

AQUARIA THAT ARE BALANCED

Beware of the Predominance of Animal Over Vegetable Life—Some Directions for Running a Small Water Garden—Water Plants Which Are Good Aerators—How Aquaria Are Supplied for the New York Schools.

The laboratory of the New York Aquarium has a fine collection of fresh and salt water aquaria, of the kind known as "balanced," or self-sustaining, says the New York Zoological Society Bulletin.

Brooks of the country furnish a large majority of the plants named, and there are other species of water-plants which can be found in various localities that might be good aerators, but care must be taken to select those that make trouble in the balanced aquarium.



A BALANCED FRESH WATER AQUARIUM.

Aquarium be put to no expense for jars or fixtures. The teachers have exhibited so much interest in the matter that it has been found desirable to prepare brief instructions regarding the establishment of such collections, and the proper way of caring for them.

How to Make an Aquarium. The following directions for the care of balanced aquaria have been prepared by Mr. L. R. Spencer, who is in charge of the collection in the laboratory of the New York Aquarium.

"Probably a majority of those who keep small aquaria, with a few goldfish as inhabitants, make a practice of frequently changing a part of the water, that the fishes may not die for lack of air. If the person who cares for them forgets to change the water or does not do so often enough the chances are that some or all of the fishes may die.

"There are fresh-water aquaria at the New York Aquarium in which the water has not been changed for more than three years, and are at the present time in excellent condition. The loss by evaporation must necessarily be supplied by adding fresh water and of course water from the collection in the laboratory of the New York Aquarium.

"Round glass aquaria (with perpendicular sides) which will hold from two to twenty gallons of water, can be bought at very reasonable prices, and for home use those holding from three to eight gallons are convenient size. Aquaria, rectangular in shape, with iron frames and glass sides and ends, are preferred by many. Glass globes are not at all desirable, as they are not easily kept clean and fishes do not thrive in them.

"For the bottom of the aquarium use clean washed 'bird gravel,' also a little coarse gravel is preferable. The gravel looks well, the plants which are necessary to maintain the balance work well in it, and it is easily kept clean. About two inches of gravel will be necessary to hold the plants down.

"There are several species of waterplants which are good aerators, one of the best being a grass-like plant known as Sagittaria. It roots firmly in the gravel and sends off shoots in different directions, from which new plants soon grow. Valisneria is another grass-like plant suitable for aquaria. It is found in the streams in the vicinity of Paris, N. J. Other useful species are milfoil, parrot's feather, Potamogeton—a common pond weed, Anacharis or water thyme—a profuse grower, and Fennell—a moss-like plant. Cabomba is a good plant for the aquarium and can generally be produced thru the year. Of floating plants there are several species which are very pretty and are all more or less useful either as aid aeration or as a home for the propagation of myriads of minute animal forms which are food for some of the occupants of the aquarium. Nitzella is very pretty, growing in masses, very fine and hairlike. Riccia is in quite general use and thrives well. There are several species of what are commonly known as duck-weeds, which are easily procured. The ponds and

brooks of the country furnish a large majority of the plants named, and there are other species of water-plants which can be found in various localities that might be good aerators, but care must be taken to select those that make trouble in the balanced aquarium. Risks should not be taken, and it is not necessary to use more than three or four species of plants at one time. Plants well rooted will stay down when buried in the gravel, if not, it will be necessary to wind a strip of sheet lead loosely around the bottom of each small cluster of stalks before placing them in the gravel.

"A little rockwork will add to the beauty of the aquarium. It is well to exercise care when putting in the water that the plants may not be disturbed. The aquarium should stand for a day or two at least before adding the animal life, that the plants may have time to perform their work of supplying air to the water.

As to Animal Life.

