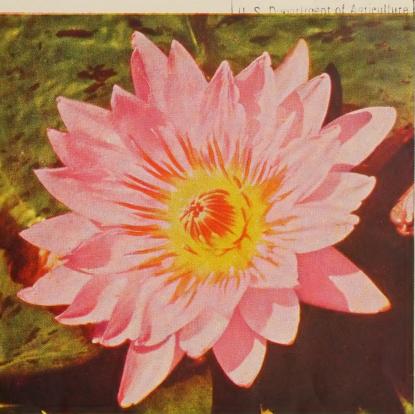
Joseph Lingg Aquatic Gardens, Inc. WATER LILIES AND AQUATICS ELIBRARY RECEIVED

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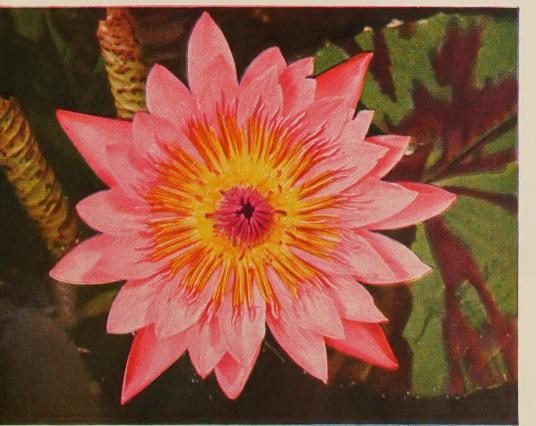
• APR 2 5 1957 *



Blue Beauty No. 18



General Pershing No. 24



Pink Perfection No. 23



H. C. Haarstick No. 34

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WATER LILIES AND AQUATICS



Comanche No. 16



Chromatella No. 12



Gloriosa No. 1

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Somptuosa No. 8

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This Reference Book has been prepared for the experienced or novice "aquagardener." It contains all the information you may need to start a new garden or refurbish and enhance an old one. The methods and materials suggested have been tried and proved through many years of research and actual use in water-gardens throughout the country and other parts of the world. The items described in this book represent the finest quality obtainable in keeping with Mr. Lingg's own standards of "*Excellence at the lowest cost for every budget*." Our thousands of customers express their satisfaction in their orders and happy testimonials year after year.

SUCCESSFUL WATER GARDENS

by Joseph Lingg

Prominent Horticulturist and President of Joseph Lingg Aquatic Gardens Inc.

Water gardens are the "jewels" in your landscaping planning. Provide them with a suitable setting and you will be thrilled with their resplendent beauty and the many facets of enjoyment they can give all season long. No other form of outdoor designing can offer as much pleasure for so little effort and expense. Nothing else appeals so universally to the artistic tastes innate in everyone, young and old. It is a realistic opportunity to express the intangible beauties of nature. Within the framework of a large pool, or even a small tub, you can achieve breathtaking designs with your individual choice of aquatic plant life and goldfish.

JOSEPH LINGG

quatic Gardens

WATER LILIES ORNAMENTAL FISH

Preparation for Planting

Fill the shallow water and bog plant pockets and the waterlily tubs with soil topped off with one inch of sand, and place the tubs at their proper levels in the pool. Next, fill the pool with water and let it stand 3 days before doing any planting. In small or shallow pools where it is not practicable to use soil containers place about 6 inches of soil, (or enough soil to allow for not more than 12 inches of water), over the whole



ABOUT THE AUTHOR: Joseph Lingg is recognized by horticulturists as a leading exponent of water plants and gardening. In a career devoted entirely to horticulture, Mr. Lingg is tireless in his efforts to develop new colors and varieties in aquatic plants. Some beautiful examples can be found in leading publications. His text 'Successful Water Gardens' reflects 35 years of shirt-sleeve experience providing practical, helpful guidance and information for water garden hobbyists.

bottom of the pool. Top off the soil with 1 inch of clean sand. Place a large piece of strong paper, or cardboard, or any other suitable cover on top of the sand and slowly run the water in on top of the cover. Take this precaution so as not to stir up the sand and soil on the bottom of the pool.

Soil and Fertilizers

Mix 3 parts of good, heavy, clayey top soil (sod preferable), with 1 part of rotten cow manure. Dry cow manure, also known as shredded or pulverized manure, obtainable in any hardware, seed, or garden supply store, may be used if wet manure is not obtainable. Add 1 pint of Bonemeal to a bushel of soil of the above mixture. Better results may be obtained if the above mixture is composted from 3 to 12 months before using it, however, for best results, fresh cow manure should be used in composting. When composting, and cow manure is not available, dry manure, or horse manure, or any other manure may be used. Never use swamp muck, soil from woods, peatmoss, or sand as a substitute for soil or fertilizer.

Size and Spacing of Soil Containers

Medium or small water-lilies will grow satisfactorily in wooden buckets which are 10 to 12 inches in diameter and 10 to 12 inches deep. Large water-lilies (annual or perennial), should have at least 1 bushel of soil (or a box at least 18"x18"x12" deep), for best results. Perennial lilies should be planted at least 3 feet apart; annuals should be planted 4 to 5 feet apart.

Water Depth for Lilies

Water-lilies in natural pools may be planted in a water-depth up to 24 inches, but if they are planted in containers, in artificial pools we recommend a water depth of no more than 12 inches from the top of the container to the top of the water. Neither in natural nor in artificial pools should waterlilies be planted in less than 6 inches of water. For best results with young plants, especially with lotus, we recommend only 6 inches of water for the beginning and then lowering the soil container to a depth of no more than 12 inches — 8 inches being a preferable depth—as the plants become well established.

