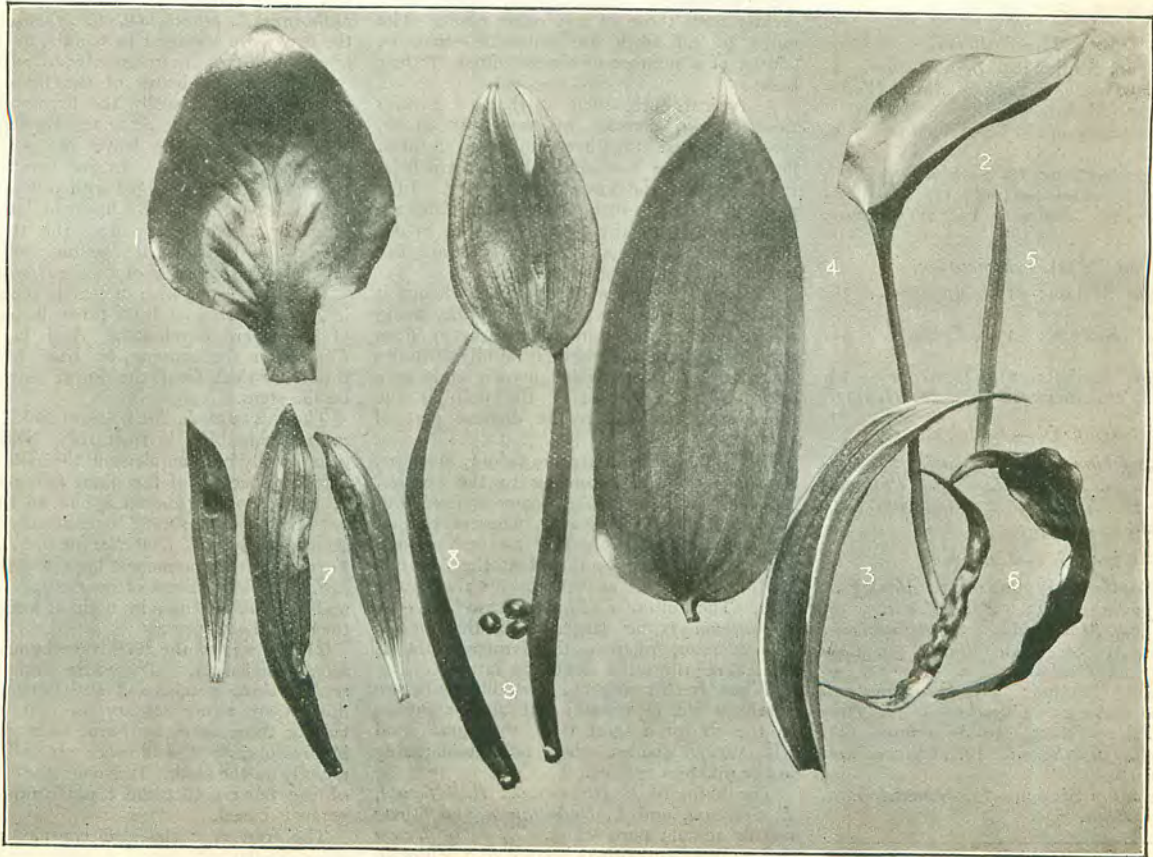


L. Umbellatum. (Showing abnormal development of aerial bulblets.)

L. Concolor and its varieties should form a group of themselves.

*L. Batmanniae** and *L. Wallacei* should certainly be included with the *Isolirions*, and not with the *Martagons*.

* This is the right way of spelling the word. The lily was named after Mrs. Bateman.



LILY LEAVES. (From a photograph. Quarter diameter.)

1. Leaf from upper part of stem, *L. Giganteum*.
2. Basal leaf of *L. Cordifolium*.
3. Leaf of *L. Auratum*.
4. Leaf of *L. Auratum Platyphyllum*.
5. Leaf of *L. Pyrenaicum*.
6. Leaves of *L. Longiflorum*, showing injury done by green fly.
7. Leaves of *L. Brownii*, showing commencement of disease.
8. Deformed leaf, *L. Longiflorum*.
9. Leaves and bulblets of *L. Tigrinum*.

The *Martagons* fall naturally into several groups. The first group, which we might call the swamp lilies,* includes *L. Superbum*, *L. Canadense*, *L. Pardalinum*, *L. Roetzii*, and one or two new species. All these lilies have but slightly recurved flowers and rhizomatous bulbs. They are all natives of North America.

Another group which we might call the true *Martagons* would include *L. Martagon*, *L. Pomponium*, *L. Pyrenaicum*, *L. Avenaceum*, *L. Tenuifolium*, *L. Callosum*, *L. Chalcedonicum*, and *L. Hansonii*, etc.

L. Humboldti is different from any other lily in many points. Its bulb somewhat resembles that of *L. Washingtonianum*.

L. Polyphyllum and *L. Monadelphum* much resemble each other in the form of their flowers.

L. Testaceum is a hybrid. *L. Ponticum* is a variety of *L. Monadelphum*. *L. Lucidum* is unknown to us.

We are not going to adhere to this division. The one we are about to tabulate seems to us to be more useful. It is tentative, and its subject maybe to grave objections; but on the whole we think that it will be more generally useful to the lily grower. Obviously it is founded on the former classification, and we have used the names of the groups which are generally accepted.

We append no description to each group, for, though we could do so if we were pressed, we wish it to be clearly understood that the division is purely experimental, as what classification is not?

GROUP I.—*Cardiocrinum*.

1. *Giganteum*. 2. *Cordifolium*.

GROUP II.—*Eulirion*.

Longiflorum Section: 3. *Longiflorum*. 4. *Formosanum*. 5. *Philippinense*. 6. *Wallichianum*. 7. *Neilgherrense*.

Japonicum Section: 8. *Japonicum Odorum*. 9. *Brownii*.

Candidum Section: 10. *Candidum*.

Washingtonianum Section: 11. *Washingtonianum*. 12. *Parryi*. 13. *Nepaulense*. 14. *Lowi*.

GROUP III.—*Archelirion*.

Auratum Section: 15. *Auratum*. 16. *Speciosum*.

Krameri Section: 17. *Krameri*. 18. *Rubellum*.

Tigrinum Section: 19. *Tigrinum*. 20. *Leichtlini*. 21. *Maximowiczii*. 22. *Henryi*.

GROUP IV.—*Isolirion*.

23. *Bulbiferum*. 24. *Catesbaei*. 25. *Batmanniae*. 26. *Wallacei*. 27. *Philadelphicum*. 28. *Elegans*. 29. *Croceum*. 30. *Davuricum*.

GROUP V.—*Martagon*.

True *Martagon* Section: 31. *Martagon*. 32. *Pomponium*. 33. *Pyrenaicum*. 34. *Hansonii*. 35. *Medeoloides*. 36. *Avenaceum*. 37. *Callosum*. 38. *Tenuifolium*. 39. *Carniolicum*. 40. *Chalcedonicum*.

Swamp-lily Section: 41. *Columbianum*. 42. *Humboldti*. 43. *Canadense*. 44. *Parvum*. 45. *Maritimum*. 46. *Superbum*. 47. *Roetzii*. 48. *Pardalinum*. 49. *Californicum*. 50. *Grayi*.

Monadelphum Section: 51. *Monadelphum*. 52. *Polyphyllum*.

GROUP VI.

53. *Concolor*. 54. *Davidii*.

GROUP VII.

55. *Oxyptalum*. 56. *Roseum*. 57. *Hookeri*.

There are therefore fifty-seven distinct species of lilies; but of these there are over one hundred and twenty varieties. Besides these there are four double-flowered varieties, and four definite hybrids.

In our next number we will proceed with the description of these various species and varieties. But before we attempt to describe the individual species, let us glance at some of the chief characteristics of the various parts of lilies.

The lily has two sets of roots. One set develops beneath the bulb, the other is given off by the flower shoot above the bulb. Each set serves a definite purpose, and both are absolutely necessary to the welfare of the plant. The lower roots are concerned chiefly with the development of the bulb; the upper roots, or those given off by the flower-shoot, are the main source of supply to the stem and flowers. Unless these roots develop and are well covered with earth, the plant will not flower.

If the flower stem is removed from the bulb and the upper roots are not disturbed, it will continue to grow unchecked. Or, again, if the bulb be destroyed by disease, or its lower roots do not develop, the lily may still flower; but if the stem roots are destroyed, the shoot dies, even though the bulb and lower roots are quite perfect.

All the lilies possess bulbs. These bulbs are exceedingly characteristic, and differ greatly from those of any other plant. The bulbs of all lilies are imbricate—that is, consist of a number of scales united at their bases.

A typical bulb, such as that of *Lilium Longiflorum*, consists of numerous scales, closely packed together, united to a firm, fleshy part—the base of the bulb. It is from the base that the lower roots spring. In a perfectly sound fresh bulb the outer scales are approximated to the next layer, but in dry bulbs the outer scales wither and are but loosely applied to the inner ones.

The bulb is narrow at the base, whence it rapidly increases towards the middle, being thickest about one third of the way up from the base. From the middle it rapidly dwindles towards the crown, which usually ends in a point. In the centre of the bulb is the flower spike, which is the densest part of the bulb.

Lily bulbs vary in size, in colour, in shape, and in structure, according to the species. The bulb of *Lilium Giganteum* is from four to five inches in diameter, whereas that of *L. Wallacei* is barely half an inch across. As a rule, the larger the plant the larger is its bulb; but this is by no means always the case. The bulb of *L. Tigrinum* var *Fortunei* *Giganteum* is no larger than that of *L. Longiflorum*, whereas the former plant is quite three times the size of the latter.

When freshly dug up, most lily bulbs are nearly white in colour; but after exposure to the air for a short time, they get tinted with various shades, which differ remarkably in the different species.

The bulbs of *L. Elegans*, *L. Bulbiferum*, *L. Croceum*, and *L. Umbellatum*, and others usually remain pure white. *L. Longiflorum* and a great many others become of a yellowish tint. *L. Speciosum* and *L. Auratum* usually

become a dark brown or purplish colour. The bulb of *L. Giganteum* is usually a deep russet colour.

Lily bulbs vary greatly in shape and structure. The typical bulb is ovate or pyramidal in shape, with small regular scales. There are many variations from this. Some are more or less rounded, others, notably that of *L. Polyphyllum*, are very long and narrow. Some have large flat scales, whilst in others the scales are small and rounded. Some bulbs, such as those of *L. Superbum*, *L. Canadense*, and many others, are borne upon a perennial rhizome, the bulbs themselves being annual.

The bulbs of *L. Humboldti* and *L. Washingtonianum* are curiously unlike those of any other lilies, being flat and oblique. Some bulbs possess a large number of minute scales, others have but a few large scales.

The bulbs of *L. Roseum* and *L. Hookeri* are invested with a dense membranous sheath like the bulbs of the tulip. No other lily bulb possesses this sheath. These are some of the varieties of lily bulbs; an accurate description of most will be found in connection with the accounts of the various species.

The stem of the lily is usually straight and unbranched. Very rarely the stem is branched. It varies in diameter and toughness in the various species. In some species it is covered with down.

The leaves are subject to even greater variety than is the bulb. They may be few or many, arranged in whorls or scattered, and of various colours and shapes.

L. Chalcedonicum has many hundred leaves, whilst *L. Auratum* rarely has more than thirty. In some lilies, such as *L. Washingtonianum*, *L. Humboldti*, *L. Martagon*, etc., the leaves are arranged in whorls, but in most kinds the leaves are irregularly scattered.

In colour the leaves of the lilies present much variety. Usually the leaves are deep glossy green. In *L. Longiflorum Foliis Albo-Marginatis* the leaves are pale green bordered with white. In one variety of *L. Candidum* they are edged with yellow.

Lily leaves are usually linear or lanceolate; but they vary in shape from the thin pine-needle-like leaf of *L. Pyrenaicum*, to the broad heart-shaped leaf of *L. Cordifolium*.

Usually but one kind of leaf is present, but in *L. Giganteum* at least three distinct forms of leaves are developed. And in *Lilium Candidum* the autumn or base leaves are totally distinct from the linear leaves borne on the stem.

The leaves of *L. Bulbiferum* and *L. Tigrinum* bear bulblets in their axils. Other lilies occasionally bear bulblets in the axils of their leaves, especially if the plant fails to flower. A bulb is only a modified bud, so that it is not surprising it should occasionally develop above ground. *L. Umbellatum* and *L. Longiflorum* are the commonest lilies to bear these aerial bulblets, except of course *L. Tigrinum* and *L. Bulbiferum*, in both of which lilies they are always present.

The flowers of the lilies vary immensely in most particulars. There are always three sepals, three petals, and six stamens. The flowers are either solitary, or there may be two or three or many borne in a pyramidal inflorescence. The flowers are borne terminally on the stalk. It is upon the characters of the flowers that the classification of the genus is based.

The fruit is a six-sided capsule, and the seeds are flat with broad membranous wings.

(To be continued.)

* *L. Superbum* is the swamp lily. It is one of the most typical of the group.



but no summons came. She heard Lady Darcy's exclamation, and the quick, strong tones of the strange Countess.

"Charming, charming; quite a stroke of genius! I never saw a more artistic little nook. What made you think of it, my dear?"

"Ha!" said Peggy to herself, and took a step forward, only to draw back in dismay, as a light laugh reached her ear, followed by Rosalind's careless—

"Oh, I don't know; I wanted to make it pretty, don't you know; it was so dreadfully bare, and there seemed no other way."

Then there was a rustle of silk skirts, and the two ladies entered the room, followed by their respective daughters, Rosalind beautiful and radiant, and the Ladies Berkhampton with their chins poked forward, and their elbows thrust out in ungainly fashion. They paused on the threshold and every eye travelled up to the wreath-decked ceiling. A flush of pleasure came into Lady Darcy's pale cheeks, and she listened to the Countess's compliments with sparkling eyes.

"It is all the work of this clever child," she said, laying her hand fondly on Rosalind's shoulder. "I have had practically nothing to do with the decorations. This is the first time I have been in the room to-day, and I had no idea that the garlands were to be used in this way. I thought they were for the walls."

"I congratulate you, Rosalind! You are certainly very happy in your arrangements," said the Countess cordially. Then she put up her eyeglass and stared inquiringly at Peggy, who stood by with her hair fastened back in its usual pig-tail, and a big white apron pinned over her dress.

"She thinks I am the kitchen-maid!" said Peggy savagely to herself; but there was little fear of such a mistake, and the moment that Lady Darcy noticed the girl's presence, she introduced her kindly enough, if with somewhat of a condescending air.

"This is a little friend of Rosalind's who has come up to help. She is fond of this sort of work," she said;

then, before any of the strangers had time to acknowledge the introduction, she added hastily, "And now I am sure you must all be tired after your journey, and will be glad to go to your rooms and rest. It is quite wicked of me to keep you standing. Let me take you upstairs at once!"

They sailed away with the same rustle of garments, the same babel of high-toned voices, and Peggy stood alone in the middle of the deserted room. No one had asked her to rest, or suggested that she might be tired; she had been overlooked and forgotten in the presence of the distinguished visitor. She was only a little girl who was "fond" of this sort of work, and, it might be supposed, was only too thankful to be allowed to help. The house sank into silence. She waited for half an hour longer in the hope that someone would remember her presence, and then, tired, hungry, and burning with repressed anger, crept upstairs to her own little room and fell asleep upon the couch.

(To be continued.)

OUR LILY GARDEN.

PRACTICAL AIDS TO THE CULTURE OF LILIES.

By CHARLES PETERS.

THE first group of lilies, "*Cardiocrinum*," contains but two lilies. These two plants strongly resemble each other but are both totally different from any other species.

Many years ago, long before we ever dreamed of growing lilies ourselves, we first made acquaintance with the magnificent *Lilium Giganteum*.

We had been walking all day in the south of Hertfordshire, and as evening was approaching we turned to retrace our steps. But the district was new to us, and we found that we had wandered many miles from our path. We looked about us for someone of whom to ask our way, but the road was deserted save for ourselves. We trudged onwards for about a mile, and seeing a cottage a short way ahead, we determined to ask our way of one of its inhabitants.

It was about eight o'clock in the evening of a broiling hot day in the beginning of July. We opened the gate, approached the house, and knocked at the door. But the house was apparently empty, for our knock was unheeded and there was no sign nor sound of any person in the house. We knocked again, but this summons also being futile, we walked round the house and entered the back garden. It was a beautiful garden, one of those old gardens in which flowers have been cultivated for centuries, and in which the most beautiful of garden-plants seem as much at home as do the weeds in our country lanes.

But it was not the flowers, nor the well-kept lawn, which arrested our attention. On turning round the house we had become aware of an intense fragrance not unlike that of the lily of the valley, but many times more powerful. We glanced around to discover what plant it was which exhaled this perfume, and for a few minutes we were unable to discover it. But on turning our gaze towards the opposite corner of the garden, we saw a magnificent clump of the giant lily under the shade of three tall lime-trees. There were

five spikes, the shortest of which was over five feet high, each surmounted with from ten to twelve blossoms like bells of shining wax.

We approached the spot and stood admiring this glorious plant for many minutes. But the remembrance that we had lost our way was gradually forced upon us, and we left the lilies, filled with an admiration for them which will never tarnish. We found no one in the garden, but eventually we discovered the right way home.

The next year we tried to find this cottage and revisit the lilies, but we have never to this day been able to find it.

We did not again behold this wonderful lily till July, 1898, when we flowered a single one in our own garden. This specimen did not exceed four feet in height, but it matured nine perfect blossoms.

The *Lilium Giganteum*, the giant lily of the Himalayas may well stand at the head of the genus. Its blossoms are perhaps not so fine as those of some other species, but in foliage, in growth and in fragrance it is second to none.

The bulb of this species is about the size of a very large cocoa-nut, but varies considerably in size according to whether it is going to flower the next season or not. The bulb consists of few scales, which are large, fibrous, and of a dark russet hue. The tops of the scales have a rotten-looking appearance. The bulb is very compact, hard and heavy.

About the middle of March the plant begins to show above ground. Its appearance after this varies considerably. If it is not going to flower it puts up a large mass of fine, deep, glossy green leaves, which somewhat resemble those of the White Arum. These leaves are heart-shaped, very glossy, many-nerved and distinctly stalked. The lily will probably repeat this process next year, and perhaps the next too; but if it has been well attended to, in the third or fourth year it will put up a flower-spike. When the stem first shows it

has an appearance very similar to a small lettuce. It grows very rapidly and attains its full height about the beginning of July.

When full grown this lily has a very noble appearance. Its stem is from four to fourteen feet high, perfectly straight and gradually tapering from its base, where it is one to three inches in diameter, to its top, which narrows almost to a point.

Three distinct forms of leaves are borne on this stem. The lower ones resemble the leaves sent up in the non-flowering years. The upper leaves are smaller, less heart-shaped and with stalks. The third set of leaves, the bracts, enclose the flower buds. These are simple sessile leaves which fall off when the flowers open.

The flowers vary in number from four to twenty. They are borne directly on the stem, without separate stalks. They are from six to nine inches long, of a pure white externally, slightly tinged with green near their attachments. Inside they are creamy white, with a broad streak of a rich claret colour down the centre of each petal. The pollen is yellow. The scent of this lily is intensely fragrant and almost overpowering. The seeds are flat and triangular with broad membranous wings.

The tips of the perianth are very slightly reflexed. In most drawings of this lily the flowers are made to look like those of *L. Longiflorum*, but they are quite different, being long and narrow, with very slightly reflexed petals and sepals.

It is often said in books that the bulb of this lily dies after once flowering, but this is not correct. The central part of the bulb does rot, but two or three small bulblets are left at its margin, which will in favourable circumstances grow and eventually flower.

This lily is a native of the Himalayas growing at a height of five to ten thousand feet above the sea-level.

The cultivation of this lily presents some difficulties, but surely it is worth while to give

a little trouble to grow such a superb plant? We very rarely see it in cultivation, but in our garden it shall always find a home.

A plant growing in such a robust manner as this lily is not suitable for a flower-bed. It should be grown by itself in a shady nook. A clump of two or three looks very lovely, and it is possible to arrange matters so as to have at least one flowering spike every year.

It is not quite hardy, except in our southern counties, but it rarely needs more protection than a heap of bracken or other litter thrown over it in the winter.

If you wish to grow this lily, choose a suitable spot and dig out the earth to the depth of four feet. Fill in with a mixture of strong loam, decayed leaf mould and the remains of a hot-bed. To this add a little peat and plenty of sharp sand. The plant is a gross feeder and literally revels in "muck." An occasional drenching with liquid manure is often very helpful. It requires large quantities of water during the growing period.

