

On Some Early Publications of the Boston Aquarium Society. Part Three: 1933. The Home Aquarium [AKA THE BALANCED AQUARIUM.]

By Lee Finley

In this part of the series coverage is given to another publication that was managed and put together by the talented club member Eugenia S. Shorrock.

A number of interesting questions surround this little-known publication. First among these is the title. The front cover states “The Home Aquarium.” But in turning to page three the article therein is headed with “The Balanced Aquarium.” And, from page three onward the header states the latter. By page priority the first of these has been used in a couple of sources and by this method it is the title of use. With the explanation of this I can live with it.

The second question regards the date of publication which is nowhere evident in the publication. The Meserves, in their history of the Boston society, offer no help with this in that they don’t mention it at all. Obviously, an oversight. Jare Sausaman in his 1994 Checklist does list the title but provides no date of publication. But, some limited advertising does provide an answer. In the April 1933 issue of Aquatic Live magazine (on page 541) there is a boxed advertisement for the piece using “The Home Aquarium” name. The advertisement notes it to be published by the Boston Aquarium Society, and it is stated to be for sale for “10 cents plus 2 cent postage.” A second notice is seen in The Home Aquarium Bulletin magazine for May 1933. The name of the publication is not used [?] but in that a second Boston publication by the same author…C.H. Peters… is from a later date it is no doubt a reference to the publication under discussion herein. Interestingly the price is listed as the same, but the needed postage is stated to be “…3 cent…”. The second piece written by Peters will be the subject of Part Four of this series.

Lastly is when did this publication get first used. The Boston club’s annual show for the year 1933 took place on February fourth through the 11th

(Anonymous 1933). It potentially could have been available for sale by then. Additionally the society, according to the Meserves, provided a smaller show for the New England Spring Flower show which took place in May (13th through the 18th). It would have been available by then. For now, that appears to be the available information on this topic.

Lastly, a few words are needed on the author of the publication, Charles H. Peters. He, who went by the name C.H. Peters, was among a group of aquarists who had a great, and positive, impact on the aquarium hobby in the 1930's. He was the Editor of The Home Aquarium magazine and the author of the 1934 book "Live and Love in the Aquarium." The book was heavily illustrated in color and black and white illustrations by Henry Uhlig, an accomplished fish artist, who did the four illustrations that are present in the publication discussed here.

As noted, Part Four of this series will discuss another Boston society publication written by Peters and put together by Eugenia S. Shorrock. In this piece, I will be covering more of this author's importance to the aquarium hobby.

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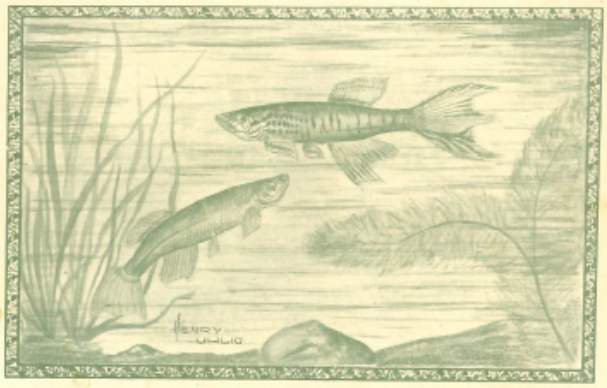
THE HOME AQUARIUM