How to Plant

You are not ready to start planting unless all of your boxes and pockets are filled with soil topped off with 1 inch of sand and the water has been in your pool for at least three days. All water-lilies (especially annuals), and aquatic plants should be planted immediately after unwrapping them because they will spoil if left to dry. (*Caution*: If the aforesaid plants cannot be planted immediately upon unwrapping they should be completely submerged in water until they can be planted.)

To plant the lilies and other aquatics just press the roots or (in the case of plants with a ball of soil), the ball of soil into the, by now, soft sand and soil. Do not bury too deep in the soil. Be sure that the crown of the plant is just above the sand. The crown of the plant is that part of the plant where the stems of the leaves and the roots meet.

The banana-like roots of the Lotus should be handled very gently so as not to break the brittle growing points. Press the Lotus roots, horizontally, 2 inches into the soil.

When to Plant

Perennial lilies and perennial bog plants may be planted early in the spring but not before the water has warmed up sufficiently to encourage immediate new growth. This date is usually around the latter part of April in the latitude of New York State. After May 1, is the time to plant Lotus and Oxygenating Plants; this is also the time to stock your pool with goldfish and scavengers. All the other plants listed in this book, including annual water-lilies, should not be planted before June 1. Often customers become impatient with our reluctance to sell annual water-lilies before June 1. The reason for our reluctance is not because the lilies are not ready. Just the contrary is true because by the end of May these lilies are already quite large, and providing room for all of them in our greenhouses becomes a problem. However, our many years of experience have shown us that the customer who waits even longer than June 1, the date we suggest, before planting annuals outdoors is usually far ahead of the customer who takes these lilies away before June 1, against our advice.

Care of Pool during Summer

For luxuriant growth of bog plants and water-lilies, especially annuals, feed every two weeks starting four weeks after planting by inserting 2 tablespoonfuls of Vigoro, Bonemeal, or Bloodmeal wrapped in cheesecloth into the soil near the roots. Although not necessary for the growth of the lilies, but for the appearance of the pool, pick off the old leaves and flowers of the plants. Keep an eye on rampant growers such as Hyacinths, Parrot Feather, and Anacharis so that they do not crowd slower growing plants. Once a week spray your pool with water, using a garden hose, to keep in check small black aphids which sometimes during dry summers infest the leaves and stems of plants which grow above the water. If aphids persist, in spite of the water spraying, spray with Red Arrow. This spray is harmless to the fish if the directions on the bottle are followed.

Winter Care of Pools, Fish, and Plants

For winter care of Goldfish, Lotus, Perennial Lilies, and Bog Plants leave the water in the pool, and cover the pool with boards with leaves or straw heaped on top of them to prevent the water from freezing. If it is not possible to leave the water in the pool, remove the plants with their soil receptacles and bury them in the ground below the frost line (18 to 24 inches underground). Or place them in any cool place which is free from frost such as the cellar. If you are going to store them in a place such as the cellar, be sure to keep them moist so as to prevent dry rot. If the plants are planted in soil on the bottom of the pool, cover the soil and plants with manure,



leaves, or straw to prevent freezing of the roots. If the fish are brought indoors in the fall be sure to provide large enough aquariums for them. Many more fish are killed every fall by crowding indoors than by freezing outdoors under the ice.

BUILDING THE LILY POOL

For those of you who are planning to build a pool in your garden, I offer the following useful advice and information as to the construction and location and other details necessary for the construction of a pool.

Select your water garden site carefully. Consider its relationship to the house and the rest of the garden when seen from the outside or from inside the house. A natural pond is of course ideal. However, artificial pools can be beautifully detailed to give highest satisfaction.

Shape and Size

This is largely determined by the layout and size of your garden. Formal pools, which are usually either round, or square, or of some symmetrical design, require a formal setting. Informal pools are irregular in shape so as to fit the surrounding terrain. The informal pool is much more popular than the formal pool because, as with the informal garden, it gives you more freedom of action, and more expression of individuality, and it gives you the delight of creating naturalistic effects. The smallest pool is better than no pool at all. Water-lilies and other aquatics may be grown in a pool only 2 feet in diameter, but, as the cost of stocking even a large pool is small, we advise you to make your pool as large as your garden permits it to be. Also, as the pool is bound to be the show place of your garden, you will find the limitations of a small pool very annoying. We have heard many customers complain about their pool being too small, but never yet has one said that his pool was too large.

Location and Depth

Regardless of the size or shape of your pool, be sure, for best results in growing water-lilies, to place it where it will receive full sunlight. Formal pools are usually out in the center of the lawn where they are a part of the general design of the formal garden. There are many places in the informal garden where an informal pool may be placed such as: The low part of the rock garden where they make a wonderful addition to the natural setting of the rock garden. Any low part or far end of your garden.

Joseph Lingg Aquatic Gardens Inc. • Ardsley, New York

Two feet is sufficient depth for any size pool where the lilies or other aquatics are planted in soil containers. For small pools, where it is practicable to cover the bottom of the pool with soil instead of using soil containers, a depth of from 12 to 18 inches is sufficient. (A pool 2 by 3 feet is considered a small pool.)

Construction

To build concrete pools with straight sides it is necessary to construct a form. The walls of a straight sided pool should be at least 6 inches at the top widening to 8 inches at the bottom. The bottom of the pool need be only 6 inches thick. The sides and bottom should be reinforced with iron rods or fairly heavy hog wire netting. For best results the concrete mixture for the bottom and sides should be poured on the same day. Although it is not impossible to construct pools which require forms without technical knowledge, it is advisable to let a mason contractor construct pools of this type.