"Some of the common varieties of gold-fishes are found in most balanced aquaria, and are easily kept. There are several species of the sunfish family, all of which are attractive and thrive well. The freshwater stickleback is fairly hardy, and if well cared for will build a nest and produce young. Tadpoles are easily procured and are interesting, but the odd-acting acrobatic little newts will afford more pleasure by their comical actions than all the other inhabitants of the aquarium. Snails are desirable in the collection, as they will eat some of the small particles of food which the fishes leave. The best kind is the Physa, which is common and will breed in the aquarium. Another species, the Planorbis, does fairly well. There are other members of the snail family which may be used, but it is best to be cautious at first and not try to keep too great a variety of animals until one has had considerable experience. Never overstock the aquarium with animal life. Always have an abundance of fresh growing plants to furnish a supply of oxygen, and the animal life will not suffer for lack of air in the water. In feeding the animal life, care should be taken to keep the water clean, and to stop feeding, for if the water is to be kept in a healthy condition all dead matter

must be removed a few hours after feeding, or foraging will take place and the color will be overdone. Refuse is removed by means of a glass tube with a hole three-eighths of an inch in diameter. Place the thumb tightly over the upper end, insert the lower end of the tube in the water over the substance to be removed, raise the thumb slightly, and the waste matter will instantly rise in the tube, when the top may be closed and the tube removed.

A fresh-water aquarium does not require direct sunlight. The glass may be cleaned by a padded block of wood on a stick. Avoid resetting a fresh-water aquarium as long as possible, as it disturbs the rooted plants.

In a four or five gallon fresh-water aquarium, when it is well balanced, the following life may be maintained: Fishes from 1 1/2 to 3/4 inches long, three or four; snails, four or five; tadpoles, if not too large, three; snails, six or eight.

"The report shows that in the year the society disposed of 1,530 cases of children in the city, 1,100 of which were reported to the office, the rest being found by the agents. Sixteen arrests were made and twelve convictions secured.

"The section of the report which deals with the work done for human beings shows that 1,183 persons were involved. These cases were as follows: Children removed, 88; abandoned by parents, 8; involved from improper surroundings, 16; sent to the state public school, 30; sent to the state training school for boys at Washburn home, 7; placed temporarily in Bethany home, 8; placed in private homes, 12; placed in Catholic orphanage, 5; placed with Children's Society, 2; placed in country, 4; placed in home for feeble minded, 2; sent to the city hospital, 2; placed temporarily in Sheltering Arms, 2; persons removed for cruelty to or neglect of children, 391; persons removed for allowing children to visit saloons, 4; children cared for temporarily by the society, 55. Young girls involved, 153; taken from immoral surroundings, 7; sent to state training school, 3; sent to maternity hospital, 1; sent to their homes out of the city, 2; given good homes, 3; placed in House of Good Shepherd, 4; placed in Florence Crittenton home, 1; found on street late at night and sent home, 73. Men involved, 45; forced to return to city and support their wives, 3; sent to city hospital, 2; sent to poor farm, 1. Women involved, 91; sent to city hospital, 3; sent to insane asylum, 1. Cases of non-support, 45.

"Of the individual cases referred to in the report, many are interesting and the report of the report shows the methods employed in handling the cases reported.

BOYS SPOIL A MEETING. The Holy Jumpers, a religious sect that has been holding meetings in a vacant store building at Bloomington avenue and Lake street, did not meet last night as intended. They gathered at the building only to find that some boys had installed an apparatus for generating an offensive gas and it was impossible to remain in the building. The residents of that section of the city are highly incensed at the action of the boys and police protection will be asked for the worshippers.

Get Your Oxfords On. They're at the Nickel Plate.

The Plymouth Clothing House

Ladies' Custom Tailoring. A new lot of models and designs embodying the newest French and English ideas in Summer dresses will make this department a very interesting place in which to spend a short time to-morrow:

- Reception Gowns, Walking Suits, Outing Suits, Automobile Coats, Street-Gowns, Traveling Suits, Carriage Wraps, Riding Habits, Etc.



Finer Shirt Waist Suits. The first signs of warm weather bring out the Shirt Waist Suit, that pretty summer gown combining comfort and style.

Among the new arrivals are a lot of thin stuffs, silks mostly, pongees, foulards and figures, although the light weight etamines and crepe cloths have not been forgotten. The lines of these dresses are very simple, but the material very costly. Price \$25 to \$50.

Dress Skirts at \$5. Cut full length from chevrons and worsteds; generous flare and flounce; some are kilted; come in black, grey and colors; skirts that have been priced earlier in the season at \$8, \$10 and even \$12. Tomorrow \$5.

75c Ribbons 25c per Yard. IN MILLINERY DEPARTMENT. An immense assortment of imported ribbons which our representative has just secured and expressed to us.

Corsets and Vests. CORSETS. Some bargains the ladies will appreciate—a large line of the daintiest and best summer corsets at great price reductions.