By

C. H. PETERS

Editor Home Aquarium Bulletin

President Newark Aquarium Society



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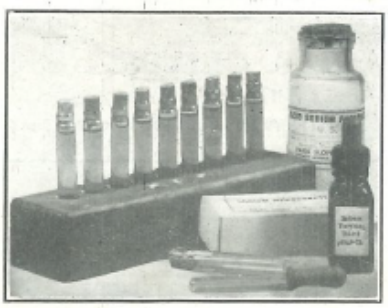
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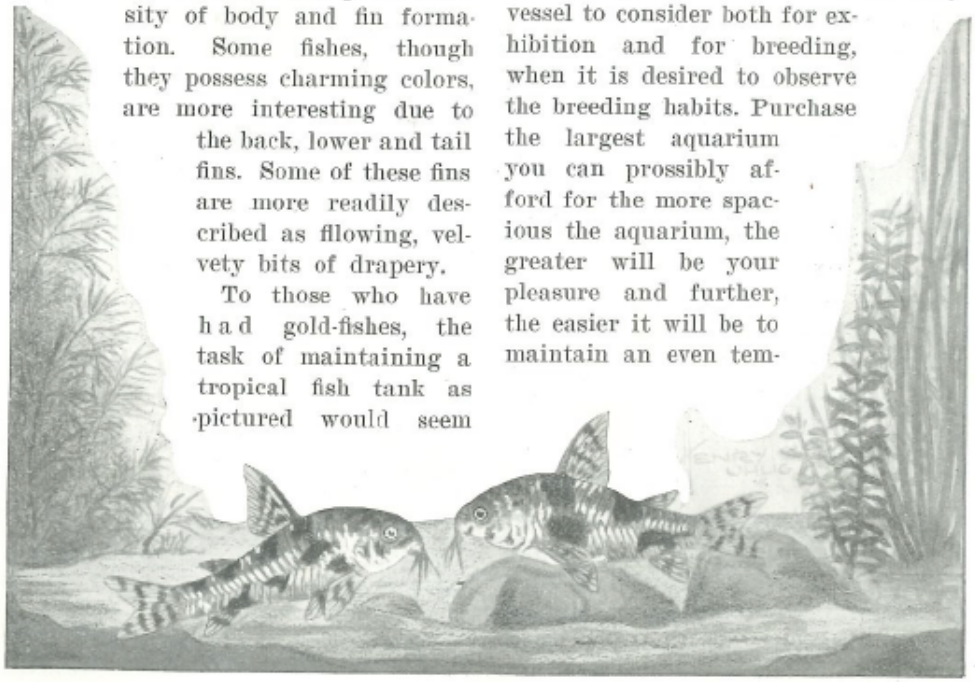
AS a fascinating, highly instructive, and economical pastime, we recommend the hobby of maintaining aquarium fishes, particularly the exotic tropical fishes.

Picture an aquarium in your home with a dozen varieties of aquatic plants, some of them even blooming, and landscaped like a miniature garden. Then imagine, in the foreground of this charming garden, the flashing forms of multicolored tiny fishes. It is almost impossible to conceive the beauty of this ensemble with its bits of silver, gold, blue, red and yellow against a background of thriving green plants. To provide further variety, jet black fishes and many more sombre-colored fishes are available.

Tropical fishes present not only a multitude of color but also great diversity of body and fin formation. Some fishes, though they possess charming colors, are more interesting due to the back, lower and tail fins. Some of these fins are more readily described as flowing, velvety bits of drapery.

To those who have had gold-fishes, the task of maintaining a tropical fish tank as pictured would seem impossible. But, due to a remarkable difference in the requirements necessary to keep these fishes healthy and happy, the problem is simple. THE WATER IN AN AQUARIUM NEED NOT AND SHOULD NOT BE CHANGED. An aquarium properly planted and properly located as to light, and not overstocked with fishes will thrive indefinitely with but little attention. The cycle of life in the aquarium is maintained by the interchange of vital elements between the animal and plant life. The water in a well-arranged aquarium is always crystal clear and absolutely pure.

The globe or bowl is not to be considered when selecting the container for fishes. They have insufficient air surface for the volume and they distort the vision. The rectangular, metal-framed aquarium or tank is the only vessel to consider both for exhibition and for breeding, when it is desired to observe the breeding habits. Purchase the largest aquarium you can prossibly afford for the more spacious the aquarium, the greater will be your pleasure and further, the easier it will be to maintain an even tem-



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perature and a healthy condition of the water.