A pool with sloping sides does not require forms, and it can be easily built without any help from a professional. First, lay out a garden hose on the ground where you expect to build your pool. Shape and form this hose to the size and shape of the expected pool. This makes it easier for you to visualize the size and shape of the pool after it is completed. Next, excavate the soil 6 inches deeper and 6 inches wider than the actual size of the pool. The extra 6 inches is to allow for the concrete. Do not make the sides too straight otherwise you will have difficulty retaining the concrete mixture when you pour it. It is important to dig carefully so that there will be no loose dirt in the excavation when you are finished digging. Any loose soil on the bottom of the excavation will have to be leveled out and tamped down. The sides and bottom should be smooth for best results in laying the concrete. When excavating, consider the manner in which the concrete side walls flare out on the top (see figure 1), so that soil or rocks may be placed on top of the concrete walls to hide from view. Do not attempt to incorporate any rocks or large stones, which may be jutting out of the ground, into the concrete of the sides or bottom; if this is done it will invariably cause leaks. If you wish to have rocks in your pool, for soil pockets or ornamental effect, lay them after you have poured the concrete.

It is best to have all of your reinforcing material ready before you start. Lay it out and shape it, and know just where you are going to put it before you mix the concrete. It is also best before mixing the concrete to plan and arrange things so that you may finish the whole operation in one day with one continuous pouring. The reason for this is that the pool will then be constructed as one unit without any joints.

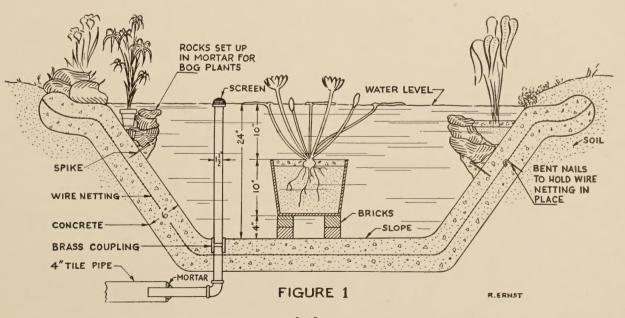
For a good mixture of concrete, we recommend 1 part of Portland cement, 2 parts of sharp sand, and 3 parts of half inch crushed stones. Mix well with water into a rather stiff mixture. Apply about 3 inches of this mixture over the bottom and sides of the pool. After this, lay your reinforcing material on top of the concrete; be sure that it lays flat on the concrete. It is advisable to bend heavy nails and drive them into the concrete to hold the reinforcing in place. Next, pour another 3 inches of concrete on top of this and level it out well. Do not attempt to smooth it; leave it rough. Allow this concrete to set for about one or two hours. Then, mix 2 parts of sifted sand and 1 part of cement with water; apply this mixture about $\frac{1}{4}$ to $\frac{1}{2}$ inch thick over the concrete and trowel it out to a smooth finish. Before applying this finish, insert a few spikes 3 inches into the concrete to serve as anchors for the rocks of intended soil pockets. (See figure 1.)

Drain of the Pool

The drains in straight-sided pools may be located at one end or in the corner. In pools with sloping sides the drain may be in any convenient place at the bottom. In either type pool always slope the bottom towards the drain. If the drain pipe leading away from the pool should be longer than a few yards it is advisable to lead the $1\frac{1}{2}$ inch metal pipe into a 3 or 4 inch tile pipe which shall prevent the pipe from clogging when draining the pool. However, drainage systems may be easily dispensed with as you seldom drain your pool more than once a year. It is simple to drain a pool which does not have a built-in drainage system. To do this, fill a garden hose with water; plug both ends tightly with a cork, or a nozzle, or any other suitable plug; drop one end into the pool; place the other end at some point lower than the bottom of the pool and remove the plugs. This will start a syphon which will drain the pool.

Finishing the Pool

Bog and Shallow water plants are very desirable for natural and artistic effects. These plants should not be planted in water as deep as the lilies are planted in; therefore pockets should be built near the surface of the water to accommodate them. (See figure 1, below.) These pockets may be made out of rocks to hold soil for the bog plants or, as we show in figure 1, page 8, may be made so that a flower pot with soil may be set into them. To build these pockets use flat rocks. For the bottom rock use a rather wedge shaped one. Use the previously mentioned spikes which had been placed in the pool when it was being built as anchors for these rocks. Use mortar to bind and hold the rocks and to cover the spikes with.



Place some rocks around the very top edge of the pool; or let the lawn come right up to the water's edge. (See figure 1, page 3.) Plant Forget-Me-Nots where the soil meets the water. All of the above mentioned work of finishing the pool around the top should not be done on the same day as the concrete is poured; however it should be planned for in advance of building the pool.

usually done about 24 hours after pouring. The first time you fill the pool, to prevent injury to the concrete finish, place a large piece of strong paper, or cardboard, or any other suitable cover on top of the concrete, and slowly run the water in on top of the cover. Change the water at least 5 times over a period of 2 weeks, or use vinegar as mentioned on page 6. Before filling the pool with water the last time, clean the whole pool by scrubbing and hosing down the concrete.

Fill the pool with water as soon as the concrete is set; this is



PERENNIAL WATER-LILLIES

I have painstakingly selected what I consider the best colors and most popular priced perennial water-lilies. They combine the qualities of prolific blooms and sturdy growth as well as lovely flowers. The flowers include a wide variety of colors such as rich reds, beautiful whites, shell pinks to deep rose, yellow, and orange or sunset. All perennial water-lilies are equally at home in large or small, natural or concrete pools, half barrels, or tubs. Little care or experience is necessary to grow water-lilies —just keep the roots from freezing, give them sunlight, rich soil, warm and shallow water, and they will delight you with abundant flowers and luxuriant growth year after year.