Resembling *L. Giganteum* so closely that formerly it was considered as a variety of that plant, but vastly inferior in every way, *L. Cordifolium* is the only other lily possessing heart-shaped leaves.

The bulb of *L. Cordifolium* is like that of *L. Giganteum*, but is scarcely a fourth the size.

Its leaves also resemble those of *L. Giganteum*, but the base leaves are not so numerous, and the lower ones are congregated into a whorl. The upper leaves are irregularly scattered. The lowest leaves are curiously marked with a deep mahogany hue, which is never present in those of *L. Giganteum*, and which helps to distinguish between the two plants. The leaves are even more cordate than are those of *L. Giganteum*, especially the lower ones which form a very tolerable image of the "artistic" heart.

The stem grows to about three or four feet high, and bears at its summit from two to six flowers somewhat like those of *L. Giganteum*, but smaller, poorer, and marked on the inside with brown rather than claret-colour. The flowers open wider than do those of *L. Giganteum*, and are incomparably less beautiful. This lily is a native of Japan and China.

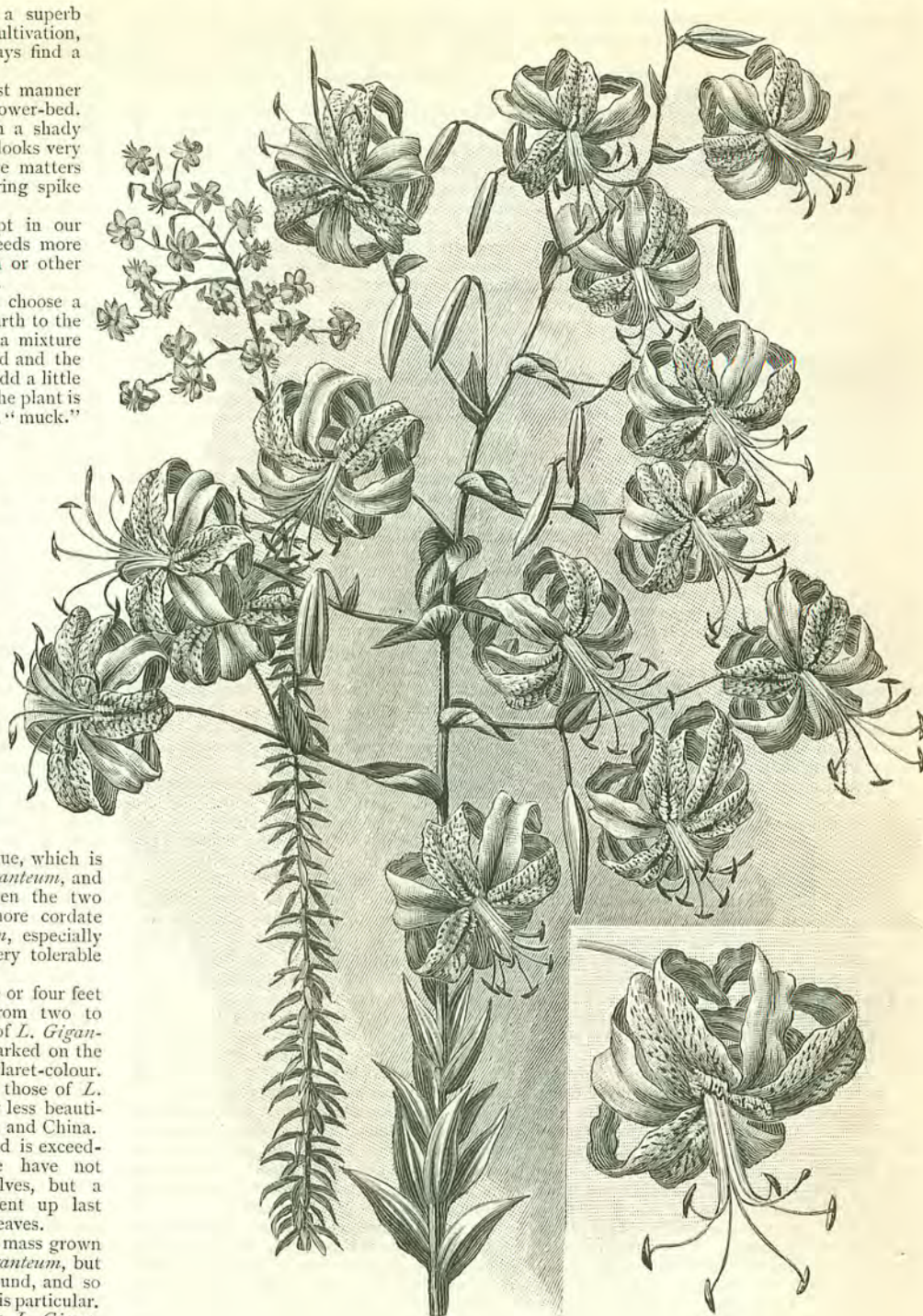
It is decidedly a scarce lily, and is exceedingly difficult to flower. We have not succeeded in flowering it ourselves, but a solitary bulb that we possess sent up last summer a fair crop of its curious leaves.

This plant would look well in a mass grown in much the same way as *L. Giganteum*, but we have never tried it in the ground, and so cannot speak from experience in this particular.

Altogether it is so far inferior to *L. Giganteum*, more difficult to grow and much less effective that we do not recommend its culture to any but enthusiasts. It is not a hardy lily and requires some protection in winter. It begins to send up its leaves very early in spring, and these must be protected at this season from frosts, and later from the wind and sun.

Both *L. Giganteum* and *L. Cordifolium* can be grown in pots, but the great size of the former and comparative poorness of the latter render both unsuitable for this form of culture.

Eulirion—beautiful lily! What an appropriate name for the superb plants contained in this group! Beautiful lilies they are indeed, beautiful in shape, in colour and in scent! What flowers will you compare with the



Lilium Henryi.

members of this group? None of the price-less orchids or choice stove plants are anything like so beautiful as these misunderstood and grossly neglected lilies!

First among the *Eulirions* stands *L. Longiflorum* and its many varieties. This together with *L. Formosanum*, *L. Philippinense*, *L. Wallichianum* and *L. Neilgherrense* form a group of plants having many characteristics in common, and all very different from the rest of the genus.

The lilies of this group are all low-growing, rarely exceeding four feet in height. The flowers which are white or pale yellow are usually solitary, but some varieties of *Lilium*

Longiflorum bear as many as five or six blossoms on each stem. The leaves are linear, smooth and numerous, scattered and are all similar. These lilies are natives of Western Asia.

L. Longiflorum, the most important member of the group named after it, is one of the best known and highly appreciated members of the genus. It is usually grown as a pot plant. But why? Why do we so rarely see this plant in the garden? Oh, it is so tender! It will not stand our winters! It dwindles so when grown in the open! Nonsense! This lily is perfectly hardy and is admirably suited to the open ground. But you do not

do well with this plant because you will choose the only variety of it which cannot stand our climate.

To most persons *L. Longiflorum* is synonymous with *L. Harrisii*. But the latter plant is only one form, and is a rather unsatisfactory form of *L. Longiflorum*. *L. Harrisii* is a variety of *L. Longiflorum* altered by having been grown in the tropical climate of Bermuda. It is a hardy lily rendered tender by coddling. It is undoubtedly a fine variety for the greenhouse, but it is nothing like so fine as some of the other forms of *L. Longiflorum*.

Although this lily is undoubtedly "long-flowered," it hardly deserves the specific title of *Longiflorum*, for it is the least long-flowered of the five plants placed in the same group as itself.

The bulb of this lily presents no deviation from the typical bulb. Indeed it is the typical lily-bulb.

The great number of varieties of this lily, though all are somewhat similar, yet possess considerable differences in regard to their growth, the size and number of their flowers and their period of blossoming.

The variety *Harrisii* is very fine. It flowers very early and produces three or four blossoms on each stem. The individual flowers are large and finely curved, but they are a little thin and green. When grown in the open, this variety sends up its shoots in February, and they are almost invariably killed by late frosts.

Another variety, called *Præcox* is similar to *Harrisii*, but more hardy. It flowers in the open in June and July.

The majority of *Longiflorum* bulbs received from Japan belong to the variety called, "*Giganteum*," but the name is hardly appropriate, for this variety is not so large or fine as some others. For the flower-garden this variety is the most generally valuable. It is tall, robust, free-flowering, perfectly hardy and exceedingly cheap.

Last year we had a small hill-side covered with these lilies, and the effect was delightful. Although we cut several the bed was always gay with blossoms. They flowered in the beginning of August, producing from two to five flowers each, of a pure rich white, not greenish like the flowers of *Harrisii*, very large and sweet scented. They were not injured by a spell of three days' rain which occurred in the middle of their flowering-time.

L. Takesima is a late flowering *Longiflorum*. It can readily be distinguished from the other varieties by the purple tint of its stem and flower buds. It is very free-flowering; one of our spikes contained six blossoms, all of which were matured.

Of all the varieties of *Longiflorum* none other is to be compared with that known as "*Wilsoni*" or "*Eximium*." This is a perfectly lovely plant. As we are writing there is a specimen of this lily on the table before us. It is in a pot and is the result of a single bulb. There are eight blossoms, not one of which is aught but perfect. The blossoms are very long and possess the scent of lilac.

Among the other varieties of *L. Longiflorum* which we have grown there is one which, as far as we are aware, is unnamed. We bought ten bulbs of "*Lilium Longiflorum, New Variety*," at an auction for half-a-crown. Most of the bulbs produced fair but ordinary results; but one which was grown in a pot was quite different from any variety that we know. This bulb sent up two spikes, each bearing two blossoms, but unfortunately one spike was spoilt by green fly. The other matured its two flowers. They were very long, almost as long as those of *L. Philippinense*, that is, about nine inches long. They were pure white at their open end, but greenish towards their attachment. The petals were

much longer than the sepals, but not so strongly curved. Whether this is the "new variety," or is a bulb of *L. Formosanum* or *Philippinense* out of place, we cannot tell.

One of the finest plants for the table that we know, both when in flower and previously, is the variety of *L. Longiflorum* with white-margined leaves. In this plant the centres of the leaves are an opaque pale green, and the margins are pure white. The buds show a similar colouration. Unlike most plants with variegated foliage, this lily has very fine blossoms of a dead white colour, but with curious transparent edges. Each bulb usually produces two flowers.

We cannot too strongly emphasise the extreme beauty of this species. Whether as cut flowers, in pots or in the garden, it is one of the loveliest of natural objects.

All lilies make good cut flowers and last well in water, but the *L. Longiflorum* is *par excellence* the lily for cutting. For all forms of floral decoration it is unrivalled, and of all flowers it is most suitable for church decoration.

During last July, on the occasion of an organ recital at our village church, we gathered a bunch of our lilies for decoration. There were about thirty flowers in all, chiefly *L. Longiflorum* and *L. Brownei*. The effect of them was exceedingly pure and beautiful, and many persons, both cottagers and those possessing gardens far larger than our own, remarked upon the grace and elegance of the lilies. Yet every person in that church could have grown those lilies, and for a few shillings' outlay the church could be decorated with lilies throughout the summer.

London florists have a pernicious habit of removing the anthers from their lilies, because they say that the pollen gets rubbed off and dirties the petals. It is a great mistake to disfigure a lily in this way. It utterly ruins the appearance of white lilies, for it robs them of the one particle of colour which is so much needed to set off the white of their perianth. If you are afraid of the pollen injuring the appearance of the lily, you can wrap the floral organs in tissue paper when the plants are being moved from one place to another. But do not spoil the flower. Anybody with the smallest appreciation for this plant would far rather see the white leaves covered with yellow dust than the lily mutilated by having its centre removed.

The cultivation of *L. Longiflorum* presents but few difficulties. In the ground it needs a well-drained spot, but is not particular as to soil. A fairly rich soil is really the best for this lily, for in such soil it does not dwindle so much as it does in a light soil.

In some places where it is otherwise impossible to flower this plant, success may be obtained by growing it in a mixture of sand, peat, and leaf-mould, so light that the hand can easily be forced below the bulbs.

This lily is more often grown in pots than in the ground. In this case do not put three large bulbs into one small pot, as is so often done. The lilies must starve in such a prison, and though they may flower one year, they will not do so again.

You must grow lilies in large pots. It is often said that bulbs are smaller when they have grown a year in pots than they were when first planted. This is not true if plenty of room be given to the bulb to develop. It is only true when two or three bulbs have been cramped in a small pot not sufficiently large to grow one bulb properly. Our *Longiflorum* bulbs grown in pots increase in size and produce numerous small bulblets.

It is unfortunately true that whether grown in pots or in the ground, *L. Longiflorum* tends to degenerate. It blossoms well the

first year, produces a wretched show the second year, and after that it fails to come up at all.

Now we think that the reasons for this are not beyond our powers to grapple with. In the first place the hardier varieties should be chosen. *L. Harrisii* always dwindles because it is a tropical plant and will not grow in our cold clime. In the second place the bulbs should be dug up every second year, separated, and replanted in fresh soil.

After all, it is no great matter if this lily will not flower more than twice, for the bulbs are exceedingly cheap and readily procurable.

Last year we obtained some bulbs of a species of lily much resembling *L. Longiflorum*, from the island of Formosa. We planted one in a pot and the rest in the ground.

Unfortunately the former came to nothing, and as our garden is so full of lilies, we were rather at a loss to identify some species. One spike which we came to the conclusion belonged to this species was intermediate in form between the *Takesima* variety of *L. Longiflorum* and *L. Philippinense*, but its blossoms were smaller than those of either. If this is the true *L. Formosanum*, it is certainly but a variety of *L. Longiflorum*, and not a distinct species.

On the mountain slopes of the north of the Philippine Islands is found a lily of very great beauty and elegance. It has not long been cultivated in England, and even at the present day it is exceedingly rarely seen in this country. We have never possessed this lily; indeed we have only once seen it in flower, but the sight of it was sufficient to engender a determination to possess it at the earliest possibility.

L. Philippinense is a low-growing lily, barely exceeding a foot in height. It never, to our knowledge, bears more than a solitary blossom, but that one blossom is so fine that its beauty makes ample recompense for the paucity of flowers.

The flower resembles that of *L. Longiflorum*, but is much longer and more tube-like. The specimen that we saw was eleven inches long. It is a very pale greenish-white, the apex of the tube being yellow. The petals are about an inch and a half longer than the sepals, and both petals and sepals are equally re-curved.

This lily, although a native of the tropics, should prove hardy in our southern countries, but it would be unwise to trust this rare lily out-of-doors. It is usually grown in a greenhouse, in a light sandy soil.

Of its cultivation we know nothing, as we have never ourselves possessed the plant.

The next lily is one of the most magnificent of the whole genus. It was discovered in the Himalayas by Hamilton in 1802, and twenty years later it was named in honour of Mr. Wallich, a great authority on lilies.

Lilium Wallichianum is the finest of the long-flowered lilies. It grows to the height of four to six feet, with a brown glossy stem and numerous lanceolate leaves. It starts growing very late in the year, the shoots rarely appearing before July.

The flowers of this species are always solitary in the wild state, but in cultivation two blossoms are occasionally produced. The flowers are very large and long, the tubes slightly curved and the mouth widely dilated. Its colour is a rich cream, the interior of the tube being pale yellow. It is very fragrant.

This is one of the latest lilies to bloom, flowering usually towards the middle of October. It is hardy in our climate, but the flowers, owing to their lateness to open, are sometimes injured by early frosts. It forms a fine pot-plant and is an admirable occupant for the conservatory. But why do we so very rarely see this plant in the conservatory?

Why cannot we have a change from the eternal *L. Harrisii*, the only lily people grow in their greenhouses? *L. Wallichianum* is an infinitely finer plant, but it is almost totally neglected.

There is a variety of *L. Wallichianum* in which the flowers are larger and of a pale primrose colour. It is known to gardeners by the name of *L. Wallichianum superbum* or *sulphureum*. As we write this, we have before us a plant which bears two buds, but we rarely see more than a single flower on each stem.

This plant should be grown like *L. Longiflorum*, but it likes a somewhat richer soil. It must be watered. In its native land it has hot rain all through its growing season. In our climate, a dry July or August, the two months in which the plant grows most rapidly, kills it, and this is the reason why this lily is

so very seldom grown. Be this lily in the ground or in a pot, it must be thoroughly saturated every day from the time that it first shows its spike, till the buds change from green to white. When this latter change has occurred, a copious drenching with liquid manure is of great service.

The last of the long-flowered lilies is *L. Neilgherrense* from the Neilgherry hills. This plant resembles the last, but its flowers are longer and larger though not so fine in colour. This plant bears the longest flowers of any lily, extra fine examples being upwards of a foot long. This lily will not grow well out of doors and should be grown in a conservatory. It is a very difficult plant to manage. Amongst other things, it has a creeping stem, and if grown in a pot it often sends up a shoot which meanders about beneath the soil, and

eventually visits the light through a drainage hole, totally exhausted by its subterranean peregrinations.

It is said that this lily should be grown in a black heavy loam and should be watered but sparingly; but we have not grown the plant ourselves, and so we cannot say if this treatment is likely to be successful.

The price of the bulbs of the last four lilies is very variable. All are rather difficult to obtain and are very rarely to be met with in good condition. If you can, you should get bulbs of established plants, for those imported are often ruined by their journey from the tropics. These lilies, though natives of tropical parts of India and Western Asia, grow upon the mountains, and are killed by the heat of the plains.

(To be continued.)

ANSWERS TO CORRESPONDENTS.

STUDY AND STUDIO.

CLEM.—We have just received from Miss Porter (author of an article, "How to Help the Deaf," in the February Part of THE GIRL'S OWN PAPER, 1898,) details of an interesting scheme. She has compiled a system of classes, which teach the art of lip-reading by correspondence; a new and she ventures to think, an original idea, which has obtained the approval of distinguished medical men. As you wish to learn the art, we should advise you to write for full particulars, enclosing a stamped addressed envelope, to Miss Porter, Normandy Villa, Chapel Allerton, Leeds.

MISS PORTER.—We regret that we cannot print your article in full; but as you will observe in the preceding answer, we advise our readers to send to you direct if they are interested in obtaining particulars of your scheme.

NEMO.—The tune you enclose is very sweet and pleasing. It contains a few technical errors, e.g., the consecutive bass octaves in the first line, and the omission of the third in the chord (last bar but two) which gives a thin sound. You ought certainly to cultivate your talent by taking lessons in harmony.

GEISHA.—We have read the first chapter of your story. It is graphic, but you need to study the art of composition. Take this sentence—"The gentle breeze fluttering the ribbons of her pretty morning dress; the raven black hair, loosely coiled at the back of the well shaped head; her features were regular and delicately chiselled, and her eyes, which of deepest blue, were shaded by long black lashes." The first two clauses of the sentence need a verb, though your third omission may be an oversight. The art of writing for the press needs study and practice, without which no one can hope to succeed.

LOVER OF LITERATURE.—Your letter is written in rather a stiff and childish hand, and you use bad ink. You will improve if you take pains.

ANXIOUS.—1. Your letter is a type of many that we are constantly receiving, and we refer you to a series of articles on "Self-Culture for Girls," by Lily Watson, which will give some help. In a case such as yours, we should think it would be very desirable to join the National Home Reading Union (address, The Secretary, Surrey House, Victoria Embankment). And why should you not, as you suggest, study for some examination? Write for particulars to Dr. Keynes, Syndicate Buildings, Cambridge, or H. I. Gerrans, Esq., Clarendon Buildings, Oxford. We find it difficult to recommend you special books, as we know nothing of your age or attainments. Have you read Ruskin's "Sesame and Lilies"? Tennyson's "Idylls of the King"? Scott's novels; histories of your own country and of English literature? This suggestion may do to begin with.—2. We think powders for the skin are best left alone. Prepared oatmeal is the least objectionable, and can be dusted off after use.

LAURA.—We should not consider the guitar too difficult an instrument for one with a fair knowledge of music to learn alone.

ONYX.—There is a Greek Correspondence Class which we have occasionally mentioned in this column. Address Miss Lilian Masters, Mount Avenue, Ealing. As for studying the language unaided, it is certainly a difficult task, yet it has been accomplished by others, and is worth attempting. Dr. W. Smith's *Initia Græca*, Part I., is a good grammar; but if cheapness is an object, you will probably find a selection of Greek grammars for sale at a mere trifle in any second-hand book shop. A knowledge of Latin is not essential. Many thanks for your kind letter.

GIRLS' EMPLOYMENTS.