Locate your aquarium where it will receive strong light all day long and preferably a few hours of direct sun. The reason for this will be made clear later on.

Temperature is a very important consideration. Tropical fishes thrive and display their best color only if the temperature of the water does not fall below 70°. The ideal range of temperature is from 75° in the winter to 85° in the summer. Temperatures lower than 70° or abrupt fluctuations of temperature may induce various fish ailments oftentimes with fatal results. If room temperature is not satisfactory even temperature is easily maintained by means of an electric heater and a thermostat.

We may next consider the function of plants. Fishes need oxygen just as we do, and this oxygen they obtain directly from the water by means of their gills. As this oxygen is taken out of the water by the fishes it is continually replaced by two means—by absorption from the atmosphere at the surface and by plants which liberate oxygen under the action of light. The plants also take up certain waste products of the fishes, especially carbon dioxide, which would soon poison the fishes unless removed. Their roots also take up waste matter from the sand.

There are three genera of plants which are especially good oxygenators. Sagittaria and Vallisneria are grass-like rooted plants and are available in several species. The most commonly used are Sagittaria sinensis, S. subulata, S. natans, S. pusilla and Vallisneria spiralis. Anacharis is quite different in appearance — its lanceolate leaves are in whorls on a fairly heavy stem about a half-inch apart. It may be planted but is often left floating in the water.

Many other plants are readily obtainable and should be used in addition to the above to add to the attractive appearance of the aquarium. Some especially useful ones are Ludwigea, Bacopa, Myriophyllum, Heteranthera, Cryptocoryne, Micranthemum, Elodea Spatterdock and Hornwort. Too many plants can hardly be used if sufficient unobstructed swimming space is left for the fishes.

Surface plants are often used to provide refuge for baby fishes. Best known are Riccia, Dwarf Bladderwort and Water Fern.

It must be remembered that plants must thrive in order to liberate oxygen. Plants properly placed in regard to sunshine and light will thrive and work well.

As in nature, a leaf or two of the plants will occasionally decay and be replaced by new leaves. Aquatic snails are used to consume any food left uneaten by the fishes and to consume the decaying vegetation. No tank without its quota of snails is properly balanced.

One result of decay of vegetable matter is the production of acid and this acid if allowed to accumulate may be injurious to the fishes. To offset this, small cakes of plaster of paris are placed in the aquarium. When acids are present in the water they react with the plaster of paris and are neutralized. Replace the plaster of paris as fast as it disappears. If you prefer, use one of the several commercial products—their basis is plaster of paris.

Clear coarse sand is used for the bottom of the aquarium to a depth of about two inches. A pound of sand will cover twelve square inches to this depth. Avoid the use of shells, cement castles and artificially colored objects.

A sheet of glass should be purchased to cover the top of the tank. It will

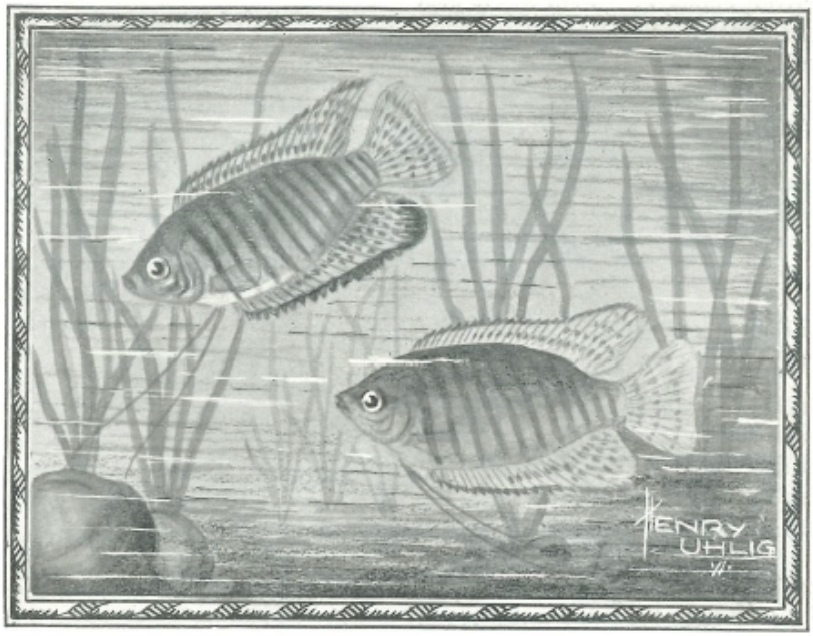
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keep dust out and fishes in, and prevent rapid evaporation of the water. At all times, whether in the tank or in a temporary container, keep the fishes covered as tropical fish are notorious jumpers and many fishes are lost from this cause.