RED AND VERMILION SHADES

1. Gloriosa. The most outstanding red flower of all times, and the most free flowering of the perennial water-lilies. The flowers are from 4 to 6 inches in diameter, and they are a deep carmine rose color which becomes deep red with age. They are also very symmetrical, full-petaled and fragrant. This lily is the best of its class for all purposes. A medium-sized plant which is well suited for small pools. See inside front cover for illustration.

2. Attraction. It has an immense flower which, under favorable conditions, becomes 8 inches in diameter. On first opening, the flowers are a garnet red with almost white sepals and yellow stamens lightly touched with mahogany. As the flowers age, the color deepens to a dark red, and the sepals become streaked with garnet.

3. James Brydon. This is a superb variety, and it is very free flowering. The flowers are from 5 to 6 inches in diameter; the petals are broad, concave, and incurving giving the flower a fine cup-shape. The color is a rich crimson with a silvery sheen on the back of the petals.

3A. Escarboucle. The most brilliant of all the hardy reds. The flowers are quite large and are bright vermillion red with garnet stamens tipped yellow. It is exceptionally hardy, and blooms freely and early.

WHITE COLORS

4. Gonnere. An exceedingly double, crystal white flower with canary yellow stamens. The flowers give the effect of huge, white snowballs lying between the green foliage in the pool. This is a moderate sized plant which is free flowering once it becomes established. *See inside back cover for illustration*.

5. Gladstone. A beautiful, large, cup-shaped, pure white flower with golden yellow stamens. It is a strong grower, and it requires plenty of space for its best development.

6. Marliac White. A well known European lily of vigorous growth and medium size. It has snow-white flowers with light yellow stamens, and the sepals are tinted with pink. The flowers are large, fragrant, and prolific.

7. Odorata Gigantea. A native of this country; it has large, pure white flowers. The pads are large and deep green with a reddish tint on the underside. It is not suitable for small tubes or confined areas because of its large leaf spread. It is excellent for naturalizing.

PINK SHADES

8. Sumptuosa. This lily has a most beautiful, large, cup-shaped, fragrant flower which is very double and symmetrical. The center petals are a deep rosy pink, but the petals gradually lighten in color toward the outside of the flower. The stamens are an orange shade thus creating a most pleasing color effect. *See inside front cover for illustration.*

8A. Joanne Pring. An unusual pygmy plant that has deep pink flowers turning lighter toward the tips. The stamens are deep pink on the outside and yellow-orange on the inside. The pads are dark green and measure 2 to 3 inches across. This is a very welcome addition to the small list of pygmy lilies.

9. Marliac Rose. The flowers are large and fragrant. The petals are deep pink at the center shading to a delicate rose at the tips. It is excellent as a cut flower as its waxy blossoms last several days.

9A. Pink Opal. The deep, rich pink flowers of this plant are of a moderate size. On the whole, this plant is most suitable for small pools.

10. Rose Arey. One of the most desirable pink lilies of the Odorata type. It is free flowering, of strong growth, and very fragrant. The flowers are large, up to 8 inches in diameter, and their color is a deep cerise pink. This plant is not recommended for a small pool or small soil container.

10A. Neptune. Star shaped flowers of a deep rose color shaded with crimson — the petals are almost white shaded with rose. The young foliage of this plant is very interesting in that it is a deep maroon color which changes to green with age.

11. Morning Glory. It has an abundant amount of beautiful, soft pink, fragrant flowers with yellow stamens.

11A. Masaniello. A French hybrid with cup shaped flowers which are pink in color dotted with carmine, and which have a most pleasing fragrance. A free flowering and very desirable lily.

YELLOW SHADES

12. Chromatella. This is one of our best sellers as it is the finest hardy yellow lily in cultivation. It has charming, canary yellow flowers, from 4 to 6 inches in diameter, with bright yellow stamens. The leaves are beautifully mottled with brown. This plant is well suited for a small pool. See inside front cover for illustration.

13. Sumrise. A superb yellow flower which is one of the first to open in the morning. It produces very large blooms profusely from early spring to late fall. The petals are clear sulphur yellow, and they are long and narrow with curved sides and crinkled tops. The flower gives the appearance of a giant Chrysanthemum. This plant does well in deep water and does not mind crowding. Because of its large size it should be planted in large soil containers and in good size pools. See inside back cover for illustration.

14. Yellow Pigmy. It has rich golden yellow flowers, 1 to 2 inches in diameter, which float on the surface. The leaves are very small, beautifully mottled with brown spots, and they are a reddish green color on the underside. This is one of the few water-lilies that can be grown in just a flower pot; hence, it is very suitable for miniature pools.

CHANGEABLE COLORS

15. Paul Hariot. A large, cup-shaped, light yellow flower which is shaded with a coppery red and is free blooming. On the first day the petals are clear yellow; on the second day they are orange pink; on the following day they deepen to almost a red. This lily is the finest in its color range. It is of medium size, of vigorous but compact growth, and it is suitable for either large or small pools. See inside back cover for illustration.

16. Comanche. On opening, the large flower of this plant is a rich apricot color later changing to deep coppery bronze streaked with glowing red. The foliage is an attractive olive green flecked with brown. A good size pool and soil container are necessary for this lusty grower. See inside front cover for illustration.

17. Aurora. This plant produces flowers of a soft rosy yellow, when it first opens, which changes to deep red as the flower ages. It is not a very large plant, and, therefore, it is well adapted for small pools. It could be listed as a Pigmy Lily and can be grown in a flower pot in a small pool.