WOULD-BE FLORIST (*Horticulture*).—To be trained in the Nurseries Department of the Horticultural College, Swanley, Kent, would occupy two years for the full course, and would cost not less than £70 a year for board, lodging and tuition. Girls who have done well during the course usually soon obtain posts. Some of these situations are as teachers of gardening at institutions, others as gardeners to private ladies or to lady gardeners. Teachers and gardener companions receive about 25s. a week with board and lodging. As ordinary gardeners they could not expect to receive more than the sum mentioned, with possibly an unfurnished cottage, but no board. Too few women have attempted to grow flowers as a means or livelihood for us to be able to say whether this kind of enterprise is to be recommended; but such success as may attend it will certainly only come to women who have some capital and a disposition to work indefatigably, denying themselves almost all social relaxation. Undoubtedly it is not a business for every girl.

IVY (*Needlework*).—Some of the large drapers employ ladies in the making of underlinen and children's clothes. But we should think that in the district from which you write there must be numerous ladies who could employ a needlewoman in repairing and altering dresses. You had better advertise in the leading local paper.

DANISH GIPSY (*Editorial Secretaryship*).—Such positions are usually obtained by ladies who have a decided talent for journalism and are active, energetic, and well educated. You are certainly at least four years too young to hope for such an appointment now. But you had better be receiving such an education and training as would qualify you for a secretaryship of any kind when you are grown up. You should study French, German, English history and geography, composition, shorthand, type-writing and book-keeping. If you do all this, by the time you are nineteen or twenty you would have become one of those girls for whom employment societies have no difficulty in finding an engagement. There is no "writers' union" so far as we are aware. It is possible that the Incorporated Society of Authors, the Institute of Journalists, or the Writers' Club may be meant. You might find it helpful to join some amateur literary society.

MERMAID (*Stewardess*).—You should call at the offices of the Peninsular and Oriental and the Orient Steamships Companies, and inquire whether there is likely to be any vacancy for a stewardess. The companies, however, generally know of a good many suitable women for such positions. The duties of a stewardess, about which you inquire, are to wait on the lady passengers. A certain amount of experience in hospital nursing is regarded as a strong recommendation.

MISCELLANEOUS.

MARGERY inquires why four-wheeled cabs are called "Growlers." It would be quite reasonable to attribute the name to the loud rumbling noise they make, their construction being of an inferior kind, and the windows ill-fitting. But it is also a fact that "to growl" is an early form of English to denote "to crawl," and a "crawler" is a name applied to empty vehicles of either two or four wheels, the driver of which is seeking a "fare." This term "growler" came into use about the year 1860.

H. E. B.—In Welsh, a double "l" is pronounced as if preceded by "th," as "Thlandudno"; but the usual pronunciation of that name in English is "Llandudno."

WATER-NYMPH.—In England, "Rosebud" would have been quite right in entertaining her sister's friend till her return home; but in a foreign country it may be otherwise, and etiquette might require a young girl to retire from the room after proposing that she should await her sister's return, and informing him of when it would be, or asking him for any message he might wish to leave. As to the infamous practice of "throwing vitriol in a person's face," it is for the purpose of blinding them and burning the face! It may be well to observe that the only way to prevent the burning of the skin from any accidental contact with vitriol, is to wipe it off quickly with a dry cloth, and dust the place over with flour or chalk, and carefully avoid the touch of any liquid. In the case of the eyes, we fear nothing could be done, as they are wet.

ETHEL.—A girl is never "introduced to a gentleman"—it is the reverse. The man should find some remark to make to her, and she has only to reply. You should not say "Good evening" when introduced to each other, and certainly neither should say "I hope you are quite well." All you have to do when a presentation is made, is to bow and smile pleasantly, and reply to whatever remark he may make, and then say something in the same connection.

T. N.—Wear gloves when going to dinner, or any evening reception or entertainment. When to a dinner, you remove them when you sit down to table. We can never promise the publication of an answer at any specified time, although it may be written at once, as the number to be answered is great, and all must await the finding of space.

ANXIOUS INQUIRER.—In the case you name, our Lord quoted a proverb (St. Matt. xxiv. 28), in explanation of which we will make a quotation from the *Annotated Paragraph Bible*, published at our office—"As quickly and surely as the vulture scents out the carcase, so quickly and surely will the ministers of vengeance find out a people ripe for destruction. Where then you see consummate wickedness, you may expect to see speedy and severe punishment."

MOTHERLESS.—Your mourning, on both accounts, may be left off now. Your writing is very good. We cannot promise the immediate publication of our answers to correspondents.

MARGUERITE.—You write a nice hand, but you evidently write slowly. We thank you for your kindly expressed opinion of our paper.

PIANO.—If the keys of your piano have become (not "gone") brown, rub them with fine "glass-paper," and then with a chamois leather.

NANCY.—A lotion of one-third of sal volatile to two-thirds of water is good for mosquito bites; so also, it is said, is rubbing with a raw onion.

CURIOSITY.—It is by no means necessary that a clergyman, or pastor of any denomination, should ask a girl to work in his parish, or amongst the members of his congregation, previously to making her an offer of marriage!

INQUIRER.—From your description, we think the coin is a second issue of a gold seven-shilling-piece. It bears a laureated bust, facing to the right, and "*Georgius III. Dei gratia*" on the obverse; and on the reverse, a crown with date below, from 1801 to 1813, encircled by the motto, "*Britanniarum Rex, Fidei Defensor*." The value of these coins varies from 8s. 6d. to 12s. 6d.

B. S. and WATTLE BLOSSOM.—The mahogany side-board is probably French-polished, and naturally this would show a white mark, were any heat applied to it. To French-polish again would remove the mark, but nothing else that we are aware of would do so. The hostess simply bows to her chief lady guest to indicate the time for rising from the dinner table.

go back to Verdun? What if they find out that you have helped me to get away?"

"They will not find out, M'sieu. It was known that I should leave Bitche that night—and my friends will have diverted suspicion from me. Moreover, it is no such hard matter to make a little disguise of myself—if need be."

Then they reached the farm, and Roy found himself among friends, ready all to shield him for Jean's sake. It was decided that he should work as a boy upon the farm, sufficiently to draw no attention upon himself, since the waiting for a passage might be long. Roy was willing to be or to do anything, if only he might at last escape to England.

The farmer's eldest son, a soldier by conscription in the army of Napoleon, had been a prisoner in England; and he, like Roy, had made his escape, getting safely back to France. Roy, immensely interested in this story, plied the farmer and his wife with questions as to the experiences of the young fellow in an English prison—questions which they were not loath to answer. They had, of course, the whole story at their fingers' ends.

It was at a place called "Norman's Cross," that their Philippe had been confined—somewhere not far from the eastern coast of England. About seven thousand prisoners of war, chiefly Frenchmen, were there kept under close surveillance. The prison and the barracks were built on high land, healthy enough—yes, certainly, as to that, the farmer said—with plenty of fresh air. And the prisoners were guarded more by sentinels in all directions, than by fortifications, walls, moats, or dungeons.

"Not like Bitche!" interjected Roy.

Well, no, certainly—Monsieur spoke correctly. The place—Norman's Cross, and the old farmer made a funny sound of these two words—was not precisely like Bitche. As to arrangements, Philippe had had no fault to find with the food provided. It was good of its kind; and cooks were chosen from among the French prisoners by themselves, being paid for their work of cooking by the English Government. Also, when Philippe fell ill, he found the hospital well managed. A school for prisoners was kept going; and several billiard-tables as well as other amusements were provided.

But, ah, the poor Philippe, he had been unhappy in captivity! Was it not natural? Had not Monsieur himself experienced the same? He had longed to be free—to return to his own country once more. And though on the whole the prisoners had been fairly well treated, at all events in that particular place, yet of course there had been cases of roughness and of harsh treatment. Moreover, there was much to make a prisoner sad—the desperate gaming, the perpetual duelling, among his fellow-prisoners were of themselves sufficient.* So, after more than a year of captivity, always more and more hopeless, with no token of the war drawing to a close, he had at last resolved to make his escape. And, through great dangers, privations, difficulties, he had actually succeeded.

Where was Philippe now? Ah—pour cela—he had rejoined his regiment, and was again at his old occupation. Fighting, fighting—who could say for how long? Perhaps to be again taken prisoner, and once again to be at Norman's Cross! Who could foretell?

(To be continued.)

* All this from a Frenchman's account.

OUR LILY GARDEN.

PRACTICAL AIDS TO THE CULTURE OF LILIES.

By CHARLES PETERS.



Lilium Brownii.

JAPAN is the home of lily culture. Not only are the Japanese Islands rich in native lilies, but their inhabitants, imbued with a love of flowers, which to our Western minds is almost

incomprehensible, have introduced into their country all the prominent plants of Eastern Asia. And with a knowledge which we possess in but a small degree, they have modified and beautified both their own plants and those that they have introduced from foreign countries.

The culture of the lily in Japan has reached a high stage of development, and most of our best varieties of lilies owe their origin to Japanese gardeners.

Foremost among the lilies of Japan is the one which bears the name of its native place. *Lilium Japonicum Odorum* is one of the very finest of the lilies, and in the strength of its perfume it is absolutely without a rival.

The true *L. Japonicum*, or, as it is now more generally termed, *L. Japonicum Odorum* is but little known in England, but an allied species, *L. Brownii*, is well known, and though not grown so frequently as it should be, it is deservedly popular.

It has always been a question whether *L. Japonicum* and *L. Brownii* are but varieties of the same plant. Certainly there is a great similarity between them, but there are points in which the two plants differ and these differences are very constant.

In Dr. Wallace's little book on lily culture the differences between these two lilies are detailed in tabular form, and for ourselves we are fully convinced that *L. Brownii* and *L. Japonicum* are distinct but very nearly allied species.

The bulb of *L. Japonicum* is white or yellowish, but never brown. The scales are narrow and are very loosely connected with the base. The bulb is always rather loose and the scales divergent, but good bulbs have a very firm centre. The bulb of *L. Brownii* is usually reddish and the scales are broad. The base is very small, and the whole bulb has a curious and very characteristic shape.

The shoot of *L. Japonicum* is greener and

blunter than that of *L. Brownii*. The shoot of the latter lily very much resembles thick asparagus.

During growth it is easy to distinguish between these two lilies, for the stem of *L. Japonicum* is green, while that of *L. Brownii* is brown.

There is not very much difference in the flowers of these lilies. *L. Brownii* often bears three blossoms, and in one case, recorded in *The Garden*, five blossoms upon one stem. Two blossoms are very frequently present on the same stem. We have never known *L. Japonicum* to bear more than one blossom on each shoot.

The flowers of *L. Japonicum* are a rich



Lilium Longiflorum.

custard yellow while they are opening, but in the fully expanded blossom the colour of the interior is a rich creamy white. The pollen is reddish brown. The exterior of the perianth is thickly streaked with chocolate colour. The scent of this flower is very strong, resembling that of the Jasmine.

The flowers of *L. Brownei* never show the deep yellow colour which is present in the partially opened buds of *L. japonicum*. The pollen is deep brown and the exterior of the blossoms is more streaked with brown than are those of *L. japonicum*. We cannot recognise any difference in the smell of these two lilies, but Dr. Wallace contends that the smell of *L. Brownei* is only moderately strong, like that of *L. Longiflorum*; while other authors have denied to *L. Brownei* any scent whatever!

There is but little reason in the naming of any plant nowadays, and the foolish and unscientific methods of naming plants after some person who has discovered, or described, or who has often done nothing more than bought a specimen of the plant, is unfortunately very rife. Scientists have tried and are still trying to put down this absurd nomenclature, but they are thwarted in every way by gardeners and others. Mr. Jones, Nurseryman, has just flowered a lily. He does not know its name. What does he do? Does he trouble to find out if the plant is known to science? Not he! He labels it *Lilium Jonesii*. Mrs. Smith, a very aristocratic lady and a great patron of Mr. Jones, comes along, sees, admires and buys that lily. She asks Mr. Jones to send her the plant, and it arrives labelled, "*Lilium Jonesii* var. *Smithii*." So much for gardeners' floral nomenclature!

Can anyone tell us who is the Mr. Brown after whom *L. Brownei* is named? As far as we can find out that gentleman is quite unknown to science. Perhaps some wag might suggest that the name originated through ignorance. The man who discovered the lily—or rather who thought he had discovered it, for the plant has been cultivated in Japan for centuries—perceiving that the colour brown was very characteristic of the flower, wanted to name the lily with a Latinised version of "The Brown Lily," but his classical education, having been somewhat neglected, he knew not the Latin for brown, so he named the plant *Lilium Brownei* or *Brownei* to cloak his ignorance.

As no one is certain of the origin of the name *Brownei*, so no one knows the original habitat of this species. All our specimens come from Japan, but it is very doubtful whether it is a native of that land.

Have you ever seen a clump of *L. Brownei* in flower? Last July there was a bed of this lily at Kew in full blossom, and as the weather had been remarkably suitable to the plant, and its blossoms had not been injured by rain, the sight of that bed was one of the loveliest sights we can remember.

This lily has lately become more popular than formerly, but it is very far from enjoying that universal admiration which it amply deserves. One reason for its comparative scarcity is its tendency to degenerate, a tendency which we strongly suspect is due to improper culture.

It is usually stated that this lily should be grown in very light sandy soil. We have grown it in such a soil and also in a strong, well-manured, peaty loam—a soil as different from a light sandy soil as can be well imagined. Those lilies grown in the light soil became diseased and died without flowering. Those in the heavy soil grew strong and very tall, never showed any trace of disease, and each spike produced two perfect blossoms.

The depth of the colour of the exterior of the blossoms varies with the amount of light in which the lily is grown. Specimens grown

indoors usually have a pure white exterior. The blossoms are very tender and are often cankered by rain at the flowering time.

Both *L. Brownei* and *L. japonicum* make admirable pot plants, and their blossoms last a long time as cut flowers.

The variety of *L. Brownei* called *Leucanthum* lacks the brown coloration of the blossoms. We cannot distinguish it from the ordinary variety when grown indoors. There are several other so-called varieties.

All the lilies which we have described are natives of Asia, but now we come to one which inhabits our own continent.

Lilium Candidum, the white, or Madonna, or St. Joseph's Lily, is unquestionably the lily. And when we mention the lily, this is the plant which is usually meant.

Common as this lily has been in English gardens for very many centuries, it is not a native plant, and has very rarely escaped from cultivation. We have only once seen this lily growing wild. This was in a wood in Surrey, and it was probably a garden escape. There was but one spike of blossoms in 1895 when we first saw it. Next year it produced one solitary flower, but since that period it has entirely disappeared.

Why this lily has never become wild in England is not very obvious, for though it never seeds in our Island, it very rapidly increases by off-sets formed round the bulbs, and hundreds of these must be thrown away yearly.

Perhaps it is that the lily is not really hardy in our climate, and though it will flourish when tended in the garden, it is unable to hold its own in the strife with our native plants.

Where the white lily will grow, it is one of the loveliest of garden plants. Always better where it has been long established and undisturbed for years, it is in old gardens that this lily is seen in perfection.

Unlike the lilies we have already considered, the *Lilium Candidum* bears from four to thirty blossoms on each stem. It is true that one very rarely sees an umbel of more than ten blossoms, but a plant bearing only this number is a very marked feature in a garden.

This lily differs from every one of its colleagues in many points. Its bulb which we figured in our first part is very characteristic. About the end of October the white lily begins to throw up an autumn crop of leaves. This alone marks it off from all other lilies, for though one or two species do sometimes send up a stray leaf or two in autumn, none of them do so regularly. But with *L. Candidum* the autumn leaves are never absent, and they remain green and fresh till long after the flower shoot has appeared.

The flowers of the white lily are very different from those of *L. Longiflorum* and its allies. They are very short, widely-expanded and very numerous. The pollen is yellow. The flowers have a pleasant though rather strong perfume.

Though this plant has been grown for centuries in gardens, there are but few varieties of it.

One variety named *Aureo-Marginatis* has its leaves bordered with golden-yellow and the autumn growth looks very striking in winter.

Three other varieties are recognised, *Monstrosum* or *Flora-pleno*, has double flowers. But the flowers themselves never develop, the bracts becoming a greenish-white. It is an ugly and worthless plant and is deservedly neglected. The two other varieties are called *peregrinus* and *striatum*. In the latter the flowers are streaked with purple. Neither variety is of any value.

The white lily is one of the oldest of all garden plants. It was certainly cultivated by the Romans, and is in all probability the origin of the "*Fleur de Lys*."

If you turn up *L. Candidum* in any book of gardening, you will find something like this: "The *Lilium Candidum* will grow anywhere, provided the soil is of a light sandy nature." If you follow this advice, you will probably lose every one of your plants.

We cannot, alas, tell you how to grow this lily to perfection, for the simple reason that we cannot do so ourselves. We can only tell you how not to grow it and how we have obtained moderate success.

The bulbs must be planted early in autumn. It is best to plant them in late August or early September. If you defer planting till December or later, the bulbs will not produce an autumn crop of leaves, they will not send up a flower spike next season, and will probably lie rotting in the ground.

Except in very exceptional circumstances this lily will not flower well the first year it is planted, for it needs several years to accustom itself to new surroundings.

When once this plant is established and flowers well, it should never be disturbed.

The bulbs should be planted about a foot deep. Often when the bulbs have been in the ground for some years, they will work their way to the surface. Even if this happens it is best to leave them alone, if they flower well. But if the blossoms begin to deteriorate, take up the bulbs and replant them.

Now about the soil. *L. Candidum* won't grow in sand and does not like a sandy soil at all. It must have a rich moderately heavy loam of good depth. It is in the black heavy loam of the Thames valley that we have seen this lily at its best. It likes lime in the soil, but dislikes peat.

If this lily is grown in light sandy soil, it grows beautifully till about the middle of May. Disease then commences and kills all your lilies with rapid strides, so that out of one hundred spikes you may get perhaps three half-rotten flowers. This has been our experience of growing this lily in the orthodox way, and we have lost very many hundreds of flowers through following the generally received opinions.

Lilium Candidum makes a fairly good pot-plant, if the pot in which it is placed is very deep.

This plant is grown in nearly every cottage garden, and is very cheap to purchase. About ten shillings a hundred is the ordinary price of the bulbs.

Since we wrote our account of the diseases of lilies we have heard of a new method of treating the bulbs of *Lilium Candidum*, when year after year the spikes become diseased. The bulbs are washed and then baked in a cool oven. We have heard that though this method does, to a certain extent, check the disease, it very materially interferes with the growth and blossoming of the plant.

Resembling *L. Candidum* in the form and number of its flowers, but differing from it in almost every other particular, the next lily, "*The Lily of Washington*," is a species which taxes the resources of the lily-growers to their utmost.

Lilium Washingtonianum is the first lily which we meet with from the great Western Continent. It inhabits California and the North West, growing upon the rocks and mountain slopes of its native home.

The bulb of this lily is different from that of any other. It is long, oblique, and rhizomatous. Its peculiar ovoid shape is due to the fact that it grows at one end only. The flower-spike always appears from near the growing end. The far end of the bulb gradually decays as the near end grows. Bulbs of this lily are often five or six inches long and two inches broad. The only other lily which bears a bulb in any way resembling this is *L. Humboldtii*, a native of the same places.

The leaves of *L. Washingtonianum* are

arranged in whorls, and are quite different from any other Eulirion except *Lilium Parryi*, the next species.

The flowers are borne in a dense raceme. Good specimens often bear as many as twenty or thirty blossoms, but only two commonly but one or two flowers are borne on each stem.

Individually the flowers are not much, being small, thin, and of a pale purple, fading to the deeper shades of purple. The pollen is yellow. There is a variety of this species, called *Purpureum*, in which the flowers are upright. In this type the upper flowers look upwards, the middle ones are horizontal and the lower flowers droop. Although the variety is called *Purpureum*, the flowers are by no means always purple, but vary from pure white to deep violet.

Beautiful as this lily is when seen in perfection, we cannot regard it otherwise than as a fraud. It is one of the most difficult to grow; it is very liable to disease; it rapidly degenerates, and it is expensive. The bed of these lilies at Kew was the least effective of all the groups of lilies.

If you wish to grow this lily, you must carefully study its native climate, and the habits of the plant when at home.

It is a moderately hardy lily, but will not stand excessive frosts. Neither will it stand great heat. For this reason the bulbs should be planted **very deeply**. In its native land the bulbs live at the depth of twelve to thirty inches below the surface, and though we do not recommend so great a length as the latter,

twelve inches should be the minimum depth at which the bulbs are planted.

A very rich soil is required, but sharp drainage is essential. The latter may be obtained by mixing gravel with the soil.