The aquarist, even the novice, should have certain other equipment. Especially useful are about four feet of half-inch rubber tubing for syphoning, an aquarium thermometer, a 3 by 3 inch net, planting tongs and a scraper for cleaning the inside of the glass.

Now let us assemble these parts to make a real home for our fishes. Thoroughly wash the aquarium with a strong salt solution (never use any soap or washing compound) and rinse to remove any oil that may be present. Place the aquarium in the selected location and put in two inches of clean gravel. Clean by flushing with water and stir well. The gravel is sufficiently clean when the water runs clear. Now fill the tank with water and add a teaspoonful of evaporated sea-salt to each five gallons of water or use one of the excellent "fish tonics" composed of various chemicals as directed.

Now the planting may be done and this is where your aquarium may be made a thing of real beauty. The secret lies in choosing a variety of plants — in color, shape of leaves, and habit of growth, and arranging them naturally and artistically. In general the taller plants should be at the rear and ends so that the swimming space for the fishes is at the front. Natural stones of pleasing shape and color may be effectively used. Rooted plants should not have their crowns buried in the sand.



DWARF GOURAMI

Courtesy of Home Aquarium Bulletin.

The aquarium should now stand for at least a week when you may begin to introduce fishes and snails provided the water is perfectly clear and the temperature correct. It is preferable to begin with a few hardy egg-layers add-

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ing live-bearers when the water is well "ripened".

BE SURE THE TEMPERATURE IS CORRECT.

There are many scientifically prepared foods now on the market and these are readily accepted by most of our aquarium fishes. Purchase several of these and feed your fishes a different food daily. Live foods (white worms, tubifex worms, daphne, etc.) should be fed as often as possible but if these are not available substitute finely scraped beef, liver, clams, etc. Fish roe is also an excellent food. Feed your fishes twice a day and give them only what they will clean up in ten minutes. Proper feeding is not easily learned and if not correctly done the surplus food will decay and foul the water. ADHERE TO THE TEN-MINUTE RULE AND BE SAFE.

GETTING ACQUAINTED WITH OUR AQUARIUM FISHES.

The following pages are intended to be merely a survey of our aquarium fishes and only a few representative species are mentioned, leaving the novice to gradually acquaint himself with hundreds of others as he delves deeper into the hobby. For convenience we shall consider the fishes under seven groups:

1. Poeciliidae, or live-bearing tooth-carps.
2. Cyrinodontidae, or egg-laying tooth-carps.
3. Cyprinidae, or carps.
4. Characinidae, or spawning tetras.
5. Anabantidae (Labyrinths) or bubble-nest builders.
6. Cichlidae, egg layers usually spawning on stones and noted for their parental care.

Group 1—Poeciliidae,

The members of this group are inexpensive, hardy, prolific, require no great knowledge to breed, are very diverse in color and in many cases different species cross to produce interesting hybrids. This is the most popular group with both novice and advanced fancier. With but two exceptions (Gambusia and Belonesox) they are peaceful, showy and friendly and make good community tank members. They are found only in the Americas.