Joseph Lingg Aquatic Gardens Inc. • Ardsley, New York



ANNUAL WATER-LILIES (TROPICAL)

Eventually you shall include annual water-lilies in your collection . . . why not this year? No pool is complete without at least one. Annual lilies produce many more and larger flowers than the perennial lilies do. It is not uncommon for one plant to throw up four or five flowers at one time. Planted in large soil containers they grow many times the size of perennial lilies. For small pools, we recommend planting in smaller soil containers so as to produce smaller plants and flowers. They will bloom as profusely in a small soil container as they do in a large soil container. Our annual lilies are grown in five inch pots; therefore, they are well established and vigorous plants when shipped to you, and they are guaranteed to grow. Annual lilies should not be planted outdoors until June or until the weather has become settled and warm.

Tropical Day Blooming

Day Blooming Annuals BLUE COLORS

18. Blue Beauty. (Pennsylvania). A Blue Beauty, to be sure-the best of them all. The flowers are a rich blue color, and they are from 8 to 12 The plant is free growing and free flowering several blooms being on the plant at one time. It flowers continuously from early in the season until frost. This is our best selling annual lily. See front cover for illustration.

19. Henry Show. It has Campanula blue flowers with lemon-chrome tipped stamens. The flowers are fragrant and freely produced. This plant is of moderate growth; therefore, it is suitable for small or medium sized pools.

20. Mrs. Edward Whitaker. A plant of great size; it has very large, fragrant flowers which are produced in abundance. The color of the flower is lavender blue — slightly bleaching as the flower ages.

PURPLE COLORS

21. Director George T. Moore. A new hybrid of great promise. The pads and flowers of this lily are small but very numerous; it often has 8 to 10 flowers at one time. The color is a deep bluish purple.

PINK COLORS

23. Pink Perfection. This lily has beautifully colored pads of reddish brown and green. The color of the fragrant flower is deep pink, and it has numerous yellow stamens tipped with pink. This plant is medium sized and free flowering. See front cover for illustration.

24. General Pershing. It has large, full-petaled, delightfully fragrant, clear pink flowers which open early in the morning. This outstanding lily is a compact grower and a very prolific bloomer. See front cover for illustration.

25. Mrs. C. W. Ward. This lily, an old hybrid, is hard to beat. It has pointed, rose pink petals and a profusion of large, golden stamens. It is a large plant, and it holds its many, fragrant flowers high above the water.

26. Castaliflora. A medium sized plant with numerous, fragrant, bright pink flowers.

WHITE COLOR

28. Mrs. Geo. H. Pring. It has large, fragrant, pure white flowers with canary yellow, white tipped stamens. It is excellent when planted alone in a formal setting; it also goes well with any color combination. See inside back cover for illustration.

29. Isabelle Pring. A new hybrid; it has fragrant, well shaped, pure white flowers. It is very similar to the Mrs. Geo. H. Pring except that the flowers are more double.

AUTUMN SHADE

31. Golden West. An outstanding hybrid with maroon speckled pads. The beautiful, peach pink flowers change to a lovely apricot pink as the flower grows older. The flowers are fragrant and freely produced.

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READ WHAT CUSTOMERS SAY:

From Syracuse, New York "Thank you for the plants. They arrived in good condition and I was very pleased. It has been a pleasure to deal with a firm as fair as you have been, and I shall recommend you highly."

From Manchester, New Hampshire "My order arrived in good condition and I was very pleased with it. Want to thank you for it."

Night Blooming Annuals



These lilies are fast becoming more and more popular, and there is a good reason for this. There is nothing nicer than to have some lilies blooming in the evening when the other lilies have gone to sleep. Perennial and annual day blooming lilies close their flowers in the afternoon which leaves your pool without flowers when all the family is at home and friends come visit-

Tropical Night Blooming

ing. However, night bloomers open early in the evening and stay open until 10 or 11 o'clock the next morning. All of the night bloomers are large plants with flowers 8 to 12 inches in diameter and with very large pads.

WHITE COLOR

32. Juno. This lily has large flowers, 8 to 12 inches in diameter, with saffron yellow stamens.

33. Missouri. A very large, semi-double, pure white flower of distinctive appearance. The enormous pads have fluted margins.

RED COLORS

34. H. C. Haarstick. If you favor red flowers this new night bloomer shall please you. The blooms are large, well-shaped, and brilliant red. They will contrast beautifully with other flowers. The pads are dark red or copper-colored and are conspicuously different than the other foliage in your pool. See front cover for illustration.

35. Emily Grant Hutchings. This lily has very large, cup-shaped, amaranth red flowers. It has smaller pads as compared with the pads of other night bloomers. The pads are a brownish green color.

PINK COLORS

36. Mrs. George C. Hitchcock. A new hybrid with rose pink flowers.

37. Sturtevant. An exceedingly beautiful night bloomer with large, bright pink flowers and bronze-green foliage. A hot summer is required to bring it to its greatest perfection.

WOULD YOU LIKE TO SEE A PICTURE OF YOUR WATER GARDEN IN OUR NEW CATALOG?

Joseph Lingg, in his forthcoming new catalog-handbook, will devote many pages to beautiful pictures of water gardens and lily pools. He invites your participation, and asks that you send him a photo or snapshot of your water garden or lily pool. Those that are selected as outstanding will be published in his new book. And in appreciation, Mr. Lingg offers \$10.00 worth of water-lilies, aquatic plants and goldfish to each sender of a published picture. You choose from Mr. Lingg's complete selection. Get in the fun! Send your picture off in the mail today. You can be a lucky and proud winner!