Whatever you do, the lilies will probably fail, or if they do live, they will give you one or two poor blossoms to repay you for your trouble.

In pots the culture of this lily is rather more satisfactory. The pots must be of good depth and sharp drainage is essential.

The last group of the Eulirions contains three lilies which possess drooping bell-like flowers.

Lilium Parryi is an American species coming from the same place as *L. Washingtonianum*.

It is a little lily with citron-yellow coloured blossoms and deep orange pollen-grains. The blossoms, of which there are rarely more than three on each stem, are small but pretty and curious.

L. Parryi should be grown in the same way as *L. Washingtonianum*. It is a difficult plant to flower, but is more satisfactory than its showy ally.

It is rather a rare plant and has not been grown in England for very long.

The second of the drooping Eulirions is also yellow. It is a native of Nepal and takes its name, *L. Nepaulense*, from its native place.

This lily in its growth resembles the other Himalayan lilies, especially *Lilium Wallichianum*. It is not very commonly grown in this country, but it is an interesting species

and deserves more attention than it has received.

It grows at the height of five and ten thousand feet, and so should prove as hardy in our gardens as *L. Giganteum* has done. But its hardness, as far as we are concerned, remains to be proved.

The flowers are about the size of those of *L. Candidum*, but are of a deep yellow colour, deeply striped and spotted on the interior with rich purple. The flowers are drooping and somewhat resemble those of *L. Giganteum* in form, but they are shorter, thicker and more revolute. We have never seen more than two flowers on one stem. It requires similar treatment to *L. Wallichianum*.

In *The Garden* for April 19th, 1890, was reproduced a plate of "*Lilium Nepaulense* var. *Ochroleucum*." If this plate is accurate, this variety is indeed a fine lily, being yellowish-white on the exterior with a deep primrose inside. To our minds this plate recalls *L. Brownii* more than any other variety of lily that we are conversant with.

We must also go to a plate in *The Garden* for the last of the nodding Eulirions. This lily is *L. Lowi*, and hails from Burmah.

It resembles *L. Nepaulense* in shape and growth, but the flowers are white, densely spotted with rich claret-colour on the interior.

We have never seen the plant, and though we tried hard to obtain a bulb of this species we were unsuccessful in our quest. So of its culture we know nothing.

(To be continued.)

IN THE TWILIGHT SIDE BY SIDE.

By RUTH LAMB.

PART VI.

CORN OR STRAW.

"Let us draw near with a true heart."
Hebrews x. 22.

I THINK we may spend an hour profitably, my dear girl friends, in contrasting the fair-seeming part of our lives with that which is real, true, and thorough.

It is good to be real in all things. True to the core. In thought, word, and deed to be the same human being as we wish our friends to think us. On this subject of reality I will tell you a story to begin with.

I dare say most of us joined in harvest thanksgiving services after we returned home last autumn; probably many of you joined in preparing for them, and in arranging the offerings sent by the congregations.

It was in autumn, but not this year, and in city and village churches the "Feast of Ingathering" was being kept. Daily songs of thanksgiving were going up to the God of harvest, in acknowledgment of the bounteous provision He had made to supply the wants of the teeming millions dependent on Him for their daily bread.

A number of young people, mostly girls, were busily engaged in decorating a church for the Harvest Festival services on the following day. Flowers, fruit, vegetables, loaves of all sizes and corn in sheaves, or shaped into miniature stacks, had been sent in abundance. The poorest members of the congregation were not the least willing givers. They could not offer hot-house grapes or fruits that were costly to mature, but they brought of their best from cottage gardens and in no stinted measure. The clean, ruddy carrots, white turnips, cauliflowers in their nest of green leaves, with other homely vegetables, the best of their kind, added much to the picturesque of the offerings.

The pulpit and font were bordered with green moss on which were pretty devices in scarlet berries, and below these hung a fringe of oats, dainty-looking, light and graceful as lace. There was a foot of this fringing to finish when the material ran short.

"More oats wanted," said the worker. "Bring me some, please."

But none were forthcoming.

"You have used them all," was the answer.

"I cannot fill this space with anything else. The design would be spoiled. There seemed to be any quantity of oats, but this fringe takes so much. Who will give us some more?"

Nobody seemed to know and time was precious. At last a girl spoke, though in a rather shamefaced way and in a hesitating tone.

"I know who would give us a bundle of oat straw. We could pick out the best pieces and by mixing them in with the unthreshed corn, the length could be made up. There would be some undoing and working up again, but I don't think anybody would notice the difference."

There was a short uncomfortable silence, soon broken by the tremulous voice of the youngest helper present—a mere child.

"Oh, we must not, we must not do that."

It would be horrid to pretend to give the best corn that has been grown, to try and show God how thankful we are, and then for Him to see that there is ever so much empty straw amongst it. It's all very well to say that we could make the fringe look as if it were real corn and nobody would find out, but God would know, and—"

The child speaker could not utter another word. The trembling voice broke into a sob that was more eloquent than the simple words which had however gone home to the hearts of the elder ones present.

"You are right, Nelly darling," said one of these as she drew her little friend to her side and kissed her tenderly. "There must

be no ornamental shams amongst our thank-offerings to God. We should not like our neighbours to know that a portion of the fringe ought to be labelled 'Only straw,' should we?"

"No, indeed," was the answer from all the rest, and one said, "How could we bear to look at it and think that it was a miserable counterfeit? Better no fringe than straw where corn should be."

To this all the workers heartily assented. I do not remember how the little difficulty was got over, but I know it was not by the substitution of straw and empty husks for corn. I know, too, that all present learned a solemn lesson from the child who, out of the fulness of her heart, spoke on the side of truth.

It was indeed a question of truth or untruth, reality or pretence, which had so stirred the young speaker. The child's words and the circumstances under which they were uttered have often recurred to my mind during intervening years, and I believe that in repeating them I shall have done good service to you, my dear girl friends.

Does not the very thought of that little scene suggest self-examination? Are we not inclined to ask ourselves how much of what we may well call "straw" is mingled with our offerings to God? When we kneel with every appearance of devotion and even our lips repeat the familiar words of praise, is our worship always what it seems to be? Do not you and I know that often, when the knee has been bent and the head bowed in apparent reverence, and when our lips have moved in prayer or response, or our voices have rung out tunelessly in psalm or hymn, our hearts have had little share in our seeming worship?

It has been a poor, mechanical thing in which true reverence, penitence, faith and the spirit of love, thankfulness and praise, have been almost entirely absent. It has seemed to our neighbours like true corn, but has been mostly empty straw. I say mostly, because it

with the prompt cheerfulness which from the first had marked him out in Moore's eyes. "If only Captain Keene—"

"Ay! You are anxious about Keene."

"Yes, sir. I've been able to find out nothing."

"So Napier informed me. I was passing this way, and I have looked in to tell you. He is prisoner."

Roy drew one hasty breath. Till that moment he had not realised how heavily the fear had weighed upon him of other than imprisonment. To be aware that Jack was still in the land of the living meant much.

"Two French prisoners brought in this afternoon have told us about him. His leg was wounded and his right arm broken, and when helpless he was taken. Already, they say, he has been sent some distance beyond their lines."

"Thank you, sir!"—gratefully. "I'm glad to know. It might have been worse."

"You are writing home, perhaps. Make light of his wounds. I hope he is not in any danger."

"Yes, sir. I am writing to my sister."

Moore stood for a few seconds, lost in deep thought. Then, glancing up, he met the concerned gaze of Roy's frank grey eyes. Not frank only, not concerned only, but full of unmistakable boyish adoration. In response, Moore's hand was laid on Roy's arm, with one of those quick gestures of overflowing kindness, which went far to enthrall the hearts of those about him.

"I hear no report of you but what is good. Keep on as you have begun. You are treading worthily in Ivor's steps."

Roy's power of speech failed him, with something which went far beyond ordinary joy. This—from Moore himself! Despite Jack's misfortunes, Roy's world grew instantly radiant.

Moore smiled again at the boy's look, yet he sighed. There were some in his force, and not young fellows only, of whom he could not have spoken in such terms—some who gave the rein to bitter discontent at having to retreat, and who did not do their utmost to preserve discipline. But they were not in the Reserve.

"We may hear of Keene again before

long. Give your letter to Napier, and it shall go with the first despatches that are sent on."

Then he was gone. Roy, after seeing him off, drew out the latest page of his scribbled journal-notes, that he might write down those priceless words, while they were fresh in his mind. Not that he ever would or ever could forget them. But some day he would show them to his father and mother—to Denham—to Molly.

Having thus turned anew to his journalising, he found time for two more brief entries during days following.

"Jan. 8. Near Lugo.

"Nothing further as to Jack. I fear that for a while I shall see and know no more of him. I wonder much where he may be sent. Both yesterday and to-day General Moore has challenged the French to battle; but they do not accept his challenge.

"Jan. 10. Betanzos.

"We came hither by a night-march from Lugo, thus evading the French, who w^d seem to have been somewhat awed by Sir John's fearless defiance of 'em at Lugo. For some hours our rear-guard was not Harassed as usual, and the Enemy's advanced guard did not get up with us till twenty-four hours or more after our start. Since we left our camp-fires burning, they doubtless did not know till dawn that we had given them the slip. It may be too that, after that defiance, they were in no vast hurry to follow."

On the day following this entry, the 11th of January, Coruña was reached.

As they drew near to the coast, Moore, quitting at last his post with the Reserve, went forward, passing regiment after regiment, and anxiously scanning the distant sea for the transports which he hoped to find in waiting.

But they were not there.

During the greater part of a fortnight he had been incessantly at work, conducting this arduous retreat, bringing his Army through dangers and difficulties innumerable. Perpetual fighting had been the order of the day. Yet not once had the Regiments of the Reserve, either horse or foot, been beaten; not once had the rear-guard quailed.

Some seventy or eighty thousand soldiers, trained veterans of Napoleon,

at first under Napoleon himself, and then under two of his most experienced commanders, had striven hard to overtake Moore, to outflank him, to cut off his little force of twenty-three thousand men. But they had been baffled.

More than two hundred and fifty miles of rough country had been traversed, in bleakest winter weather; and the Army reached Coruña, somewhat lessened in numbers, it is true, yet absolutely unbroken. And though baggage had had to be abandoned or destroyed, for lack of means to convey it further, though a few small cannon had had to be left behind for the same reason, not a single British gun had been captured in fight, not a single standard or military trophy of any kind had been taken.

In after years there were men who lightly criticised this retreat, calling it needless, and wondering why Moore had not made a stand, or had not continued his advance.

Small wonder was it that Charles Napier, who in the Reserve had gone through the whole, and who from actual knowledge understood it all, should, in the face of these after-criticisms, break into bitter and passionate words in defence of that beloved Chief, under whose eyes he had fought. And though he was somewhat hard upon the people of England, not only because they had no means of knowing the true state of affairs, but because also it was but a section of them who criticised thus, yet one can well understand what he must have felt.

"Had Moore sacrificed an Army, instead of saving one, he would have been perfect in the eyes of his country. Nothing but his unpardonable humanity, which made him fancy England cared as much for her soldiers as he did, caused him to act as he did act. Had he saved his own life, and contrived to have twenty thousand bayoneted—and I firmly believe he was the only man in our Army who could have saved us—he would have done a job for which England would have made him anything he wished. Alas, for himself, he thought of everything but himself! Fortunately, another Hero has come up. But we want both!"

So wrote Charles Napier, himself one of England's Heroes.

(To be continued.)

OUR LILY GARDEN.

PRACTICAL AIDS TO THE CULTURE OF LILIES.

By CHARLES PETERS.

A FEW years ago the culture of the lily received a great impetus from the arrival in England of "the golden-rayed lily of Japan."

Some bulbs were sent over to us from Japan which were said to be of a very large lily which grows wild upon the Japanese Islands.

Fabulous prices were charged for the bulbs, and of those who had paid through their teeth for these rare bulbs very few obtained any recompense.

The first consignment was a failure, but

the gorgeousness of the plant was sufficient inducement to the Japanese growers to send over another batch.

The bulbs rapidly became cheaper, and the lily at once rose to a foremost position amongst garden plants.

The *Lilium Auratum*, or golden-rayed lily, is perhaps the most popular member of the genus. Its flowers are immense, indeed, it has the largest flowers of all the lilies. Of fine colour, producing many flowers on each

stem, of great hardiness and of moderate ease to cultivate, it is not surprising that this lily should have attained its high popularity.

The *Lilium Auratum* is the most variable of all the lilies. There are eight named varieties. But even these are liable to considerable variation. If you were to plant one hundred bulbs, probably not more than three or four would be absolutely similar.

This extreme variability is very remarkable, when we remember that this lily is a wild

flower, but rarely cultivated until recently either in Japan or elsewhere.

Vast numbers of the bulbs of this species are sent over to England from Japan every year, so that the species is by no means difficult to obtain. The bulbs are large, heavy, and if good, they are very compact. They are of a yellowish or purplish colour.

When you buy bulbs of *L. Auratum*, do not go for the mammoth bulbs. These are very rarely the best, though always the most expensive. Buy small, very heavy bulbs, and purchase them from November to January.

The shoots of *L. Auratum* begin to show about the middle of March, though this lily, as indeed is every other, is very variable in this respect. The season has a lot to do with it. In a warm rainy year the shoots often appear in February. The time when the bulb was planted and the depth at which it was placed also affect the time at which the lily shows above the soil.

When the shoot has appeared, it grows with great rapidity. We had a specimen in our garden which grew nine feet in twelve weeks! You could almost see it grow!

In connection with the shoots of lilies, there is an important point to notice, which is often overlooked and leads to misconception, unless it is fully appreciated. Lily shoots present extraordinary differences. The shoot of *L. Umbellatum* or *L. Candidum*, when it first appears, is like an exceedingly thick head of asparagus. From this many people imagine that if a lily shoot is not thick and solid, it is not going to produce a flower. This opinion is quite wrong. Some lilies, especially *L. Speciosum*, never start with a thick shoot, but show above ground as a thin lanky growth.

L. Auratum begins as a thin shoot, but it rapidly gains in size and strength if circumstances are favourable.

As in every other particular, *L. Auratum* is exceedingly variable in the height to which the stem grows. We have had in our garden bulbs from the same source, planted at the same time, in the same soil and position. They have all flowered well, yet some are only thirty inches high, while others tower to the height of nine feet!

The golden-rayed lily does not show its flower-buds until the stem is almost fully grown. The buds are borne on long stalks, each furnished with a single bract. From one to forty buds are produced on each stem.

The leaves of this species are long and linear in the type, but in the variety *Platyphyllum* they are very broad. There are rarely more than thirty or forty leaves, which are of a deep glossy green.

We have followed the lily to the stage when its buds become apparent. The next chapter in its history is too often one of mishaps. The strain on the plant at this stage must be enormous, and it is no wonder that such a large number of plants die at this time.

The buds develop quickly until they become the size of a large capsicum. Then they change colour, and if the weather is dry, they open in about a week.

Rain at the flowering time is the greatest enemy to this lily.

What a magnificent object is the *L. Auratum* when in full blossom! How beautiful is the wide open perianth! And what a size! Ten inches across, at the least, and fully a foot when measured from the tips of the petals! How elegantly do the goffered segments curl round at their tips! The brilliant stripe

of golden yellow running down each segment, which has given the flower its name, is exceedingly characteristic; and the brownish purple spots, curiously elevated and in places



THE GOLDEN-RAYED LILY.

(From photo by Valentine and Sons, Dundee.)

raised into a distinct spine, relieve the pure white of the background.

Proceeding from the centre of the flower are the seven greenish threads which constitute the floral organs. Each is armed with a deep brown extremity, the pistil with a trefoil, and the six stamens with crescents!

As we have said before, the flowers of *L. Auratum* are sometimes extremely numerous. We saw one plant last summer (we believe at the Royal Gardens, Kew) of one of the varieties of this species which bore thirty-seven well-developed blossoms.

But it is not the prize specimens of *L. Auratum* which are the most beautiful. Plants bearing four to six blossoms give the finest effects, for here each flower has room to fully expand, and so the extreme elegance of the blossoms can be appreciated. In plants bearing twenty or thirty blossoms on the other hand, the general effect from a distance is one of extreme luxuriance; but on closer examination the effect is not so striking, for the individual blossoms cannot be perfectly formed, and the result is often bizarre and unsatisfactory.

L. Auratum has an extremely strong scent, which though pleasant in the garden is far too overpowering in a room.

In no lily does one meet with such great variety as in this species. The blossoms are exceedingly variable; but there are some varieties which are sufficiently marked and constant to have gained special names.

There are eight named varieties of *L. Auratum*, and the difference between them is so striking that a person without previous knowledge would take them for separate species.

We append in tabular form the chief differences between these eight varieties.

All these varieties are fine, and are all worth growing; but some are expensive, and some are very difficult to cultivate.

Of all the varieties we prefer that known as *Platyphyllum*. Its fine large foliage, immense and gorgeous blossoms, and its hardy constitution, make this lily the most desirable of all. Indeed, we would put a well-grown sample of *L. Auratum Platyphyllum* in its perfection as the most beautiful of all the vegetable productions of our planet.

A few years ago *L. Auratum Platyphyllum* was a very rare lily; but last year this lily did

Name of Variety.	Shape of leaves.	Shape and colour of ray.	Colour of spots.
Type	Linear	{ Golden, $\frac{1}{2}$ in. wide	Reddish brown (numerous)
Virginale	Linear	{ Golden, $\frac{1}{2}$ in. wide	Golden yellow (numerous)
Wittei	Linear	{ Golden, $\frac{3}{4}$ in. wide	Spots absent
Pictum	Linear	{ Gold-green, tips red, $\frac{3}{4}$ in. wide	Blood red (numerous)
Rubro-Vittatum	Linear	{ Blood red, $\frac{3}{4}$ in. wide	Blood red (numerous)
Cruentum	Linear	{ Blood red, $1\frac{1}{2}$ in. wide	Blood red (numerous)
Platyphyllum	Palmate	{ Golden, $\frac{1}{2}$ in. wide	Brown (few)
Macranthum	Palmate	{ Golden, $\frac{3}{4}$ in. wide	Golden (few)
Alexandrae (hybrid between <i>L. Auratum</i> and <i>L. Longiflorum</i>)	Linear	Absent	Absent
Parkmanni (hybrid between <i>L. Auratum</i> and <i>L. Speciosum</i>)	Linear	{ Reddish, Indistinct	Red (numerous)

exceedingly well, and consequently very good bulbs can now be obtained at a cheap rate. All over the country this variety did well last year, and many were the correspondents who wrote in enthusiastic measures to the various papers about this wonderful plant, which not a few of the writers imagined they had discovered.

The variety *Wittei* is a most beautiful one, but it is difficult to grow, and is moreover rather expensive.

The red varieties of *L. Auratum* are fine in their way, but are a little crude in colour and not altogether satisfactory.

The cultivation of *L. Auratum* and its varieties does not present much difficulty. A well-drained peaty soil with plenty of sand suits it well; but the soil must not be too loose. A few lumps of clay may be placed round the plants if the soil is too sandy.

No manure should be placed near the bulbs, but a good dressing of rich old manure may be applied to the plants with advantage as soon as the shoots are a foot high.

If grown in a good soil and looked after carefully, *L. Auratum* does not degenerate, but increases and improves year after year. Both the type and the varieties are perfectly hardy.

The varieties are not all equally easy to grow. *Platyphyllum*, *Macranthum*, and *Rubro-Vittatum* are as easy, if not easier, to grow than the type. *Wittei* and *Virginale* are very difficult to do well with.

The two hybrids mentioned in the table will be described later on.

All the varieties of *L. Auratum* make excellent pot-plants.

The lily which bears the title of *Speciosum*, or showy, was formerly the most admired member of the genus. Even at the present day this lily is looked upon by many as being the finest. Personally we cannot concur with this opinion. There is a certain falseness about its blossoms and a hardness in their shape which to our minds places it far below *L. Auratum* for beauty.

Yet there can be no question that *Lilium Speciosum* is a very fine plant. It has a tremendous number of points in its favour which must not be overlooked by the flower-grower.

L. Speciosum flowers late in the year, usually at the end of September, a time when showy flowers are not numerous; too late for summer blossoms, but too early for chrysanthemums.

Although this lily is supposed to be tender, it is perfectly hardy in England. The blossoms, which are produced very freely, are not so much injured by rain at their flowering time as are most lilies. Deformity of the flowers is not very common, and the peculiar shape of the blossoms renders any slight deformity which may be present of little consequence.