As the name implies, the young are born alive and are independent of parental care. The young generally resemble the female, the characteristics of the male appearing as they mature. Unless thick plants are provided for the young to hide in, they are often eaten by the parents.

The most common member of this group is the tiny but highly colored Guppy, Lebistes reticulatus. (Lebistes —little fish from Lebias; reticulatus—netted.) The males are about an inch long, slender-bodied and a riot of color. The females are much larger, less graceful and plain olive green in color. The beginner is advised to begin with this species as they are hardy and inexpensive — although new strains are being produced that bring fancy prices.

Next in popularity are the Moons or Platies, Platypoecilus maculatus (Platypoecilus — broad-bodied, vari-colored, maculatus—spotted). There are many color varieties of this fish—blue, black, gold, red, etc.

Vieing for popularity with the Moons is the Mexican swordtail Xiphophorus helleri (Xiphophorus — sword-bearer; helleri—named after Heller). The body is long, green in color with a red stripe from eyes to tail and the lower part of the tail of the male is extended to form a sword. The sword is either green or orange, bordered with black. Well de-

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veloped specimens are three inches long exclusive of tail but smaller specimens (runts) are best for the community tank.

Numerous beautiful hybrids have been produced by crossing moons with swordtails. The hybrid gets its color from the moon and its shape from the swordtail.

Another beautiful fish is the jet-black Mollienisia or Black Mollie as it is commonly called. The original wild fish were of an inconspicuous black-spotted grey color and the present velvety black is due to careful selective breeding. It grows to be about two inches long. Immature fish resemble wild stock.

There are dozens more live-bearers available but the ones noted are the favorites.

Group 2—Cyprinodontidae,

These fishes are known as egg-laying tooth-carps.

The Panchax family includes some gorgeous fishes but they are not popular because of hide-away and fin-biting habits. Best liked are Panchax panchax. P. chaperi, P. playfairii and P. parvus (Pearl Panchax).

Aphyosemion australe (the lyre-tailed panchax) is a beautiful fish whose color and fins no one can adequately describe. Contrary to common belief they ARE hardy.

The Rivulus family resembles the Panchax family in many ways. They are shy, sluggish and fin-biters. The notable exception is the beautiful, active and hardy Rivulus cylindraceus (Green Rivulus from Cuba).

The Fundulus family is best avoided by the novice unless perchance he likes Fundulus nottii (Florida).

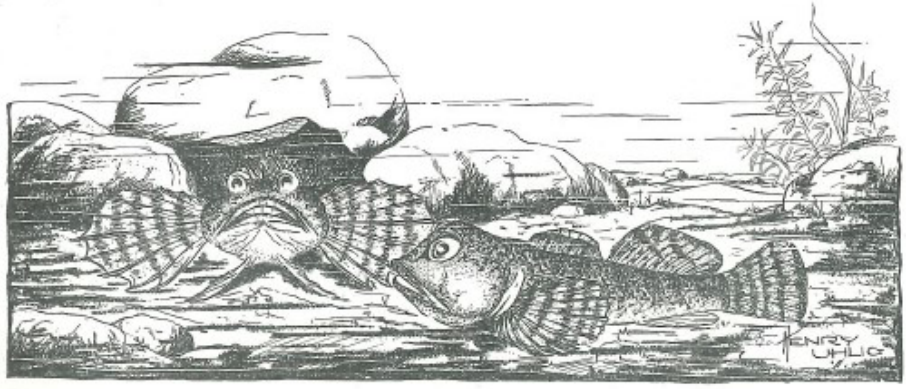
Group 3—Cyprinidae,

These are the carp-like fishes. The Brachydanios are the aquarists' favorite of this group.

The Zebra Fish or Brachydanio rerio (Bengal) is familiar to every aquarist and should be in even the smallest collection. The body is 1½ inches long, streamlined, and striped from eyes to tail with alternate stripes of silver and blue. The larger fins are similarly marked. They are very hardy, active fishes.