Sacred Lotus or Nelumbiums (PERENNIALS)



Sacred Lotus

Nelumbiums or Sacred Lotus are one of the most interesting plants in the vegetable kingdom. They are natives of India, and from there they were brought to Egypt. The Egyptians held them sacred and first cultivated them around their places of worship some four thousand years ago. The Lotus bear their beautiful, large flowers on tall stems from three to eight feet in height. The stately, silvery

bluish green leaves of this plant are often two feet in diameter. The grand foliage, aside from the plant's magnificent flowers, well repays one for growing Lotus. Lotus should not be planted in soil containers which are smaller than 18"x18"x12" deep. They can be successfully grown in pools as small as a half barrel if the bottom is filled with about ten inches of soil.

38. Egyptian Lotus (Nelumbium speciosum). This flower of the Egyptians is a deep rose color on first opening; as the flower gets older it becomes paler. It has a strange, delicate perfume, and it is very hardy and free flowering.

39. Asiatic Lotus (Album grandiflorum). The best white Lotus. It has very large, deep green leaves. The flowers are a gorgeous, pure white with a delicate oriental fragrance.

40. Double Flowering Rose Lotus (Nelumbium roseum plenum). The flowers of this plant are very double, of a deep rose pink color, and are borne on strong stems well above the foliage. It is also very free in growth and bloom.

41. American Lotus (Nelumbium lutea). This plant is known also as Water Chinquapin. It has beautiful, large, yellow flowers.

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Oxygenating Plants

The value of oxygenating plants is usually underestimated by most people. These underwater plants are absolutely necessary if you expect to keep your water pure and crystal clear. They also provide a much needed shelter and protection for baby goldfish. In their growing process they absorb impurities from the water, and in return for this they give off oxygen. This action clarifies the water and prevents the water from turning green.

How to Plant Oxygenating Plants. The first four varieties listed below grow without planting; however all will do better if rooted in soil, in shallow water, or planted in containers with soil and sand. They should not be planted in the same containers with the water-lilies but in separate, small boxes or 5 or 6 inch flower pots and placed between the lilies. Place a little soil in these boxes or pots and top it off with sand. The sand prevents the muddying of the water. Do not attempt to shove the tender stems of the oxygenating plants into dry soil and sand, but place the container in water for a few minutes to soften the soil. One 5 inch pot will accommodate 3 bunches of plants.

69. Anacharis. A fast growing plant with dark green foliage.

70. Cabomba. A very pretty plant with fan-like, green leaves.

71. Milfoil (Myriophyllum). Very useful for spawning goldfish; it has needle-like leaves in bushy formation.

72. Ludwigia. It has round leaves which are green above and rose colored underneath.

73. Vallisneria. A plant with long, ribbon-like leaves.

74. Sagittaria Sinensis. This plant has broad, dark green leaves.

75. Spatterdock. It has very broad, light green leaves.

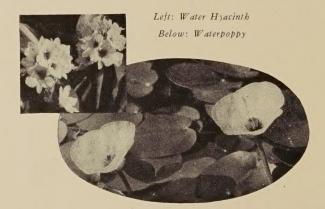
Shallow Water Plants (ANNUALS)

42. Water Snowflake (Nymphoides indicum). It is a small, lily-like plant with light green, detachable leaves. The flowers are white with which gives the effect of a giant snowflake. The flowers come in clusters at the junction of the leaf and the petiole. It should be planted in soil and in a water depth of no more than 8 inches.

43. Waterpoppy (Hydrocleis nymphoides). A beautiful, little, yellow flower, about 2 inches in diameter, on stems that rise above the water. The thick, floating leaves are broad, oval, and a waxy, deep green color. It will flower profusely all summer, and it does well in a small tub or pool. It should be planted the same as the Water Snowflake. See back cover for illustration.

44. Purple Water Hyacinth (Eichhornia azurea). A creeping plant without the inflated stems of the ordinary Hyacinth. The flowers are a beautiful shade of lavender blue. It should be planted in rich soil with only a few inches of water above it. See back cover for illustration.

45. Parrot Feather (Myriophyllum proserpinacoides). A strong, rampant grower with light green, feathery leaves. This creeping plant may be put to many uses. If planted in a fountain or in a hanging, watertight basket it will soon grow over the edges in the form of long, trailing stems. It is very pretty when planted between Waterpoppies or other shallow water plants. It is also very effective for hiding the pots or planting boxes of the shallow water plants. It may be clipped back if it should later crowd the other plants.



Floating Aquatic Plants (ANNUALS)

46. Water Hyacinth (Eichhornia crassipes). It is an interesting, showy, floating plant. The orchid-like flowers are borne on a spike (like the true Hyacinth), and they are a lavender color with a large blotch of deep blue and with a yellow spot on the upper lobe. The long, bushy roots are excellent for receiving the spawn of goldfish. The roots also provide cover and a hiding place for baby goldfish and protects them from their cannibalistic parents. The flowers are produced freely if the roots are allowed to anchor in soil. See back cover for illustration.

47. Water Lettuce or Shell Flower (Pistia stratiotes). A pretty, rosettelike plant with blue green, velvety, fluted leaves. It does well in shady places and in shallow water with soil underneath.

48. Azolla (Azolla caroliniana). Small, green plants which turn to brown red under strong sun.

49. Duckweed (Lemna minor). Another very small plant with ovate, light green leaves. It is very much appreciated by goldfish for food.

50. Salvinia (Salvinia braziliensis). Small, soft green leaves with tiny hairs on the top of them. They grow in attractive chain formations.

READ WHAT CUSTOMERS SAY:

From Minersville, Pennsylvania "Received the plants today and they all seem to be healthy and in good condition. Hope they all will grow for me. Thanks for such large healthy plants."

From Southern Pines, North Carolina "Your plants and animal life came through in fine condition. Thank you."