Another point in favour of this lily is that instead of degenerating, it increases rapidly, blossoms every year, and gives scarcely any trouble.

L. Speciosum is a native of Japan. Both in its native land and elsewhere this lily has been cultivated for years. There is now an immense number of named varieties of this

plant; but, unfortunately, there are very many more names than there are distinct varieties.

Probably the variety we call *Rubrum* is the type of the species.

The bulbs of *L. Speciosum* are large with loose scales. The flower spike is not often so evident in the bulb as it is with most lilies. The bulbs vary a good deal in colour from white to deep purple; but the colour of the bulb is no criterion as to the colour of the blossoms. In the variety known as *Kraetzerei* the bulbs are usually yellow.

This lily first sees the light as a thin, lanky shoot. In fact, those who have grown other lilies but not *Speciosum* would at once pronounce a perfectly healthy shoot of this lily to be "blind."

When we first grew *L. Speciosum*, and saw the feeble-looking shoots appear, we felt certain that they would not blossom. But fortunately we were mistaken in this surmise, for they did blossom, and they blossomed well.

The stem of *L. Speciosum* is thin but very flexible. Indeed, the lily rarely needs a stick, as it bends before the wind. We have never had the stem of one of these lilies broken.

The leaves are broader than is usually the case in this genus. They somewhat resemble the leaves of *L. Auratum Platyphyllum*.

The flower buds grow out from the main stem, and when they are fully grown they are furnished with very long stalks. This enables us to cut the flowers singly—which is very desirable, for one can take flowers from a single plant for some weeks, removing each as it opens.

The flowers themselves are about five inches across, with the segments very much recurved and the edges beautifully curled. The colour varies from pure white to deep crimson with white edges. A green line, deeply sunk, runs down the centre of each segment, being broad at the attachments and narrowing to a point about half way down. These six green lines give the appearance of a green star, which is highly characteristic. It is most evident in the white varieties, and especially so in the variety called *Kraetzerei*. The petals which are broadest about their centre are roughened with numerous spines and tubercles. The pollen is brown.

The scent of this lily resembles that of chocolate creams. It is not very powerful in any of the varieties, while some forms are apparently scentless.

The varieties of *L. Speciosum* may be grouped under the headings of white, rose, red, and purple kinds.

All the white varieties are fine. *Lilium Speciosum Album Kraetzerei*, notwithstanding its big name, is the smallest of the white forms. But though small, it is extremely delicate in colour and shape. The green star is very conspicuous. It is, however, rather tender and requires a certain amount of care to cultivate properly.

Of the rose varieties, the "Opal" and the "Rose" are undoubtedly the finest. The former is the more beautiful in colour, but the blossoms are rather thin and straggling.

The old *Rubrum* is the best of the red varieties. It is the most prolific of all the varieties.

The deepest coloured of all is a Japanese variety, *Melpomene*. This is a very fine big flower. Its colour is blood-crimson, spotted and bordered with white. The exterior of the blossoms is pale pink. *Rubro-Cruentum* and *Purpureum* are other fine purple varieties. They differ very slightly from *Melpomene*.

Some forms of *L. Speciosum* in which the stem splits into two or three parts are called monstrous or corymbiform varieties. There are white, red, and purple monstrous forms. They are inferior to the ordinary varieties.

But little need be said of the cultivation of *L. Speciosum*. Where *L. Auratum* will grow, *L. Speciosum* will grow; and it will grow in most places where *L. Auratum* will not grow. It likes a peaty soil with plenty of sand. Water must be given freely during growth.

L. Speciosum makes an excellent pot plant, and is grown by many people in their conservatories. In fact, it shares the honour with *Lilium Harrisii* of being the only lily commonly grown under glass. As a cut flower it is very useful.

Just a word about cutting lilies. Never cut the stem down near the ground. Always leave about twenty leaves, else the bulb may suffer.

If you are going to bring lilies up to town from the country, cut the buds off just before they open. These stand less risk of damage in moving, and they will open perfectly if placed in water.

Cut lilies are thirsty plants and need a lot of water. They last from one to two weeks if plentifully watered, but die almost immediately when water is withheld. We have before warned you against spoiling your lilies by removing the anthers.

A lovely little lily is *Lilium Kramerii*. The delicate pink of its blossoms, its slender growth, its early flowering, and its fragrance render it worthy of a place in every garden.

Like most of the lilies we have described, *L. Kramerii* hails from Japan. In most particulars it resembles a little *L. Auratum*, but its flowers are totally different from any other species. They are about four inches across, of a waxy white to deep blush pink colour. The anthers are brown.

This lily flowers in June. It is not easy to do well with. It is rather tender and very susceptible to early frosts. Its cultivation is similar to that of *L. Auratum*.

Last year there was exhibited in London flowers of a new lily somewhat resembling *L. Kramerii*. It flowered at Kew in June, and we were fortunate enough to flower a specimen in our own garden. This new species has received the name of *Lilium Rubellum*, and, though it resembles *L. Kramerii*, it is undoubtedly a true species.

The flowers are small (our one was two and a half inches across), the petals have the tissue-paper look like a *Cistus* instead of the waxy appearance presented by most lilies. The colour is a full rich pink, and the anthers are yellow.

Its cultivation is similar to that of the other *Archelirions*.

(To be continued.)



OUR LILY GARDEN.

PRACTICAL AIDS TO THE CULTURE OF LILIES.

By CHARLES PETERS.

WHAT garden is complete without the good old tiger-lily? Other lilies are finer and more graceful, no doubt, but the old-fashioned tiger-lily will always hold its own in the struggle for popularity.

Although we call it an old-fashioned flower, it has not been grown in England for so very long, being unknown before this century. It made a bit of a stir, too, when it first blossomed in England. And no wonder that it did, when we see what a grand sight a bed of these lilies really is.

Lilium Tigrinum is a native of China, but it has long been cultivated in Japan, and it is from the latter country that we obtain most of our foreign bulbs.

A curious fact, which we have frequently noticed in connection with this lily, is that the size of the annual portion of the plant seems to bear no relation to the size of the bulb. In most lilies large bulbs produce fine plants, though we have seen that this is by no means always the case. But with *L. Tigrinum*

the shoot apparently bears no relation whatever to the size of the bulb. If planted in very good soil, all the bulbs of *L. Tigrinum* seem to do equally well; whereas in an unsuitable soil all seem to fare equally poorly.

The bulbs are heavy and white, with the scales very dense and closely packed.

In growth this lily resembles *L. Auratum* in some respects, and the members of the *Isolirion* group in others. The leaves are very green and glossy, and are present in larger numbers than is commonly the case with lilies.

L. Tigrinum is one of the two lilies which constantly bear bulblets in the axils of their leaves. We have seen that under certain circumstances several of the other lilies produce these aerial bulblets, but the tiger-lily invariably does so. The bulblets are deep glossy purple in colour, and are often produced in great numbers. If planted as soon as they are ripe, they will grow freely and produce flowering spikes in their second or third year.

Everyone knows the blossom of the tiger-lily. The pyramidal shape of the inflorescence, with its nodding bell-like blossoms, irresistibly suggests a Chinese pagoda, and when looking at the plant one can almost feel that it hails from China.

The segments of the blossoms of the tiger-lily are much re-curved, their tips touching their points of origin. The colour of this lily, reddish orange, is very different from that of any that we have already described, but as we shall see later, it is a very common colour among the lilies.

In the type of the tiger-lily the colour is a very fine orange, and the spots, which are very numerous, are deep purple.

The tiger-lily often bears seed in this country if the bulblets are removed. As, however, seed is the least satisfactory mode of propagating lilies, it is far better to utilise the bulblets for this purpose.

Individually, the tiger-lily is a fine plant, but its full effect is only to be obtained by growing it in great clumps. A bed of tiger-lilies is a grand sight, and it blossoms in September and October, a time when showy plants are not very numerous.

There are several varieties of the tiger-lily. That which is most commonly grown is called *splendens*,

because it is very floriferous, and the flowers are of large size, fine colour, and are thickly spotted.

Another variety, called *Fortunei*, is also very fine. It grows to the height of six feet, and the stem and buds are covered with white silky down. The flowers are very numerous, often exceeding thirty in number. They are large, less reflexed than in the type, and only sparingly spotted with large spots.

The tiger is the second lily we have met with of which there is a double-flowered variety. There are only four double lilies, and none of them possesses the elegance of the single form. The old double tiger-lily is very full and is interesting, though far inferior in beauty to the type.

There is little to be said about the cultivation of the tiger-lily. It is perfectly hardy and will grow anywhere. It prefers a rich soil, and in poor or damp spots it often degenerates.

There is a lily which resembles the tiger-lily so closely that very few people could distinguish between them unless they were placed side by side. And yet most writers on the subject have separated this lily from the tiger-lily and placed it among the *Martagon* group, a group of lilies differing extremely from the one which we are now considering.

The lily which we refer to is called *Lilium Maximowiczii* or *Pseudo-Tigrinum*. It resembles the tiger-lily very closely, but is not so sturdy in growth, and the flowers are smaller and poorer than those of the tiger-lily. There are several named varieties known.

Another lily of the same class is *Lilium Leichtlini*, the exact counterpart of the last species, only differing from it in the colour of its flowers, which are lemon yellow instead of orange. It is thickly spotted with small mahogany spots and streaks. It is a very desirable lily because of its uncommon colour, and it is not by any means difficult to grow.

Both *L. Maximowiczii* and *L. Leichtlini* require a moist peaty soil. Plenty of peat, plenty of sand, plenty of water and very little direct sunshine, are the keystones of the successful cultivation of these lilies.

At an auction last year we gave seven and sixpence for two very small bulbs of *Lilium Henryi*, a lily which has only lately been introduced, but one which is fast rising into prominence from its curious colour, its bold growth and its hardness.

Lilium Henryi is usually called the "orange *Speciosum*," but in it we can see far more resemblance to the tiger-lily than we can to *L. Speciosum*. It seems to connect the *L. Tigrinum* and *L. Speciosum*. Its growth, its leaves, its flower buds and its habits suggest a close resemblance to the tiger-lily. But the raised tubercles and spines of the blossom recall *L. Speciosum*. The shape of the blossom is nearer to that of *L. Tigrinum* than it is to *L. Speciosum*, and the colour is totally different from either.

Dr. Henry's lily blossoms late in September, or in the beginning of October. Fine examples grow six to eight feet high and produce sixteen to forty blossoms. The flowers are bright orange without spots.

Our two specimens failed to reach the height of eighteen inches, but both produced blossoms—one a solitary one, the other a pair. This is all that can be expected from bulbs at three and ninepence a-piece. We expect to do much better this year.

The hardness of this lily is unquestionable, and it needs no special cultivation.



This lily is a native of China and is at present extremely scarce. Unless you are prepared to give ten shillings for a single bulb it is not worth while to grow it. If the bulbs ever get to be as cheap as a shilling or eighteenpence each, it will be well worth growing, but at ten shillings a bulb! It is monstrous to pay such a sum for a lily which at its best is only of inferior beauty.

The lilies which we have considered so far are all remarkable for the elegance of their forms and the striking colours of their flowers. If the reader has dreamed that all lilies are equally beautiful, or, at all events, that all are of great beauty and elegance, we are sorry to have to awaken him to the sad reality that there are many lilies which are not beautiful in colour and which are extremely inelegant in form.

The next group of lilies, *Isolirion*, contains many species, in all of which the flowers are erect and the segments little if at all reflexed. They are of low growth, and the blossoms are mostly orange in colour.

This group of lilies contains many old garden favourites which, though they possess but little individual beauty, are yet pleasing in the flower bed from the brightness and size of their blossoms, and for the early period at which they flower.

There is a great sameness about the members of the group *Isolirion*, and as there are many garden varieties of most of the species, some of which are possibly hybrids, it is a most difficult task to separate the various species from one another.

We associate the lily with elegance. What, then, should we imagine *Lilium Elegans*, the elegant lily to be like? And what is the reality? A low-growing clumsy stalk bearing two or three top-heavy enormous blossoms sticking bolt upright, chiefly of crude colours! As inelegant a plant as it is possible to conceive, having about as much right to the title of *elegans* as has the hippopotamus! Where did this lily get its name from? It has another title, *Lilium Thunbergianum*, or Thunberg's lily. Which of these names shall we use? Which is the less objectionable? The name which records the chief characteristic which the plant lacks, or that concocted of a Latinised version of the name of a human being? Formerly this lily was called *Lilium Lancifolium*, or the lance-leaved lily, a name which, though it might be equally well applied to nearly every known species of lily, is yet better than either of its modern names. But we cannot use this name, for florists will persist in applying the name *Lancifolium* to *L. Speciosum*.

L. Elegans grows about a foot high, and each stem bears from one to four blossoms. The blossoms are very large, very inelegant, and short-lived. But they make up to a certain extent in colour what they lack in form.

There are innumerable varieties of *L. Elegans*, differing chiefly in the colour of the flowers. Some of the colours are very fine, others are harsh and crude.

We append a table of the colours of the best known varieties. An asterisk is placed before the most desirable forms.

L. Elegans produces both a double and a semi-double variety. We should have thought that a "semi-double" flower was the same as a single one. But it is not so. A semi-double equals a one-and-a-half blossom! That is, a double corolla of which the inner part is abortive.

Lilium Croceum. The old orange lily resembles *Lilium Elegans*, but it grows taller,

and produces a far larger number of blossoms. This is the finest of the upright orange lilies. The blossoms are large and reddish-orange in colour, spotted with black. The plant grows to about three feet high, and is very showy.

In Ireland this lily is the national emblem of the Orangemen; and when travelling in that country you can tell, so we have been assured, the political opinion of the owner of a house by observing what lilies he grows in his garden. The Orangemen are said to grow none but the orange lily, while the rest of the population cultivate only the Madonna lily (*L. Candidum*).

A variety of *L. Croceum* named *Chauvixi* is of a bright yellow colour, and is finer than the type.

This lily is found wild in various parts of Central Europe. It has been in cultivation for centuries; but lately it has almost lost its place as a garden lily, having been discarded in favour of some of the varieties of *L. Davuricum*, which are much cheaper, but nothing like so fine.

The term *L. Umbellatum* is applied to certain varieties and possibly hybrids of *L. Croceum* and *L. Davuricum*.

A very similar species is *Lilium Davuricum*, a native of Siberia. The wild plant rarely bears more than two blossoms on each stem; but in cultivation flower-spikes of twenty or more blossoms are not uncommon.

L. Davuricum is frequently grown in gardens. There is a large number of named varieties of this lily, but all the forms are very similar, and in no way deserve separate names. The plant grows to about four feet high, and produces from four to thirty flowers of a dirty orange colour.

Lilium Bulbiferum very much resembles the lilies we have just mentioned, but it may be at once distinguished from any other *Isolirion* by the bulblets which are formed in the axils of the leaves. These bulblets are large and purple in colour. Not very uncommonly bulblets form in the axils of the leaves of *L. Davuricum* or *L. Elegans*; but when they do, they are small and green.

The blossoms of *L. Bulbiferum* are like those of *L. Davuricum* on a smaller scale. The same upright position, the same poorness of form, and the same dirty orange colour,

which is so persistent among the members of the group *Isolirion*, are present in both. But the blossoms of *L. Bulbiferum* are distinctly smaller than are those of *L. Davuricum*.

If the lilies we have just described are not particularly remarkable for beauty, they are, nevertheless, very desirable subjects for the flower garden. They are showy, extremely hardy, flower in early June, when showy flowers are rare, and readily increase when once established. *L. Elegans* looks best planted in rows and borders, its low growth suiting it admirably for such treatment.

These lilies will grow anywhere, in any soil. A little peat and sand should be mixed with the soil in which these lilies are planted.

Although they will grow well enough in pots, these lilies are quite worthless for pot culture.

One of the best of the *Isolirion* group of lilies is *Lilium Batemanniae*. This plant resembles *L. Elegans* in some particulars, but its blossoms are quite distinct. They are of a rich unspotted apricot colour. The perianth is more reflexed than is commonly the case in this group. It flowers in the late summer. It should be grown in a good peaty soil.

Lilium Wallacei, a very similar species, has the flowers of a rich apricot, densely spotted with black. The bulbs of this species are very small. It requires similar treatment to the last.

Lilium Philadelphicum is an American species, and has a rhizomatous bulb. The stem produces a single blossom, dirty orange colour spotted with black and yellow. It requires a wet, very peaty soil.

Another American species is *Lilium Catesbaei*, a very curious and interesting plant. The bulb is unlike that of any other lily except *L. Avenaceum*. It somewhat resembles a fir-cone. This plant grows to the height of about a foot. It produces a single blossom, about five inches across. The segments are curiously curved and curled. Its colour is reddish orange and yellow. It should be grown in a peaty soil, but it is a somewhat tender species, and is not really suitable for outdoor culture in this country.

We have hurried through this group of lilies because the species are not remarkable either for form or for colour. They are certainly inferior to any other of the genus *Lilium*.

Variety.	Colour of Flower.	Other Peculiarities.
Type	Dirty orange, spotted.	
* <i>Van Houttei</i> . . .	Deep red, spotted black.	The best of the red varieties.
* <i>Horsmanni</i> . . .	Deep red, spotted black.	Very rare and difficult to obtain.
* <i>Aurantiacum Verum</i>	{ Pale terra-cotta, very slightly spotted. }	Best of terra-cotta varieties.
<i>Robustum</i> . . .	Dirty orange, spotted.	{ Very early. Stem covered with down. }
* <i>Atro-Sanguineum</i> .	Very deep red, slightly spotted.	Fine variety.
* <i>Prince of Orange</i> .	Terra-cotta, slightly spotted.	Inferior to <i>Aurantiacum Verum</i> .
<i>Wilsoni</i>	Lemon-yellow, spotted.	
* <i>Alice Wilson</i> . . .	Clear lemon-yellow.	{ Very curious. The best of the yellow varieties. }
<i>Bicolor</i>	Orange.	A poor form.
<i>Brevifolium</i> . . .	Dirty orange, spotted.	A poor form.
* <i>Incomparabilis</i> . .	Deep red, spotted.	{ Inferior to the other deep red varieties, but bearing larger blossoms. }



OUR LILY GARDEN.

PRACTICAL AIDS TO THE CULTURE OF LILIES.

By CHARLES PETERS.



the Madonna lily, the most familiar of the whole genus.

The fifth group of lilies, the *Martagons*, is the most extensive of all. It includes over twenty species which differ widely from each other in most particulars. The usual description of the members of this group ("perianth cernuous, with the segments very revolute, stamens diverging on all sides") is certainly applicable to all the *Martagons*, but it is equally so to the tiger-lily or *L. Speciosum*.

Most of the *Martagons* are remarkable rather for the number of their blossoms than for the size of the individual flowers. There are, however, many exceptions to this; *Lilium Monadelphum* bears blossoms in large numbers, but the individual flowers are large and showy. *L. Medeoloides* and *L. Avenaceum* bear but one or two blossoms of small size.

The prevailing colours of the flowers of the *Martagons* are yellow, orange and red. A few are purple, and one rare variety of the common *Martagon* is white.

In a former article we sub-divided this group of lilies into several smaller sections. We do not advance any scientific reason for so classifying them. The divisions are adopted merely for convenience of description.

The first of our sub-divisions is the group of lilies which we have called *True Martagons*. This group contains ten species. In all the members except one the bulb is perennial, and does not bear a rhizome. They are all natives of the Old World, being for the most part natives of Central Europe.

The leaves of the true *Martagons* are narrow, but vary in width from those of *L. Martagon*, which are three-quarters of an inch across, to those of *L. tenuifolium*, which are scarcely more than the tenth of an inch wide. In some species the leaves are arranged in whorls, in others they are scattered.

The flowers of this group of lilies are mostly small but numerous. In all except *L. Hansonii*, *L. Avenaceum*, and *L. Medeoloides*, the segments of the perianth are very revolute, which fact has given to these lilies the name of "Turk's cap," from the resemblance of the fully-opened blossom to a turbaned cap.

The true *Martagons* are among the easiest of the lilies to cultivate, but they have one or two peculiarities which would seem to negative this statement. For instance, these lilies very much dislike being meddled with. Consequently they rarely do well the first year they are planted. It is very annoying after having bought fifty bulbs of *L. Pomponium* not to have a single blossom the first season. But you have only got to wait until the bulbs have established themselves, when they will flower year after year and increase at a prodigious rate.

All the true *Martagons* like a cool loamy soil. On the whole they object to peat.

Many kinds, as the common *Martagon*, for instance, like chalk, and are seen to perfection when grown in heavy loam on a limestone bottom. The heavy, black loam of London suits the *Martagons* very well, and we have seen these lilies in greater perfection in suburban gardens than anywhere else.