Brachydanio albolineatus or Pearl Danio (Burma) is somewhat larger than the Zebra. The body has a warm, irridescent lavendar hue and has a subdued reddish line extending from the middle of the body through the tail.

Brachydanio nigrofasciata (B. analipunctatus) or Spotted Danio (Burma) is smaller than the Zebra and a trifle heavier-bodied. The body is green above and cream colored, spotted with black below. From the eyes through the tail



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are stripes of blue and gold. Upper and lower fins have gold borders.

The Barbs form another large and popular group. The name comes from the barbels (whiskers) around the mouth. They are characterized by large, brilliant scales.

The Rosy Barb, Barbus conchonius (India), is very common. The back is iridescent olive-green, the sides a brilliant silver. At the root of the tail is a black spot edged with gold. The male is covered with a beautiful ruddy copper which is greatly intensified at breeding time.

Barbus oligolepis (Sumatra) is the most beautiful Barb, but since it is not as often bred as the others is quite scarce. The body of the male is copper-colored with a bluish irridescence. The fins are relatively large and orange-red with black borders. The female is less brilliantly colored.

The Barbs have one interesting exception the live-bearing Barbus vivipara.

The Rasboras are the outstanding specimens in any collection, but they are so rarely bred (most are caught wild) that they are very high in price. Rasbora heteromorpha (Malay Peninsula) is the most sought after. It is a little more than an inch long, old rose in color and adorned with a large blue-black triangle. They are quite hardy and peaceable.

Group 4—Characinidae,

The Characins are a large group of egg-layers, about four hundred species are known to the aquarist. The group includes some of the most feared fishes of the tropics as well as many prime favorites of the aquarist.

The most common one in collections is Tetra from Rio (Hyphessobrycon flammeus). The body is a trifle more than an inch long and quite deep. The fins are relatively large and flaming red in color. This red usually spreads well into the silver of the body.

Another favorite is the unique Head-and-tail-light (Hemigrammus ocellifer). It is a deep-bodied silver fish with yellowish fins. The striking features are the two bright, strongly-reflecting spots, one in the eye the other at the base of the tail.

One of the most charming members is Pristella riddlei with its black and white fins.

It is interesting to note that one fish of this group (Copeinia guttata) lays its eggs out of water. The male splashes water on them to keep them moist.

Group 5—Anabantidae (Labyrinths)

This group, the bubble-nest builders, are interesting in many ways. They have an auxiliary breathing apparatus which enables them to utilize atmospheric air and therefore can survive in rather foul water or cramped quarters. This same apparatus is used by the male to construct a floating nest of bubbles in which the eggs are deposited each enclosed in a bubble. After spawning the male drives off the female and assumes charge of the nest.

One of the first tropicals to reach this country was of this group — the Paradise Fish. In spite of its pugnacity (it must not be kept with other fishes) it is still popular. Both sexes are gorgeously colored and the males have beautifully developed fins.

The Betta or Siamese Fighting Fish is wonderfully colored and many strains have veil-tails but they are very savage. They are readily bred and only the finest show specimens bring high prices.

The best fish of this group for the community tank is the peaceful and

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beautiful Colisa lalia (Bengal). It is commonly known as the Dwarf Gourami. The body is about 2½ inches long, almost round and striped alternately with orange-red and blue. Every community tank should have a pair.

Group 6—Cichlidae,

This is the most interesting group of fishes and in spite of their ferocious nature, every aquarist worthy of the name should breed at least one species. In Germany and England they are greatly favored. They are usually highly colored and their breeding habits are extremely fascinating.

The Angel Fish (Pterophyllum scalare and P. eimeckii) is the best known of the group and is often referred to as the aristocrat of the aquarium. Like many another artistocrat it is temperamental and may without apparent cause refuse to eat, oftentimes with fatal results. It is one exception of this group and is peaceful and dignified. Given some live food it is also very hardy. The body is round and laterally compressed and crossed with three black bands. The striking features are the large stiff dorsal and anal fins stretching across the body like an archer's bow. It is very different from any other fish and difficult to describe. Specimens should be found in every collection.