From Port Jefferson Station, New York "Received your shipment yesterday and was well pleased with the fish and plants. It was a very lovely collection for the price."



BOG PLANTS ANNUAL & PERENNIAL

Bog plants are very useful for obtaining that much desired natural effect in your pool. In formal pools plant them in the corners or in the center; in informal or natural pools plant them in clumps along the water's edge with the tall growing plants in the background and the low growing plants in the foreground. For your convenience in selecting them, we are listing them as Annuals and Perennials; however, for best results a combination of the two should be used. You will find that the Annuals are more showy than the Perennials.



Egyptian Paper Plant

How to Plant Bog Plants. All annual bog plants should be planted in only wet soil, or no more than one inch of water above the soil. This is also the best way to plant the perennials; although Arrowhead, Cattails, and Pickerel Rush will tolerate water up to 6 inches deep.

Annual Varieties

51. Imperial Taro (Colocasia antiquorum illustris). This plant has leaves, resembling elephant ears, on stems from 3 to 4 feet high. They are a velvety green with blotches of dark brown and violet black. It is very effective as a centerpiece in a small pool. It also becomes a very satisfactory house plant during the winter by placing it in a jardiniere.

52. Umbrella Palm (Cyperus alternifolius). These miniature palms are our best sellers in bog plants. They, too, make attractive house plants if they are treated the same as the Taro.

53. Primrose Willow (Jussiaea longifolia). It has bright yellow flowers profusely borne in the axils of the leaves. These plants grow erect, 2 to 3 feet high, with attractive, narrow foliage. See back cover for illustration.

54. Egyptian Paper Plant (Cyperus papyrus). This plant has tufts of long, thread-like leaves growing on triangular stalks which are 5 to 8 feet high. It requires rich soil and shallow water or moist ground. It is ideal for background planting.

Perennial Varieties

55. Giant Arrowhead (Sagittaria sagittifolia). Beautiful, arrow-shaped leaves growing on stems which are from 1 to 3 feet high. It flowers freely in a series of white spikes.

56. Double-flowering Arrowhead (Sagittaria japonica florepleno) The same as the above, except that it develops a spike of beautiful, double-petaled flowers.

57. Bogbean (Menganthes trifoliata). A low growing plant with glossy, trifoliate leaves. It bears fragrant, white flowers fringed with pink and with a beard on each petal.

58. Common Cattail (Typha latifolia). A favorite, native swamp plant; it is easy to grow and it is ornamental.

59. Graceful Cattail (Typha angustifolia). This variety bears its dark brown flower spikes (cattails), on tall, graceful stems.

60. Cardinal Flower (Lobelia cardinalis). A very attractive, native plant with spikes of fiery red flowers. It is very effective when planted in clumps along the edges of natural pools.

61. Blue Flag (Iris versicolor). A very attractive, sword-leaved plant which has blue flowers.

62. Sweet Flag (Acorus calamus var.) Green and white striped, saberlike leaves which grow about 2 feet high.

63. Yellow Flag (Iris pseudacorus). This plant is the same as the Blue Flag except that the color of the flower is yellow, and it is taller growing.

64. Floating Heart (Nymphoides peltatum). It has pads like a waterlily, and its flowers are small and bright yellow. It grows in 2 to 12 inches of water. It should not be planted in the same containers with the water-lilies or in pools with natural soil bottoms because of its rapid growth.

65. Forget-Me-Not (Myosotis scorpioides). Everybody knows this old favorite of moist places. It has small clusters of sky blue flowers which have a yellow eye; it is in bloom from spring until fall.

66. Loosestrife (Lythrum roseum superbum). Late in the summer it breaks out in a mass of rose-colored flowers on spikes. The flowers are on stems which are up to 4 feet high.

67. Pickerel Rush (Pontederia cordata). A useful plant for the shallow water along the edge of the pool. It has arrow-shaped leaves which are about 2 feet high. The flowers are blue and are borne on close set spikes. 68. Water Canna (Thalia dealbata). It has broad, canalike, glaucous leaves, 3 feet high, with panicles of purplish flowers on long stems.





Imperial Taro

Left: Natural pool planted with hardy water-lilies and bog plants. Inexpensive to construct.

POOL SCAVENGERS

Scavengers perform a definite service in the pool. The snails eat algae and green scum, the tadpoles devour decayed matter; and the clams or fresh water mussels act as continuous filters to keep the water clear.

76. Livebearing Trapdoor Snails (Vivaparus malleatus). A large, hardy snail which bears live young and eats algae and green scum, keeping the water clear. One of the best scavengers for the pool.

77. Coral or Red Ramshorn Snails (Planorbis rubrum). They are use-

ful in aquariums as well as in pools and are very ornamental because of their red color.

78. Black Snails (Planorbis cornens). The same as the Red Snail except that the body and shell are black. A good scavenger and very prolific. 79. Melantho Snails (Melanopsis graellsi.) They have spiral shells like the "Horn of Plenty." They are very active and very hardy.

80. Clams or Fresh Water Mussels. They are of great value in clearing up green water. A microscope will show that green water is minute bodies of algae. Mussels live by filtering great quantities of the green water and retaining the algae as food. They operate best in a few inches of soil or sand on the bottom of pool where they partly bury themselves. (Continued on page 8)

[7]

81. American Salamanders. These are harmless and interesting little fellows. Their back is a golden brown with red lines, and underneath they are brown with yellow spots. They feed on pond insects.