First among the true *Martagons* stands the lily which has given its name to the group—*Lilium Martagon*, or the Turk's-cap lily. This lily has a very wide range, being found wild throughout Central Europe and Siberia. We have said that it also grows wild in England, but our readers can hardly expect ever to see the plant growing wild in our island. It used to be fairly plentiful in Surrey, Devonshire and the Isle of Wight, but the rage for collecting specimens has pretty well exterminated the species from our shores. It is, however, occasionally met with, especially in Surrey.

The *Martagon* lily is one of our oldest garden flowers. When once established, it is very loath to go and very free to increase, so in many gardens this lily has come up and flowered every year for centuries.

The bulb of *Lilium Martagon* is about the size of a hen's egg, and of the ordinary ovoidal shape. It is very compact and usually stained on the outside with bright yellow or purple. The leaves are of a greyish-green colour and are arranged in whorls. The flower-head is visible when the plant is but a few inches high. It consists of from four to forty little buds closely packed together. The lily flowers in July, and a well-grown specimen is a very pretty object.

The flower spike forms a perfect cone or pyramid. The blossoms are very small—about one and a quarter inches across—and borne on stalks which grow out at right angles to the main stem. These stalks gradually diminish in length as they get towards the top, thus producing the characteristic cone shape. The nodding blossoms are of a lilac-purple, splashed and spotted with claret colour. The pollen is red, the segments of the perianth are fleshy and very much curled.

There are several well-marked varieties of the *Martagon* lilies. The variety *Dalmaticum*, as its name implies, is found in Dalmatia. It is a finer plant than the type. The leaves are deep glossy green, and the flowers are very dark purple. In another variety called *Cattaneae*, the flowers are still darker, appearing in some lights to be quite black.

There is a white variety of the *Martagon* lily, a lovely little gem, which, though rare, is one of the easiest culture. It is curious that this is the only variety in the whole group of *Martagons* which bears white flowers. It is of garden origin, and is not found in the wild state.

Then there is the double *Martagon*, about the stupidest flower which owns the name of lily. It is extraordinary the rage people have for double flowers. It is very rarely that a double flower has half the beauty of the single variety. In the rose, the chrysanthemum, the aster and other composite flowers, the double varieties are indeed vastly superior to the single flowers. But to us all the double bulbous plants are incomparably inferior to the single ones. In the lilies, the double varieties are scarcely worth growing.

Lilium Martagon and its varieties should be grown in masses or as a thick border. Beyond seeing that the plants are well watered, they give no trouble and should never be disturbed.

Lilium Pomponium, or, as it is sometimes called, *Lilium Pomponicum*, is another well-known lily from Central Europe. It resembles the last in many particulars, but the leaves are linear and scattered, and the blossoms are not nearly so numerous as are those of *L. Martagon*.

From three to ten flowers are produced on each stem. The flowers are nodding with the segments much recurved, and are about an inch across. In the type the colour is a dullish-red, but there are also orange and yellow varieties.

This lily looks well in big masses, for the blossoms are very graceful, though perhaps rather disappointing for a lily.

Lilium Pyrenaicum, or the yellow Turk's cap, is by some authorities considered to be only a variety of the last; by others to be a distinct species. As its name tells you, it comes from the Pyrenees, and it is not known as a wild plant in other parts of the continent. Yet, by the way, we see that it is sometimes included among the British wild flowers from some apparently wild examples having been found in the Isle of Wight. Probably these are simply garden escapes; still it is possible that they are indigenous to that island.

Except in the colour of its flowers, the Pyrenean *Martagon* exactly resembles the Pompon lily. The flowers are slightly larger than are those of *L. Pomponicum*, and are of a fine yellow colour, spotted with purple. The outside of the tube is red.

Lately this lily has become very popular, but it is not altogether a desirable plant as the blossoms exhale a rank and disagreeable odour.

In the Japanese Islands is found a *Martagon* lily, differing very markedly from the European species, which we have just described. This lily, *Lilium Hansonii* by name, is very rare and not often seen in cultivation. But we believe that in a short time it will become a well-known and popular plant.

A well-grown specimen of Hanson's lily stands about five feet high and bears a pyramidal spike of yellowish-orange blossoms. The flowers are not nearly so much recurved as are those of the other *Martagons*. The segments are thick and fleshy, of a bright orange slightly spotted with purple. The flowers are about two inches across. From three to fifty are present in each spike.

This lily is one of the first to blossom in favourable seasons, coming into flower in the first week of June.

It is also perfectly hardy, and shows no tendency to degenerate if it is provided with suitable soil. A rich but light loam with abundance of leaf-mould and a little peat and sand is the proper compost in which to grow *Lilium Hansonii*.

Another lily from Japan, *Lilium Medeoloides*, somewhat resembles Hanson's lily, but is much smaller, rarely exceeding twelve inches in height, and the blossoms are far fewer and smaller.

L. Medeoloides is very imperfectly known. The bulb consists of a large number of small oat-shaped scales very loosely packed together. The leaves are in whorls. The blossoms are frequently upright, and for this reason the plant is often included among the *Isolirions*.

Except as a curiosity, this lily is certainly not worth growing. It is very difficult to manage, and the bulbs almost invariably rot in the winter.

Lilium Avenaceum is another Japanese species which very closely resembles the last;



A LILY-GROWER.

but the flowers invariably bend downwards, and are very slightly spotted. Like the last, it is not worth growing except as a curiosity.

Resembling *L. Pomponium* in many points, but of far smaller dimensions, and with much more brilliant blossoms is the little *Lilium tenuifolium*. This little lily inhabits Siberia and differs from most of the species in that the bulb is not truly perennial. Some authorities state that the bulb is annual, but this we do not believe to be correct. It is more likely a triennial species.

This lily must be grown from seed. Fortunately the plant produces seed in abundance, and the seeds germinate freely, often producing a flowering bulb in two years.

In this plant the leaves are extremely thin. The blossoms are about an inch across, of the colour of red sealing-wax. Rarely are more than three blossoms present on each stem. It is a pretty little flower, and makes a good pot-plant.

Lilium Callosum, the callous-bracted lily, is something like a magnified version of the last. The leaves are broader and less numerous than in *L. tenuifolium*. The flowers about an inch and a quarter across, of a vivid scarlet or orange. The bracts are thick and horny, a characteristic which has given the plant its name.

The callous lily likes a rich peaty soil, but it is very accommodating and will grow in most good soils. It is perfectly hardy, and is of little difficulty to cultivate.

We now come to a lily which will always be famous, not so much for its intrinsic beauty—though, to be sure, it is a beautiful plant—but because it is the flower which has generally been considered to be the “lily of the fields,” the only plant mentioned by name by our Saviour.

The lily to which we refer is the scarlet *Martagon*, lily of the fields, lily of Chalcedony, or *Lilium Chalcedonicum*.

It is doubtful whether we shall ever know for certain which flower was referred to by

Christ as “the lily of the fields.” Why the scarlet *Martagon* should have borne the honour for so long is difficult to see. As far as we have been able to discover, this lily does not grow in Palestine, and though of course we cannot be certain that it did not inhabit the Holy Land in the time of Christ, it is very unlikely that it did, for the lily of Chalcedony knows how to take care of itself, and it is unlikely that it would have become exterminated.

We have no real reason for supposing that the lily of the fields was a true lily—that is, a member of the genus *lilium*. Even in England at the present day we call a host of liliaceous plants “lilies,” and in the East they are very lax in floral nomenclature.

That the plant referred to was one of superior beauty is probable, but even the meanest flower would answer to the description that “Solomon in all his glory was not arrayed like one of these.”

It is commonly held now that the plant referred to was either the yellow star-lily (*Amaryllis lutea*) or else an anemone. But it may well be that our Saviour meant no special blossom, but by “the lily of the field” He intended any flower to be taken.

Before it became the fashion to “bed out” the gardens of the wealthy, the scarlet *Martagon* graced alike the palaces of the rich and the cottages of the poor. Throughout England this magnificent lily was one of the commonest of garden flowers. But when the finest gardens were turned into puzzle pictures, manufactured out of geraniums, blue lobelias and yellow calceolarias, all the fine old garden plants were rooted up and destroyed, and many plants ceased to know England as their home.

How thankful we all are that the formal garden has left us! Now it is considered in its true light, as a vulgar waste of soil.

We have returned to the old-fashioned garden, but alas! we cannot make old gardens at a day's notice. We have reinstated our old herbaceous plants, and now we are

attempting to place the lily of the fields in its old position, as queen of the flower-bed.

Unfortunately this lily is difficult to establish, though when once it is established it gives no trouble and will grow for centuries. But we do not often see it now in gardens, and it is doubtful if it will ever again become a constant inhabitant of every garden, as it was of old.

The bulb of *Lilium Chalcedonicum* is about the size of a duck's egg, and is very compact and heavy. The outer scales are stained with a bright yellow colour.

The growth of this lily is peculiar and unlike any other. Good plants grow to about four and a half feet high, and bear from four to eight blossoms in a cluster at the top.

The lower leaves of this species are long and lance-shaped. The upper leaves, which are extremely numerous, are small and linear and embrace the stem, giving the plant a curious resemblance to a Maypole.

The flowers are borne in a cluster with very short pedicels. They are of a brilliant sealing-wax red, usually unspotted, quite scentless, and about two inches across. The segments are very revolute, and altogether this lily resembles a much glorified edition of *Lilium Pomponium*. There is a variety with yellowish-orange flowers. This plant blossoms at the beginning of August.

To cultivate this lily successfully is by no means an easy matter. It delights in a rich heavy loam of great depth and with a chalk basis. It dislikes peat and manures. If it can have the soil it likes, it does best when exposed to the sun all day long. This lily rarely does well for the first year or two, but when established gives no trouble whatever. It is a native of Greece and the Ionian Isles.

Closely resembling the last lily is the nodding red lily of Carniola (*Lilium Carniolicum*). Comparing this lily with the last, we see that it is altogether smaller, the leaves fewer and the blossoms less vividly red, but spotted and usually solitary. It inhabits South Europe, and flowers in June.

(To be continued.)

SHEILA'S COUSIN EFFIE.

A STORY FOR GIRLS.

By EVELYN EVERETT-GREEN, Author of “Greyfriars,” “Half-a-dozen Sisters,” etc.

CHAPTER XI.

THE “PLYMOUTH CASTLE.”

SHEILA stood with sparkling eyes and ruffled hair on the deck of a great steamer that was slipping slowly down Southampton Water on a bright October afternoon.

She felt a hand upon her shoulder, and, turning quickly round, exclaimed delightedly—

“Oh, Miss Adene, you are really here! The stewardess said she knew you were on board; but I was half afraid you were not. I did not catch a glimpse of you anywhere.”

“I was below with my niece setting our cabins to rights, as travellers like to do before getting out of smooth water. Well, little one, you look very bright; but you are thinner than when I saw you last. I am afraid you have had an anxious summer.”

“Yes, rather,” answered Sheila. “Poor Effie was ill for a long time,

and I don't think all the doctors and specialists they called in did her any good. They tried all sorts of things for her breathing, and there was a sort of operation once, and I'm sure that did her harm. The last man who saw her said, ‘Take her out of England for the winter. Let her live out of doors and take no physic, and not see a doctor at all unless there is real cause.’ That's what I call being sensible; and I remembered what you had said about Madeira and how delightful it was there, and Effie set her heart upon going. So here we are. Uncle and Aunt Cossart, and Effie and I and her maid. Oh, I think it will be delightful! I have never been abroad. It will be charming to cross the Atlantic and see beautiful new places!”

There was a laugh from behind, and Sheila turned to meet the sunny glance from a pair of bright dark eyes, and Miss Adene said—

“Ah, here is my nephew (as he likes

to be called) Ronald Dumaresq! Let me introduce him, Sheila, my dear.”

The girl held out her hand with her pretty manner, half shy, half frank, and Ronald shook it heartily, saying—

“I have heard a lot about you, Miss Cholmondeley, from my aunt. I know all about that fire in which you played the part of heroine.”

“I!” cried Sheila, half indignant at the imputation. “I did nothing at all but shiver and shake, and feel in a most fearful fright. I don't know if that's what you call being heroic. I don't.”

“Well, but you must have a spirit of your own, I am sure! Did I not just hear you saying that crossing the Atlantic would be delightful? Not many people share that opinion, I can tell you.”

“I mean it to be delightful. I don't care if I am ill. It will be a new experience. I like to try new things.”

“If you like sea-sickness you will be

and developments, made, as it were, a pretty household chime—the child's *exuberant inconsequence* melting into Tom's boyish enthusiasms, and those rising towards Lucy's serious ideals and soberer outlook on life, and Miss Latimer's gentle pathos. Of course, to old household loves and loyalties bred from years of mutual experience, this was but as a sketch is to a masterpiece. But it was good so far as it went. And every masterpiece has been but a sketch once!

It was certainly a lovely gleam of peace and content, but Lucy knew that for her its brightness was derived from her consciousness that Charlie, in all the elation of renewed health, might now be considered fairly on his homeward way! His last letter, which had arrived three days after Tom Black's in-coming, had come from Hong Kong, whither Captain Grant had unexpectedly steered his course, owing to the unforeseen demands of a promising branch of business. They would leave that port a day or two after the letter was posted, and might reasonably expect to arrive at *Vancouver well* within the year of Charlie's proposed absence. But the *Slains Castle* herself, after despatching her business at the Canadian port, would have to return home all round by Cape Horn, thus not only unconscionably prolonging her voyage, but doing this through stormy seas at an inclement season. Captain Grant, however, had declared that he had never had such a fortunate voyage, that Charlie had been such a "lucky" passenger, and that as circumstances had broken his own promise that his ship would not be away more than a year, so on his side he would release Charlie at Vancouver, rebating from the hundred guinea fee enough to pay for Charlie's land journey by the Pacific Railway and the short Atlantic voyage by a liner from New York.

"I begin to feel that we may expect to keep our next Christmas together," wrote Charlie, "and I dared hardly form that hope while my return within that time lay wholly with a sailing-vessel, on which I find two or three weeks 'more or less' are matters of no account whatever. Now, little woman,

you and I must prepare for one more long silence. We may touch at some of the islands of the North Pacific, and then you shall get a missive; but again we may not, and then your next letter will hail from Vancouver, and I myself shall arrive on the back of it—like a postscript! I don't need to ask you to let me have letters waiting at Vancouver. Write there regularly whenever you feel inclined to have a chat with your old man, and then, whether I arrive sooner or later, I shall have a nice sequence of sweet letters to keep me company on my lonely rush across North America and the Atlantic. Remember, my wife, that before you receive this, the distance between us will be actually lessening day by day. Here's to our happy meeting hour! And God bless my brave little wife!"

Of course Lucy's heart rose high. The worst was now over, and in the glow of renewed joy she began to think it had not been so very bad. As by magic the weariness and weight dropped from her feet, her voice recovered its full, rich timbre, her eyes shone with fresh light. She said to herself that she had not been overworn or ill after all—"only anxious and depressed." And now what she had to do was to banish the thin wanness of her face before Charlie came home. As for the silvery hairs—they must stay. But she said to herself that there is beauty in silvery hairs, and she was not at all sorry to stand proven as no longer girl or bride, but as woman and matron, with every right to think and to act for herself and for others.

She was still going cheerily in the light cast by Charlie's letter, and though she had already eagerly written to Vancouver, she had not begun to feel the damping effect of the inevitable silence of the North Pacific, when an epistle came from Florence.

"DEAREST LU,—I am home from my visits, and am very busy packing us all off for Scarborough. Can't get round to see you at any hours I am likely to find you in Pelham Street." (She had quite forgotten the holidays!) "Won't you come over to me here? Please, do! Come to-morrow, as early as you can in

the afternoon, and stay to dinner and for the evening. Please wire reply. We expect only one or two friends. The change will do you good. I don't invite Hugh too, because I want you to stay, and I know you wouldn't keep him out in the night air. Surely you can leave him at home *for once*! And do remember I'm your only sister, and have got such a lot of things to show you. I've told Jem I'm writing to you; *don't* let him say you pay no attention to my invitations! (He has said that—Jem can be nasty sometimes, though he's always so polite to you!) *Do come!*

"From your loving sister,

"FLO BRAND.

"P.S.—I suppose you are always getting the best of good news from the other side of the sea?"

That palpable "afterthought" nearly made Lucy flatly decline the appeal. Yet she hesitated. This was only "Florence's way," and she might have done just the same had the original motive of her letter been inquiry after her brother-in-law and not a mere invitation to her sister. Lucy wanted to cherish family affection, so far as it was possible; and then she could well believe that Jem "could be nasty." Poor Flo!

So she got as far as to mention her invitation to her little household at tea-time.

"Of course you'll go," said Miss Latimer. "It will do you a world of good."

"Hugh and I will get on grandly while you are away," said Tom. "We've got a plan laid out already for some evening 'when mamma is busy,' but now it shall be when 'mamma is gone to a party.'"

"I can't go very early," observed Lucy, hesitating, "for I sha'n't leave home before you come from the office."

"It's a slack time, and I'll get away sharp," returned Tom, while Hugh's face, which had clouded, cleared, and he danced to and fro between his mother and his friend.

So Lucy wrote to Florence, and told her she might expect to see her between five and six next evening.

(To be continued.)

OUR LILY GARDEN.

PRACTICAL AIDS TO THE CULTURE OF LILIES.

By CHARLES PETERS.

A VISIT to the royal gardens at Kew is always a pleasant holiday. There is so much to see and admire, and so very much of what is quite new and unexpected, that all lovers of flowers must look both forward to and backwards at their visits to England's greatest garden.

We remember strolling into the gardens on a June day last year. The weather was fine and warm, and the gardens were at their very best. We had been into the various greenhouses; had duly admired the airy lightness of the filmy ferns; had marvelled at the stalky palm or the ridiculous cactus (one of the latter we can never forget, for it bore a

great pink blossom on what might have been mistaken for a savage's club!) We had seen the great leaves of the Victoria lily, with its huge flower-bud not yet open; we had viewed with interest the curious sacred bean, and had been half-stifled in the dense atmosphere of the tropical orchid house. But it was not among the rare productions of the tropics; it was not in the greenhouse in which the choicest of flowers are exhibited in tasteful combination; it was not among the curious and beautiful orchids that the finest flower of June was to be seen.

No! The finest plant which flowered in

Kew in that June was to be found in an open bed behind the great palm-house. On turning towards the rosery when leaving the tropical palm-house, our attention was arrested by a sheet of dazzling gold. We approached the spot and found that the object which had brought us thither was a bed of the great Caucasian lily or *Lilium Monadelphum*.

There was nothing in any part of the gardens to equal this bed of homely, hardy lilies. It was perfectly lovely! The great yellow bells hanging in pyramidal masses were as elegant as they were gorgeous, and had the plant been growing in a hot-house it

would have been looked upon as one of the choicest productions of the tropics.

It was by no means the first time that we had seen this lily; but never before had we seen it in such perfection. Each flower-spike was perfect and bore from two to thirty blossoms.

Of all the Martagons, *L. Monodelphum* and its varieties is unquestionably the finest. Indeed, in none of the groups of lilies will you find more than two or three which will beat this species for splendour.

It is in the higher reaches of the Caucasus and the western parts of Persia that this lily is at home. And surely there can be but few finer sights in nature than a great mass of these lilies growing on a hill-side.

Lilium Monodelphum is one of the most characteristic of all the lilies. It grows to the height of four or five feet and bears a great pyramid of large, bright, canary-coloured blossoms, tinged with purple at the base and slightly spotted with black. The pollen is yellow. Though this lily is placed with the Martagons, it has but little in common with the lilies we considered last month. The flowers strongly recall *Lilium Nepaulense*. They are very long and but slightly recurved, hanging downwards like yellow bells and swaying gently in the breeze. This plant has a very strong scent, which, though pleasant in the open ground, is intolerable in a room.

This is one of the few lilies which bear seed freely in England. In some seasons every blossom will be succeeded by a long six-sided pod. The seed, however, takes very long to grow.

In many ways *L. Monodelphum* resembles *L. Auratum*. One of these ways is the extreme variability to which both are subject.

The colour of this species is usually of a bright canary yellow; but we have seen specimens of a very pale lemon colour with very few spots. Another not uncommon variety has deep almost saffron-coloured blossoms.

Then there is great variety in the size and number of the spots. One variety, called *Szovitsianum*, is very freely spotted, while the type is often quite free from spots.

The colour of the pollen is also variable. In *Szovitsianum* it is chocolate colour, whilst in the other varieties it is yellow.