The Jewel Fish is typical of the group but its gorgeous color and highly developed parental instincts have won many admirers. The average aquarium specimen is three inches long and the body is a beautiful shade of red studded with pearl colored spots. Sex is not easy to determine. They are difficult to mate but once this is accomplished they breed readily. They must never be placed in a tank with other fishes.

One of the most interesting of aquarium fishes is the Egyptian Mouthbreeder (Paratilapia multicolor). The female carries the eggs in her mouth until they hatch and even after they hatch the babies for several days use her mouth as refuge when frightened. Incubation takes nearly two weeks and during this time the female does not eat. They breed readily and are hardy.

Group 7—Miscellaneous,

In addition to the above groups there are several other groups kept in aquaria. Of these we shall but mention the quaint and amusing Brazilian Catfishes, the Glass Fish, Badis badis, Polycentrus Schomburgki and the charming Black-banded Sunfish or Poor Man's Angel Fish.

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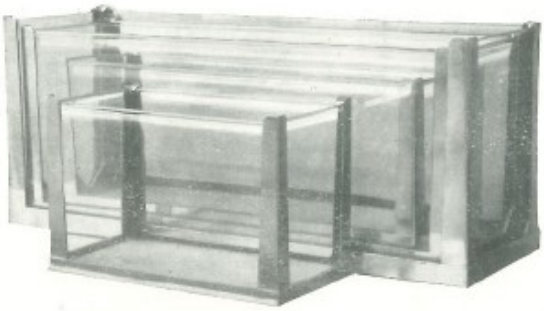
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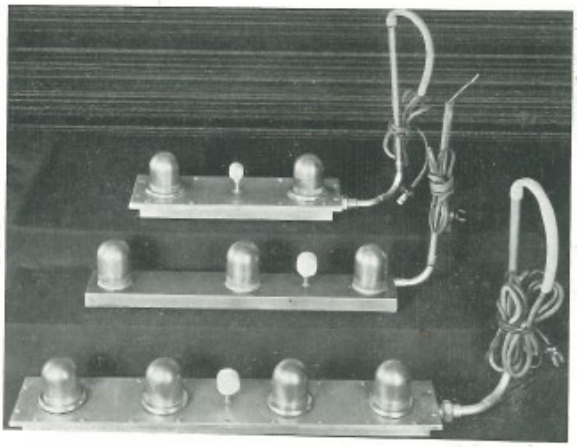
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What is a good food? You are told that a certain food contains Vitamin this and Vitamin that, or is exposed to ultra-violet or sun treatment. You are also told that Vitamin D prevents rickets, promotes growth, and you are led to believe that a food containing Vitamin D is preferable to other foods. Now then, how much of this Vitamin D is *necessary* to accomplish this purpose, and is a food exposed to ultra-violet ray possessed of the proper amount of Vitamin D? Any honest chemist will tell you that you can incorporate Vitamin D or, for that matter, A, B, C, D and G. in a food; but unless these vitamins are incorporated in a staple form they will entirely disappear from the food.

Furthermore, this chemist will also tell you that while certain Vitamins are essential in certain proportions an over dose of some Vitamins will actually kill your fish.

How many fish food manufacturers *really know* what the proper amount of each Vitamin is to be incorporated in their food? Our honest opinion is, that a great deal of this Vitamin talk is just used as so much smoke screen to sell an inferior food. A properly blended food, rich in proteins, carbohydrates, minerals and iron, will contain all the Vitamins necessary for your fish.

How then are you to know whether a certain food is properly balanced? Don't think for a moment that when you throw some fish food into your tank and the fish just gobble it up that that is a good food. It may be very bad for your fish though very palatable. On the other hand, a food that fish do not like may be very good for them, though it is not palatable. A good food must be properly balanced and at the same time palatable.

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