82. Tadpoles. They are frogs in the larvae stage, and they are very active in devouring algae and decayed matter.

ORNAMENTAL FISH for Pools and Aquariums

A water garden is always beautiful and picturesque, but when you add colored goldfish, then your pool becomes the most alluring spot in your garden. Aside from their ornamental value they are of great use for the extermination of mosquito larvae. They are also useful for eating the decayed leaves of the water plants. All of our goldfish are in perfect health and in good condition. Fish which are sold for pool purposes have been bred and raised outdoors. All of the goldfish listed below except the Fantails and Black Moors may be left outdoors during the winter.

Very Important-Please Read. The reason for the loss of fish, whether they are shipped by express or taken home from our place personally, is in most cases because of improper handling upon arrival. Even after the fish have been in the pool for several weeks, their loss may be traced back to the aforesaid cause.

There are two important steps to be taken for the proper handling of fish and plants. *First*—The pool should be filled with water for at least three days before introducing the fish and plants. Second-The fish should be taken out of the container in which they are received and placed in the pool immediately after they arrive. During transit in crowded cans or containers the fish will use up all of the oxygen content of the water; therefore immediate transfer of the fish into a body of water will full oxygen content is absolutely necessary.

Slight injuries or bruises are often unavoidable when fish are trans-ported in cans or containers. This may make the fish easy piey for various fish diseases-especially fungus. To be prepared for such an emergency we recommend that you have on hand a bottle of our Argucide (see description).

Caution, for Newly Constructed Concrete Pools the above mentioned 3 day old water does not apply. A newly constructed pool should be seasoned or cured by draining and refiling the pool at least five times for a period of two weeks. This seasoning or curing may be accom-plished in a period of three to four days by the use of strong vinegar— 1 quart to 100 gallons of pool water. After four days drain, clean thoroughly, and refill, allowing the water to stand for 3 days before introducing the fish and plants.

83. Selected Goldfish. A fine strain of lively, brilliantly colored fish with beautiful markings of black, red, and silver. These fish are the best for mosquito larvae extermination. We wish to call your attention to the fact that 6 small fish eat more mosquito larvae than 1 large fish costing the same as the small fish.

84. Selected Comet Tail Goldfish. These fish are similar in color to the Selected Goldfish, but they have longer and more graceful tails and fins.

Both the above mentioned goldfish come in sizes of from 2" to 7". 85. Giant Goldfish. They are 8 to 10 inches long, and they have well developed fins and beautiful coloring. (Not suitable for aquariums or small pools.)

86. Calico Fish or Shubunkins. The name Shubunkin means Autumn Brocade. These fish have all of the colors of autumn foliage-red, gold, black, brown, lavender, white, and blue. The last named is the predominating color. They are hardy and active.

87. Telescope Moors (Black). These unique and exotic fish are a dense velvety black color which contrasts vividly among the red, gold, and silver colored fish.

88. Fantails. A beautiful variety with black and silver markings on red gold bodies. The tail is double and is spread like a fan.

89. Calico Fantails. These fish are marked like Shubunkins, but they have double, fan-like tails and short bodies.

Please note: The different sizes, with the prices, of all the fish listed on this page may be found on the order sheet.

90. Goldfish Food. Our outdoor goldfish food will help bring brighter coloration to your fish. It is pleasant to the fishes' taste as is evidenced by the eagerness with which they look forward to their daily feeding.

SEE ORDER SHEET FOR PRICES

READ WHAT CUSTOMERS SAY:

From Bethel, Connecticut "The pool plants came in fine condition 2 days ago and the fish arrived safely today and seem happy in their new home. Thank you for such excellent service, packing and fine goods."

From Fall River, Massachusetts "Fish, Scavengers and Plants in perfect condition."

From Great Neck, New York

rrom Great Neck, New Tork "The plants are splendid and arrived in perfect condition. The water filly and poppies are already in bloom. We are delighted with them.

Fish Remedy

92. Argucide. The safe and low cost remedy for killing fish lice and other harmful parasites which attack goldfish in pools or tanks. It also destroys algae, helps to keep the water clear, and keeps the goldfish healthy. Complete directions with each package. It is packed in 2-oz. and $4\frac{1}{2}$ -oz. jars, sufficient to treat 1250 or 3000 gallons of water.

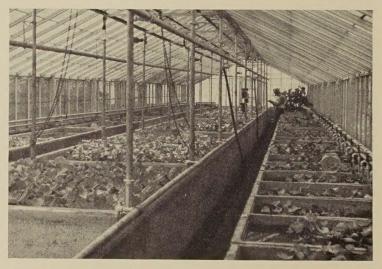
Pool Paint

91. Denso Sub Aqua Paint (The Underwater Concrete Enamel). This is a specially formulated, nonpoisonous coating for use in aquariums, lily pools, swimming pools or any concrete surface constantly under water. It greatly enhances the beauty of the pool by taking away the drab appearance of un-painted concrete. Stops minor leaks. Comes in a beautiful shade of sky blue.

Scenes from Joseph Lingg Aquatic Gardens



Shown above are a few of hundreds of small outdoor concrete pools where water-lilies are propagated. They are carefully watched and nourished to healthy plant life.



The latest and largest addition to the Joseph Lingg Aquatic Garden greenhouses. Water-lilies are transplanted to allow for growth.

JOSEPH LINGG AQUATIC GARDENS INC. ARDSLEY, NEW YORK

WATER LILIES AND AQUATICS



Mrs. George H. Pring No. 28



Paul Hariot No. 15



Gonnere No. 4

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Sunrise No. 13

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SEE ORDER SHEET FOR PRICES

WATER LILIES AND AQUATICS



Primrose Willow No. 53



Purple Hyacinth No. 44



Water Poppy No. 43



Water Hyacinth No. 46

SEE ORDER SHEET FOR PRICES

Joseph Lingg Aquatic Gardens, Inc. ARDSLEY, NEW YORK