Even the shape of the flowers is variable, some varieties having blossoms far more recurved than others.

It is usual to divide the various varieties of *L. Monodelphum* under two heads. The first contains the typical or monodelphous forms. Here the blossoms are but little recurved, of a deep yellow, with yellow anthers. These varieties are said to flower two or three weeks before the second group; but we have not observed any difference in this respect.

The second or *Szovitsianum* group produces fewer flowers of very variable colour, but richly spotted with black. The pollen is chocolate colour, and the blossoms are more recurved. The flower buds are also visible as soon as the shoot is above ground, whereas in

the former group the buds are enclosed till the lily is two or three feet high.

Unless the soil of your garden is exactly suited to it, you will find that *L. Monodelphum* is by no means an easy flower to grow. But surely its extreme beauty is sufficient inducement to give a considerable amount of trouble to establish this fine plant. And when you have once succeeded in making it at home, it will not give you much further trouble, for it is perfectly hardy and increases moderately when it once gets a fair start.

Rarely, if ever, does this lily do well during the first and second years after it has been shifted into new surroundings. It will come up right enough the first years, but the whole

The nearest ally to *L. Monodelphum* is the very rare *L. Polyphyllum*. This lily is extremely beautiful, but is so uncommon that but few of our readers are likely to have seen it. We have only once seen it ourselves, and have never been able to obtain a bulb.

The bulb of this species is totally different from any other. It is long and thin, being composed of numerous long lance-shaped scales. As far as we know, the bulb is always pure white.

In growth this lily resembles the last, but it rarely reaches a greater height than three feet.

The flowers are longer but more reflexed than are those of *L. Monodelphum*. They are of a beautiful creamy-white colour, curiously streaked with dark purple markings.

It was formerly grown under the name of *Fritillaria Polyphylla*, but that it is truly a lily is unquestionable. It is a native of the Himalayas, and we should think that its culture ought to be similar to that of *L. Giganteum* from the same region. It is said to be perfectly hardy.

The North American Continent has given us many species of lilies. Up to the present we have only described three: *L. Washingtonianum*, *L. Parryi*, and *L. Philadelphicum*. These three lilies are certainly very different from any that the Old Continent has given us. But we now meet with ten species, very nearly allied, and yet in no way resembling any others.

These are the swamp lilies, a sub-section of the Martagons, the ten members of which are all confined to North America. And they are a very characteristic group of lilies.

In most of these species the bulb is annual, being produced at the extremity of a thick perennial rhizome. Why all the American lilies (except three) should bear rhizomes and annual bulbs, while all the Old World species bear perennial bulbs without rhizomes we cannot say, but there must be some important reason to account for it.

There is only one American lily which bears a globose bulb in any way like the ordinary bulbs of the Eastern species.

This lily is *Lilium Columbianum*, a perfect little gem in its way.

In all the swamp lilies, the leaves are arranged in whorls, the stems are tall and slender, and the blossoms are nodding, only slightly recurved, and of a yellow or orange colour, usually spotted more or less thickly with black or purple.

The following are the ten species of swamp lilies, together with the districts from which they hail:—

1. *Canadense*, North-East America.
2. *Superbum*, Canada to Georgia.
3. *Parvum*, Western United States.
4. *Maritimum*, Coast of California.
5. *Roeslii*, Rocky Mountains.
6. *Grayi*, (?)
7. *Pardalinum*, California.
8. *Californicum*, California.
9. *Columbianum*, Oregon.
10. *Humboldtii*, Sierra Nevada, Cal.



A PRESENT FOR FRIENDS.

shoot will suddenly die down about the middle of May. What causes this queer behaviour we really cannot say.

L. Monodelphum wants a very heavy loam with a little clay in it. The loam must be of great depth, and should, if possible, rest on a chalky base. A little lime should be added to the soil, but peat should be excluded and sand should only be placed round the bulb. When the flower-buds show, a good thick top-dressing of old stable manure may be applied with advantage.

This lily should never be disturbed when once it has done well. It is better to place the bulbs very deep, say eighteen inches or so below the surface, and then the supernatant soil can be thoroughly dug and enriched every winter.

As a pot plant, this lily rarely does well, for it is almost impossible to give it sufficient depth of earth in a pot.

By some authorities *L. Parvum*, *L. Maritimum*, *L. Roezlii* and *L. Grayi* are considered to be merely varieties of *L. Canadense*; and *L. Californicum* is said to be only a variation from *L. Pardalinum*, but we prefer to consider them as separate species.

And there are some authors who consider *Lilium Bolanderi*, *L. Pardalinum Michauxi*, *L. Pardalinum Warei* and others, which we consider to be merely varieties, to be distinct species.

The culture of the swamp lilies is perfectly simple, and if attention is paid to one or two details, failure is extremely improbable.

The swamp lilies want peat; they will grow in a mixture of peat and sand. But to thoroughly establish them a compost of peat, leaf-mould and sand should be used. If to this can be added the dried mud from the bottom of a ditch, so much the better. These lilies are always thirsty, and can never get too much water. They like a shady swampy spot, some of them preferring the drier banks of streams. The bulb must be handled with great care, for both the bulb itself and the rhizome are very tender, and the numerous thick fleshy scales which compose them are readily detached by rough handling.

To all the above rules for growing the swamp lilies, *L. Humboldtii* and *L. Columbianum* are exceptions.

By far the best known of this group of lilies is *Lilium Canadense*, the Canada Lily. This is the only one of the group which can be considered as an old garden plant. It has been grown in England now for a long time, and was the fifth lily to be cultivated in our island.

This lily is a very pretty flower, not gorgeous nor pretentious as are so many of the genus, but quiet and homely. It grows about four feet high; the stem is very slender, and the leaves are whorled. In the middle of summer it bears from three to fifteen blossoms like small stars. They are bright orange in colour, thickly spotted with deep purple, and about an inch and a half across. Their chief beauty lies in the way they hang, for they are very gracefully swung. The segments are not reflexed, and the plant more nearly resembles the *Eulirions* than it does the typical Martagons.

The lily is subject to great variety, especially in the colour of the blossoms, which vary from lemon yellow to brick red. There is a great number of named varieties, but they are all more or less inconstant. By some authorities nearly all the other swamp lilies are considered to be merely variations from *Lilium Canadense*.

Although, as we have said, the Canada lily has long been cultivated in England, it does not always take kindly to our soil, and very often it speedily degenerates, and in a few years disappears. But if the soil is really to its liking, it will often flourish in England. Like so many of its congeners, it is very impatient of removal, and when once established it should be left alone.

A fitting companion to the last, but of greater vigour and considerably superior dimensions is the *Lilium Superbum* of the United States of America.

This species is often confused with the last, but it can readily be distinguished by the form of its bulb and rhizome; its greater vigour and more robust growth; the shape of the flower buds, which is triangular in *L. Canadense*, and rounded in *L. Superbum*; and by the blossoms themselves, which are far larger, very revolute and marked with a green star formed by the green ribs of the segments. In this respect *L. Superbum* resembles *L. Speciosum*. It also produces more blossoms than does *L. Canadense*, and flowers later in the season.

The root of this lily is typical of those

species which bear annual bulbs and perennial rhizomes. The bulb is small, about as large as a walnut, composed of thick, short, fleshy scales, very closely packed together, but easily detached by a rough hand. It closely resembles a young fir-cone, but is more spherical. The rhizome or sucker is about as thick as a man's little finger, and from one to four inches long. It is hard, but brittle, and regularly dotted with small scales.

As far as we have been able to follow the life history of the underground portions of rhizome rooted lilies, we have come to the conclusion that in all the bulbs are annual and are produced in the early autumn when the flower spike is dying. It is usually stated that in some species, i.e., *L. Canadense*, the bulbs are annual; but in other species, such as *L. Superbum*, the bulbs are perennial. Perhaps this is usually the case, but it certainly is not so with our lilies. We do not say that the old bulb is entirely destroyed when once it has flowered; a little nucleus is left which sometimes develops afresh into a new bulb. But the tendency of all the American lilies is to run along under the ground, shifting their position every year.

The flowers of *L. Superbum* are numerous. They much resemble those of *L. Canadense*, but are larger, more recurved, and less graceful. They also have the curious green star above referred to. This alone is quite sufficient to distinguish the species from the other swamp lilies.

It is a fine lily, and of course a fine plant, but it is not superb, any more than *L. Elegans* is elegant.

The culture is the same as that of *L. Canadense*. It is, however, a much more satisfactory species to grow.

Lilium Parvum, the little lily, is a graceful plant bearing numerous small blossoms of a full orange, spotted with black.

Lilium Parvum is another misnamed lily, for it often grows five feet high, which is far taller than most lilies. It sometimes bears as many as fifty blossoms.

Lilium Maritimum resembles the last, but the blossoms are far fewer, and are of a brick-red colour. Both these lilies resemble *L. Canadense* in their growth and habits. The bulb of *L. Parvum* resembles that of *Lilium Pardalinum* on a small scale.

Lilium Roezlii, another similar species, bears yellow flowers richly spotted with purple. The bulb is rhizomatous. We figured the bulb of this lily in our October part. *L. Grayi* we know little or nothing of. We possess a root, but it seems reluctant to flower.

The panther lily, or *Lilium Pardalinum*, is the finest of the swamp lilies, Humboldt's lily perhaps excepted. This lily has so much in its favour that it should be grown by everyone who possesses a soil suitable to its culture.

The bulb of this lily is very long, and the rhizome is covered with scales, so that it is impossible to say where the bulb ends and the rhizome begins. It is yellowish in colour, often suffused with pink.

In growth it resembles *L. Superbum*, but the inflorescence is quite distinct. The flowers are large; the segments deep red for their outer half and bright orange at their base, thickly spotted with black. In the centre of the red portion of the segment is a large black spot bordered with yellow, which gives the whole flower a very attractive appearance. The petioles, or stalks which support the blossoms, are very gracefully curved, a characteristic very well portrayed in the accompanying drawing. Each stem will produce from three to eight blossoms, each about two and a half inches across.

This is another very variable lily, and a large number of its varieties have received

special names. The variety *Augustifolium*, figured in our illustration, is the one commonly grown. *L. Pardalinum Warei* has flowers of an unspotted apricot colour. It is extremely rare and expensive. *L. Bourgoyei* and *L. Pallidifolium* are varieties which our knowledge of lilies is insufficient to differentiate.

Perhaps a variety of *L. Pardalinum*, but more probably a distinct species, *Lilium Californicum* is distinguished from the last lily by the fewness, but large size, of its blossoms, the greater brilliance of its colour, the abrupt transition from the red to the orange portions of the perianth, and the browner colour of its spots.

L. Pardalinum and *L. Californicum* require the same treatment as the other swamp lilies except that they must have more leaf mould, more of the mud from the ditch, if you can get it, and less peat and less water.

The last two of the swamp lilies of North America stand apart from those which we have just considered, as they differ very greatly in almost every particular.

Lilium Humboldtii, by far the finest of the swamp lilies, is a plant which every lover of gorgeous flowers should grow if he can. We said "if he can," for we cannot grow it! The plants do very well till the blossoming season approaches, and then they die suddenly. Yet the bulbs are not diseased, and the roots are chiefly normal.

The bulb of this species is long, oblique, and perennial. It does not bear a rhizome, but it much resembles that of *L. Washingtonianum*.

In its growth and in its leaves this species resembles *L. Washingtonianum*, but its blossoms would surprise anybody who had never seen them. They are so different from any other flower in nature except the little lily which is described below. Ten, twenty, forty, even fifty blossoms may be borne by one stalk. These flowers are about four inches long, completely recurved, but the tips of the segments stand away from their bases on a pedicel of four or five inches length. In colour they are a flaming orange-yellow, quite a different kind of yellow from that of *Monadelphum*, spotted and splashed with a rich purple brown.

We wish we could grow this lily, but unfortunately this is one of our failures. It cannot be helped, we must try again; perhaps we shall discover how to grow it in time.

From the last paragraph it follows that our opinion upon the cultivation of this lily is not worth much. But we can tell you what not to do and what we intend to do next year.

Do not grow this lily in peat. We imagined that the same treatment as we gave the other swamp lilies would suit this one; but it did not. We believe that it will do best if treated as we advised for *L. Washingtonianum* or *L. Monadelphum*. Still, we cannot grow the lily ourselves, and we are not the only people who have difficulty with it. If you want to know how to cultivate this lily, you must discover the way yourself.

If you look at *L. Humboldtii* through the wrong end of a telescope, you will get a very fair idea of *Lilium Columbianum*, the last of this group of lilies. It will not, however, be a perfect resemblance, for the flowers of the smaller species are more revolute and not nearly so richly spotted. The bulb of this lily is ovoidal in shape. Indeed, it is the only lily found in America which possesses an egg-shaped bulb.

This lily is not difficult to cultivate, a rich peaty soil with plenty of ditch mud suiting it admirably. It flowers in the middle of June, and is altogether a most satisfactory and beautiful plant.

(To be continued.)

TO NIGHT.

COME, solemn Night, and spread thy pall
Wide o'er the slumbering shore and sea,
And hang along thy vaulted hall
The star-lights of eternity;
Thy beacons, beautiful and bright—
Isles in the ocean of the blest—
That guide the parted spirit's flight
Unto the land of rest.

Come—for the evening glories fade,
Quenched in the ocean's depths profound;
Come with thy solitude and shade,
Thy silence and thy sound;
Awake the deep and lonely lay
From wood and stream, of saddening tone;
The harmonies unheard by day,
The music all thine own!

And with thy starry eyes that weep
Their silent dew on flower and tree,
My heart shall solemn vigils keep—
My thoughts converse with thee;
Upon whose glowing page expand
The revelations of the sky;
Which knowledge teach to every land,
Of man's high destiny.

For while the mighty orbs of fire
(So "wildly bright" they seem to live)
Feel not the beauty they inspire,
Nor see the light they give;
Even I, an atom of the earth—
Itself an atom 'midst the frame
Of nature—can inquire their birth,
And ask them whence they came.

OUR LILY GARDEN.

PRACTICAL AIDS TO THE CULTURE OF LILIES.

By CHARLES PETERS.



Lilium Auratum.

THERE are but few lilies left for us to describe, and these are of very little importance to the flower-grower.

Lilium Concolor and *Lilium Davidii* are usually considered under the Isolirion group, but they present such numerous deviations from that group of lilies that we have decided to make a group of them alone.

Lilium Concolor is a pretty, little, very variable lily. It is more suitable for a button-hole decoration than for anything else, but it has a pleasing effect when grown in great

masses. This species has a very small bulb with few, acute, oblong scales. The plant grows to about a foot high, and bears from one to three flowers about an inch and a half across, and of a deep crimson colour spotted with black. The flowers open very wide, and the filaments are shorter than in any other lily. Of the great number of varieties of this lily we will describe two. The first, named *Buschianum*, or *Sinicum*, grows taller, has larger leaves, and larger and more numerous blossoms, which are of a fine crimson.

The second variety, *Coridion*, is by far the handsomest of the group, bearing large flowers of a bright yellow spotted with brown. *Concolor* is a native of Western Asia. Its culture is very simple, and it is perfectly hardy.

Of *Lilium Davidii*, we only know that it was discovered by David in Thibet; that it grows about two feet high, and bears bright yellow flowers spotted with brown. We also know that there is a plate of this species in Elwes's Monograph. The plant is practically unknown to everybody.

The last group of lilies, Notholirion, contains two or, as we have it, three species which are not very well known, and it is a little doubtful whether they are lilies at all. Formerly they were considered to be fritillaries, and certainly they bear more superficial resemblance to those plants than they do to the lilies.

Most authors include *Lilium Oxyptalum* among the Archelirions, because its flowers are widely expanded. But as in every other particular it differs completely from that group of lilies, we have separated it from *L. Auratum* and *L. Speciosum*, and placed it among the Notholirions, to which it bears considerable resemblance.

This little-known lily was formerly called *Fritillaria oxyptala*, and bears more resemblance to the fritillaries than it does to the lilies. The bulb is oblong, with but few lance-shaped scales. The stem grows to the height of about fifteen inches, and bears about twenty or thirty leaves, resembling those of our native snake's-head fritillary in every

particular. One or two blossoms are borne on each stem. They are pale lilac, star-like blossoms, with numerous little hairs on the bases of the segments. The petals are acutely pointed. The anthers are scarlet.

This plant is a native of the Western Himalayas. It is very uncommon in gardens. We have never possessed it, and know nothing of its culture.

The two lilies *Lilium Roseum* and *Lilium Hookeri* are now included in this genus, but they have been referred first to the lilies, then to the fritillaries, then back again to the lilies, and so on. And it is very doubtful if they are even now in their last resting-place.

The bulbs of these lilies are invested in dense membranous tunics like those of the daffodil. *Lilium Roseum* grows to about two feet high; *L. Hookeri* rarely reaches half this height. The leaves are said to bear bulblets in their axils. Six to thirty little nodding bell-like blossoms of a deep lilac colour are produced by *L. Roseum*, but *L. Hookeri* rarely produces more than eight blossoms. But little is known of these lilies. They are both natives of the Himalayas, and are said to be somewhat tender. They may be grown in a mixture of rubble, old bricks, sand, and leaf mould.

We have never grown them ourselves, as it is practically impossible to obtain bulbs. We have seen *L. Roseum* in blossom, and were not particularly impressed by it.

Had we been describing roses, chrysanthemums, hyacinths, or any other flowers which are highly cultivated, we would have dismissed the natural species with a very brief description, and turned our chief attention to the artificial varieties and hybrids.

But with lilies it is different. As we have seen, there are very many natural species. Indeed, the species almost outnumber the varieties, and these latter are rarely very different from the parent species. As regards double-flowered varieties, we have seen that only four lilies bear them, whereas nine-tenths of the cultivated varieties of roses and chrysanthemums are double.

And when we pass on to consider the hybrid lilies, we are likewise astonished at their paucity. Why are hybrid lilies so uncommon? Let us see if we can fathom the mystery.

One reason is that the majority of lilies never bear seed in England. Many, even in their native climes, bear seed but rarely, the natural method of increase being by bulbets. Another reason with us is the exceeding difficulty of raising lily-seed. They take so long to germinate that most seeds are destroyed before they show any sign of life.

Still, we believe that there is a great future for the hybridisation on lilies. Perhaps you would like to try it yourself. Then proceed as follows.

Let us cross *Lilium Auratum* with *Lilium Speciosum*. Choose well-grown specimens of each lily. Let the buds develop till they begin to change colour. Then remove every bud except one—the best—from each plant. The remaining bud of the *L. Auratum* must then be slipped open, and the anthers removed. It may then be allowed to open naturally, but it must be carefully protected from insects of any kind, lest one of these should bring to it a pollen grain from another blossom of its own species. When the *L. Speciosum* has matured its pollen, cut off the anthers, and rub the pollen upon the style of the *L. Auratum*.

Three things may now happen. The first, the most likely, is that the flower will die, and will not produce seed. The second is that the plant will produce seed, but these, when they have been grown into flowering bulbs, will reproduce unaltered *L. Auratum*. The third—last and least likely possibility—is that the plant will produce seed which, when grown and flowered, will produce blossoms which partake of the characters of its two parents. In other words, these last are genuine hybrids.

It is extremely unlikely that more than one per cent. of the seeds will produce a blossom which bears the marks of both parents. The majority will either die, or else be simple *L. Auratum*, without anything to show that they are hybrids.

Even with those rare plants which definitely show their hybrid origin, a great diversity of colouring may be observed. But the colour of the parents is very variable, and after a few

years the hybrid lily loses the characteristics of the *L. Speciosum* and becomes merely a reddish variety of *L. Auratum*.

But there are two hybrid lilies which are quite constant, and as they are two of the finest of the whole group, they are well worth growing.

Lilium Alexandrae, the Japanese "Uki Ure" or "Hill Lily," is in all probability a hybrid between *Lilium Auratum* and *Lilium Longiflorum*. We say "in all probability," for we are not quite certain that it is not a true species.

There are some persons who think that one white lily is much like another. But put side by side *L. Alexandrae*, *L. Longiflorum*, and *L. Candidum*. Are they alike? Could anyone mistake one for another? Surely not! They differ in every detail—even in colour. The long trumpet of *L. Longiflorum* is delicate greenish-white. The Madonna lily is like porcelain; and the hill lily possesses a rich milky hue, somewhat resembling the colour of *L. Brownii*, which we so much admired.

And in shape how different they are. One is a long and regular trumpet, another is a shallow cup, and the lily we are specially considering is widely opened with its segments slightly curved, the whole blossom resembling a gigantic white star.

Lilium Alexandrae is not a big lily. It grows about two feet high and bears from one to four blossoms. These blossoms are very large, of a rich milky white, resembling in shape those of *L. Auratum*. The pollen is chocolate colour. The fragrance of this lily is very great. On the evening of a hot day in the middle of August last year we could detect the scent of a bed of these lilies, then in full bloom, at the distance of over one hundred yards. Its scent is rich and full, something between that of jasmine and vanilla.

The culture of this hybrid is not difficult. It is best grown in pots, for it is very sensitive to rain at its flowering period. In rigorous districts this lily should be grown in a cool greenhouse, but in the south of England it will grow to perfection out of doors. The soil should consist of equal parts of peat, very finely broken, leaf-mould, and sharp sand. It wants a very large quantity of water.

Few lilies have given us greater pleasure

than *L. Alexandrae*. It is one of those plants which are so striking that it is impossible to forget them when you have once seen them. It is so very delicate, so pure and so fragrant.

Doubtless most of our readers are acquainted with the old Nankeen lily. This is a very old favourite, and is usually thought to be a true species, but for all that it is almost for certain a hybrid between *L. Candidum* and *L. Chalcidioniam*. This plant rejoices in a goodly number of names, of which *L. Testaceum*, *L. Isabelinum*, and *L. Excelsum* are the commonest.

This lily is unknown in the wild state, and its origin is very obscure. It is an English garden hybrid, but who first raised it or possessed it is unknown.

Yet it is a very striking lily, growing to the height of four or five feet and producing a great cluster of buff-coloured blossoms. In general features it resembles its parent *L. Candidum*, but the flower shows a distinct connection with the Martagons. Its colour certainly is not derived from either of its parents. A mixture of scarlet and pure white should give pink; but *L. Testaceum* is of a yellowish-buff colour. The lily which it most nearly resembles is *L. Monadelphum*; but though very fine, it is nothing like so splendid as that queen of the Martagons.

This lily is distinctly a cottage-garden flower. Except in that situation it is never seen. Yet it is common enough in old cottage-gardens, and a more befitting flower can scarcely be imagined. It looks old—in keeping with the place which it enhances by its presence.

The cultivation of this lily is the same as that of *L. Candidum*. It does not do well until it is well established, and it has a particular objection to growing in modern gardens.

Lilium Parkmanni is the hybrid between *L. Auratum* and *L. Speciosum*. Genuine specimens bear blossoms somewhat intermediate between the parent species.

There is also a hybrid between *L. Hansoni* and *L. Martagon Dalmaticum*, called *Lilium Dalthansoni*.

These four hybrids are the only ones which deserve to be mentioned, and of these only the first two are worth a place in the flower-garden.

(To be concluded.)

CHOCOLATE DATES.

HAVE you ever tasted chocolate dates? If so, these directions will be almost needless to you, for I fancy that you will not have stopped at a taste, but will have tried and found out a way to manufacture them for yourself. But so far as I know, these dates are, as yet, quite a home-made sweet, and they are so delicious and so wholesome that they ought to be more widely known. Here then is the recipe. Any sort of dates and any sort of chocolate may be used, but the best results are got from the best materials in confectionary even more than in other work. Take then a pound of Tunis dates, either bought in the familiar oblong boxes or by the pound. Leave out any which are not perfectly ripe; the soapy taste of one of these paler, firmer dates is enough to disgust anyone with dates for ever. Wipe the others very gently with a damp cloth (dates are not gathered by the Dutch!), slit them lengthwise with a silver knife, but only so far as to enable you to extract the kernel without bruising the fruit. Then prepare the chocolate. Grate a quarter of a pound of best French

chocolate, add an equal weight of fresh icing sugar, two tablespoonfuls of boiling water, and mix in a small brass or earthenware saucepan over the fire until quite smooth, only it must not boil; last of all add a few drops of vanilla.

Then put your small saucepan inside a larger one half filled with boiling water, just to keep the chocolate fluid until all the dates are filled. Take up a little of the mixture in a teaspoon, press open the date, and pour it neatly in. There must be no smears or threads of chocolate if your confectionary is to look dainty. When about a dozen are filled, gently press the sides together, and the chocolate should just show a shiny brown ridge in the middle of the date. Place on a board in a cool place to harden; they may be packed up next day.

Almost as nice as chocolate dates are nougat dates. The foundation for the nougat is the same as for American candies: the white of one egg and an equal quantity of cold water to half a pound of sifted icing sugar, all mixed perfectly smoothly together. Then chop equal

quantities of blanched walnuts, almonds, Brazils, and hazel nuts together, mix with the sugar in the proportion of two thirds of nut to one of the sugar mixture, and leave until next day in the cellar. By that time the nougat will be firm enough to form into kernels by gently rolling between the hands; if it sticks, your hands are too warm. It is best to do this part of the work in the cellar. Having stoned and first wiped your dates, put in the nougat kernels, gently pressing the sides together; they will harden in a short time, and very pretty they look packed alternately with the chocolate dates in fancy boxes. Tunis dates do not keep good much longer than two months, the grocer tells me; we have never been able to keep them half that time to try! Of course, you can use the commoner dates, which are very good to eat, but hardly so nice to look at as the others, because on account of their more sugary consistency it is impossible to fill them so neatly as the moister Tunis dates. Tafilat dates are somehow too dry and solid to combine well either with nuts or chocolate.

OUR LILY GARDEN.

PRACTICAL AIDS TO THE CULTURE OF LILIES.

By CHARLES PETERS.

*Lilium Tigrinum* (var. *Fortunei*).

WE will conclude our remarks on the noble family of lilies by some notes and tables, which will be found of great value to those who wish to cultivate these beautiful flowers.

We told you in the first part of this book that we kept a note-book—a kind of diary—in which we kept a record of our work among the lilies. We advise everyone who intends to grow these plants to follow our example, and get a large manuscript book to put down the “proceedings” of her lilies. The following points should be noted. (1.) The name of the species and variety. (2.) The name of the person from whom you obtained the bulb. (3.) The day on which the bulb was planted, with a note as to the condition of the weather at the time. (4.) The circumference of the bulb, and a brief description of it, stating whether the flower-spike had begun to grow, or the new roots had appeared, or if any scales were mouldy or diseased. (5.) The soil in which the lily was planted. (6.) The date of the appearance of the shoot. (7.) The date of flowering. (8.) A brief description of the full-grown plant and its individual members. (9.) The condition of the bulb when exhumed.

Here is an example of the record of a bulb of *L. Auratum*.

“*Lilium Auratum*, var. *Platyphyllum*, bought from Mr. —. Potted on the 3rd of November, 1897; a warm, dry day. Bulb seven inches in circumference; new roots just appearing. A sound, heavy bulb. One mouldy scale removed. Washed in lime-water; sprinkled with charcoal and potted in an eight-inch pot in a mixture of fine peat (one part), rich leaf-mould (two parts), a large handful of sand and a few small lumps of clay. Shoot appeared March 17th, 1898; grew rapidly. No disease. Flowered September 4th, 1898; five blossoms, all perfect, largest

eleven and a half inches across. No rain when in flower. Lasted in blossom till September 20th, 1898. Bulb when exhumed quite healthy, showing two crowns nine and a quarter inches in diameter. Exhumed and replanted October 21st, 1898.”

If you have a record like this of every lily, you possess a most valuable book on the culture of lilies; and, as we said at first, the cultivation of these plants is little understood.

A thoroughly authentic, practical record will help you more to become proficient in the art of lily-growing than any amount of impracticable theory.

Now some words to those who are growing lilies in pots. As we have seen, most species grow well in pots. All do well except the following, which are unsuitable for pot culture. The reason why they are suitable is also given.

L. Cordifolium (too straggling).

All the *Isolirions*, because they are not sufficiently ornamental for pot culture.

L. Humboldtii. This lily does not do well in pots; why we do not know.

L. Martagon, *L. Pomponium*, *L. Pyrenaicum*, *L. Chalcedonicum*, *L. Monodelphum*, *L. Testaceum*.

The last six lilies are unsuitable for pot culture because they require to become established before they will condescend to flower.

Most lilies grown in pots can be kept in the open air or in a room, or anywhere you please, but the following require protection of some sort:—

Half-hardy species. These should not be put out in frosty weather; otherwise they may be grown out of doors. If you have planted them in the ground at a sufficient depth, they will stand all but a very severe winter. *L. Giganteum*, *L. Cordifolium*, *L. Formosanum*, *L. Wallichianum*, *L. Washingtonianum*, *L. Catesbaei*, *L. Polyphyllum*, *L. Roseum*, *L. Hookeri*, *L. Oxyptalum*, *L. Alexandrae*.

The following usually need a greenhouse to grow them well:—*L. Philippinense*, *L. Neilgherrense*, *L. Nepaulense*, *L. Lowi*.

Would you like to have lilies in pots in your room? You can have them even if you do not possess a greenhouse. You can grow the lilies in the ground and transfer them to pots just before they begin to flower. For this purpose plant the bulbs in the open ground in rather lighter soil than you would if the lilies were to flower in the open. Place the bulbs about four inches deep. You need not remove the plant until the flower-buds are nearly fully developed. Then take up the lily with the surrounding earth, place it in a big pot, drench it with water, and leave it in a cool, shady place for three days. Then give it a good dose of liquid manure. You may then take it into your room, and it will flower as though nothing had troubled the tranquillity of its existence.

Not all lilies are suitable for this treatment; only those species which will grow in light soils should be used for this purpose. *L. Longiflorum*, *L. Auratum*, *L. Speciosum*, and *L. Rubellum* are most suitable for this form of culture.

About the beginning of November all your lilies in pots will have flowered and died down. What are you to do with them now?

Shake the bulbs out of the pots; examine them; remove any off-shoots; do not cut off the roots; wash them in lime-water and re-pot without delay.

Lilies do not rest during the winter. The pots should be kept in a place which is not too

wet. The pots must not be kept too dry, but an occasional watering should be administered.

We append a list of the lilies, giving the exact composition of the soil in which we have grown them best, both in the open air and in pots. An asterisk is affixed to the most desirable species.

Grown in a mixture of one part peat, two parts leaf-mould, and a good sprinkling of sand:

- *1. *L. Longiflorum*.
- 2. *L. Formosanum*.
- *3. *L. Auratum*.
- *4. *L. Speciosum*.
- *5. *L. Krameri*.
- 6. *L. Rubellum*.
- 7. *L. Henryi*.
- 8. *L. Medeoloides*.

Grown in a mixture of equal parts of peat and leaf-mould, with plenty of sand:

- *9. *L. Leichtlini*.
- 10. *L. Maximowiczii*.
- 11. *L. Catesbaei*.
- 12. *L. Wallacei*.
- *13. *L. Canadense*.
- *14. *L. Parvum*.
- *15. *L. Maritimum*.
- *16. *L. Superbum*.
- *17. *L. Roezlii*.
- *18. *L. Pardalinum*.
- 19. *L. Californicum*.

Grown in equal parts of rich loam and leaf-mould, enriched with the contents of an old hot-bed, but with no peat and very little sand:

- *20. *L. Candidum*.
- 21. *L. Washingtonianum*.
- *22. *L. Humboldtii*.
- *23. *L. Pomponium*.
- *24. *L. Martagon*.
- *25. *L. Pyrenaicum*.
- 26. *L. Callosum*.
- 27. *L. Carniolicum*.
- *28. *L. Chalcedonicum*.
- *29. *L. Monodelphum*.

Grown in soil like the last, but with a fair admixture of peat:

- *30. *L. Giganteum*.
- 31. *L. Cordifolium*.
- *32. *L. Wallichianum*.
- *33. *L. Parryi*.
- *34. *L. Japonicum Odorum*.
- *35. *L. Brownii*.
- *36. *L. Tigrinum*.
- 37. *L. Bulbiferum*.
- *38. *L. Batmanni*.
- 39. *L. Elegans*.
- *40. *L. Croceum*.
- 41. *L. Dauricum*.
- *42. *L. Columbianum*.
- 43. *L. Tenuifolium*.
- 44. *L. Concolor*.
- 45. *L. Hansonii*.

The following species have never been grown by us:—

- *46. *L. Philippinense*.
- *47. *L. Neilgherrense*.
- *48. *L. Nepaulense*.
- *49. *L. Lowi*.
- *50. *L. Polyphyllum*.
- 51. *L. Davidii*.
- 52. *L. Oxyptalum*.
- 53. *L. Roseum*.
- 54. *L. Hookeri*.
- 55. *L. Avenaceum*.

During the greater part of the year you can have lilies in flower in your garden. If you possess a greenhouse you can have lilies in flower throughout the year.

Naturally the lilies flower in the open ground from April till October. If you wish to have lilies in your garden in November you can do so, but mind you, if the weather is unfavourable the blossoms will not be worth much.

The lilies which will flower in the open ground in November are *L. Speciosum* and *L. Auratum*. For very late flowering the bulbs should be planted in May. Last Lord Mayor's day we gathered a small bunch of *L. Speciosum*, and one very fair example of *L. Auratum*. The tiger lilies were also in blossom at that date.

But this late crop of lilies is worth very little; and, unless you have a greenhouse, we advise you to be contented with six months of lily flowers.

In a greenhouse it is easy to have lilies throughout the year. *L. Longiflorum* will flower from April to January, and *L. Speciosum* will flower from August to February if the bulbs are potted at intervals, and very gently forced when necessary. In the month of March you can have *L. Rubellum* in flower.

Doubtless some of our readers will wish to grow lilies for show purposes. Indeed, for this purpose few flowers are more satisfactory, for lilies are extremely showy, they last very well in flower, and are by no means impatient of removal.

As a matter of fact, growing lilies for show purposes can be conducted on two separate systems; either you can grow show plants or show flowers.

For the former purpose the stem, the leaves, the shape of the inflorescence, and the number, shape, size and colour of the blossoms must be above the average. For "show flowers" all your attention must be concentrated upon one single blossom.

For growing show plants choose a very big bulb. In our former articles we warned you against these mammoth bulbs, because they are so often unsatisfactory. But for show plants you must choose these big bulbs; but do not imagine that from every "mammoth bulb" you will get a fine spike. You will rarely get more than one really excellent plant out of six bulbs.

For prize plants pot the bulbs in large pots and keep them in a cold, dark place for a fortnight. When the shoots appear, grow them on as quickly as you can, but give no artificial heat. Keep the plants in a place where they are not likely to be injured by the wind, and where there is plenty of shade. As the flowering time arrives give plenty of liquid manure.

Of all manures, "Ichthumic guano" is the most satisfactory for show lilies.

You must turn your pots round every day,

so as to keep the stems straight. Lilies always bend towards the sun, and unless the pots are carefully turned round every day the stems become twisted or bowed.

For growing prize blossoms choose a small bulb. Grow it as you did for a prize plant, but when the buds begin to turn colour, remove every one except one—the finest. Cut the flower with as long a stem as possible, and send it to the exhibition while it is opening, and before the pollen has become free.

Grow your show plants as carefully as you will, you will often find that many uncared-for plants in the garden beat the pampered one in the form and delicacy of their blossoms!

Like all other flowers, the lilies possess many more names than they desire, and in many cases even the slightest variation from the type has been labelled with a new name. You must therefore beware of paying high prices for cheap lilies with a new name—a fate which will damp the ardour of most amateurs.

Our work among the lilies is done. If our admiration for them has been great, it has never been excessive. The lilies are the loveliest of all flowers, and the study of them is wrought with delight.

"Consider the lilies of the field, how they grow; they toil not, neither do they spin: and yet I say unto you that even Solomon in all his glory was not arrayed like one of these."

"UPS AND DOWNS."

A TRUE STORY OF NEW YORK LIFE.

By N. O. LORIMER.

CHAPTER III.



If you had peeped into the big attic bedroom the three girls occupied at the top of the high New York boarding-house, you would have seen Ada Nicoli in her pretty white dressing-gown—such a pitiful reminder of her former luxury—putting little Sadie's hair into curl-papers. In her lonely life she

had grown passionately attached to her two little sisters who were so dependent on her, and the thing that hurt her most about her poverty was seeing little Sadie look careless and neglected. Often at night she was so tired and weary that it took all her courage to brush and dress

their two heads of hair, and see that their clothes were in proper order for going to school the next day. A hat-box full of Southern bank-notes, which had been Marjorie's and Sadie's amusement for many a day in their old home for playing at store-keeping, came in handy for curling Sadie's hair, and the child always wanted Ada to tell her the same story, how her mother's mother had saved up the bank-notes during the great war, believing that the South would be victorious, and how she had made some of the notes during the war by making slippers out of the felt carpets and selling them.

"If they were all real good dollars now,

Ada," the child said, "we needn't live in this hen-roost any longer, need we?"

Ada took the child in her arms. "Poor little Sadie," she said. "While we three are together, it doesn't so much matter, does it? We can have a little fun sometimes, can't we?"

"It isn't so bad, siss," the child answered, "but I do want to go to Barnum's, and I wish the girls at school wouldn't say, 'When's your father coming back? He's been visiting for a long time.'"

Then Marjorie chimed in with—"I passed two of the girls I used to go to school with to-day, Ada, and they both looked in at a shop window when I passed."

"Never mind," Ada said, with her heart growing sadder every minute. "It's a good thing not to be at school with girls who are so vulgar." Ada's own rich friends had also disappeared in a marvellous fashion. It is true she had left her old home so suddenly, and had to avoid seeing people whom it would be painful to meet in her altered circumstances, so much that, perhaps, they were not altogether to blame. She had been working for some months at Madame Maude's now, and she had found that she had very little time in her busy life for musing over the faithlessness of her rich friends. Her mother's mental condition had not improved, and she had not had a single line from her father. He had left the country to avoid disgrace as well as ruin. The cold weather had come, and Ada was feeling the hardship of walking every morning and evening to her business. It was a long way, and the girl's constitution was not suited to the strain made upon it. The people in the boarding-house had watched her growing slier and paler as the weeks passed, and her eyes had grown feverishly bright. Marjorie was a selfish, peevish child, who did not do what she could to help her sister.

"She's not worth Ada's little finger!" the fat boarder would exclaim, when the child deceived her sister by making friends with girls that Ada had asked her not to know, and had spent Ada's hardly-earned money on candies, and iced-cream sodas. "She's her father's own child, that's what she is, and Ada Nicoli's too fine a girl to kill herself for that saucy brat."

But Ada could see no fault in Marjorie, for Marjorie was clever enough to deceive her. And so while Ada was toiling night and day to bring her up as a refined and cultivated child, Marjorie was hankering after the society of vulgar companions, and paying little attention to her lessons. But little Sadie was a sweet and loving child, and her devotion to Ada was touching. At the boarding-house dinner-table it was a pretty sight to see Ada Nicoli with a little sister on each side of her. She was the prettiest, daintiest creature herself, and it was her greatest joy to see people look with admiration at her two children, as she called them. They were always wonderfully clean and freshly dressed.

"How long can she keep it up?" the fat boarder said. "She fairly amazes me, that girl. She had never even brushed her own hair a year and a half ago, and now she's keeping these two children so sweet and fresh, and bringing them up so well, too. They are a deal nicer children than when they first came, but it's wearing her out—that light burning up in her room till past twelve at night, and she's up by seven o'clock in the morning."

Beside the people in the boarding-house there was someone else who had been watching Ada working the soft curves of her face into sharper lines, and seeing the deeper shadows come below her bright eyes. It was an old man who drove to business every day on the Fifth Avenue stage-coach. He always



- 1 *L. Gigantum*
- 2 *L. Auratum*
- 3 *L. Auratum Rubro-Vittatum*
- 4 *L. Auratum Wittei*
- 5 *L. Auratum Platyphyllum*
- 6 *L. Washingtonianum*
- 7 *L. Candidum*
- 8 *L. Monodelphum*
- 9 *L. Humboldtii*
- 10 *L. Croceum* var. *Chaucei*
- 11 *L. Chalcedonicum*
- 12 *L. Speciosum Rubrum*
- 13 *L. Speciosum Melpomene*
- 14 *L. Speciosum Album*
- 15 *L. Tigrinum* var. *Fortunei Gigantum*
- 16 *L. Superbum*
- 17 *L. Wallichianum*
- 18 *L. Kramerii*
- 19 *L. Longiflorum*
- 20 *L. Longiflorum Albo-Marginatum*
- 21 *L. Canadense*
- 22 *L. Pyrenaicum*
- 23 *L. Leichtlinii*
- 24 *L. Brownii*
- 25 *L. Elegans Robustum*
- 26 *L. Elegans Alro sanguinum*
- 27 *L. Elegans Alice Wilson*
- 28 *L. Pardalinum*

F. C. MILLER

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