Imperial Hat \$3. One of the most stylish New York stiff hats this season, and sold exclusively by us.

French Half Hose. A very neat stocking to wear with low shoes. A delicate French gray with vertical black stripes or fancy figures just as your fancy dictates.

French Balbriggan. 50c—Our own importation of genuine French balbriggan shirts and drawers, real fine finish combed yarns; French neck, pearl buttons; shirts, long or short sleeves; drawers, large double seats, come in regular lengths and stouts.

GREATEST REDUCTION AND LAST SALE OF RAINCOATS.

\$20, \$25 and \$30 Raincoats, \$15. The man who does not already possess one of those long, luxurious Raincoats should not let this opportunity pass.

They are called Raincoats, but in truth their waterproof quality is of the least importance, for they are indispensable as a traveling garment, are most fashionable when worn over evening dress and are distinctly in vogue as a spring coat. There is an unusually large assortment in this great sale—over one hundred coats in all, including Genuine Priestly Cravenettes and Imported Lonaon Raincoats. There are Scotch tweeds and chevrons and the finer twisted worsteds, in both light and dark colors, all of which are in special demand this year.

It is a grand assortment of fabrics and colors, originally selling at \$25 and \$30—none less than \$20. Tomorrow they all go at \$15.



Imperial Hat \$3.

One of the most stylish New York stiff hats this season, and sold exclusively by us.

We show in this line all the extreme novelties, as well as conservative styles in both soft and stiff hats. In Derbies, the brown hat is winning its way to popularity. But the black is still a strong favorite. Of course, we've been showing advance styles for many weeks—showed you, and sold you, perhaps,—but today everything is ready, and you're probably ready for your new hat. Come in and see things, anyhow.

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CITY NEWS.

FIELD IS WIDENING

Minneapolis Humane Society Has Done Much Good Work in the Past Year.

Report of Secretary Shows That Society Disposed Of 1,530 Cases Last Year.

"The past year has been a highly successful one," said Mrs. Vera E. Bean, secretary of the Minneapolis Humane Society, in her annual report issued to-day.

"The report shows that in the year the society disposed of 1,530 cases, 1,100 of which were reported to the office, the rest being found by the agents. Sixteen arrests were made and twelve convictions secured.

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The Holy Jumpers, a religious sect that has been holding meetings in a vacant store building at Bloomington avenue and Lake street, did not meet last night as intended.

Get Your Oxfords On

They're at the Nickel Plate.

CAPITOL CERTIFICATES

State Board of Investments Takes \$300,000 Worth of Them.

The state capital commission yesterday sold to the state investment board, the only bidder, at par, \$300,000 in certificates of indebtedness, bearing interest at 3 per cent.

The board approved the following vouchers: Butler-Ryan company, steps and terracing, \$5,245.15; plastering, \$3,040.53; five proofing, \$589.90; Flour City Ornamental Iron Works, railings, \$2,731.08; W. I. Gray & Co., on the mechanical equipment, \$14,142.58.

DURING CONCERT TONIGHT

The Swedish Ladies' Quintet Will Sing at Plymouth Church This Evening.

The During Swedish Ladies' quintet, assisted by Curtis G. Moore, entertainer, will give its first concert in this city in Plymouth church this evening.

VOTES NEW WATERMAINS

The Council Committee on Waterworks Contracts for Material Are Decided Upon.

The Waterworks committee yesterday voted to recommend the laying of a thirty-inch distributing pipe from the reservoir to Twenty-fifth avenue NE on Central avenue, where it will connect with a network of pipes feeding all parts of the East Side, relieving the pressure at Prospect Park; also a twenty-four-inch distributing pipe from the North Side pump-

TREATMENT OF THE INSANE

Discussed at Meeting of Superintendents of State Institutions.

That insanity is a disease and that only old-time ignorance and prejudice would justify the treatment of the insane as criminals was emphasized yesterday by Dr. Tomlinson, superintendent of the St. Peter hospital, at the quarterly conference of superintendents of the state institutions. The superintendents met at the office of the board of control in St. Paul. Nevertheless, said Dr. Tomlinson, the law as to insane persons practically classes these unfortunate as criminals. They are brought before the criminal courts, they are "charged" with being insane as if they had committed a burglary or a murder; they are "committed" to an asylum, as if they had been tried and found guilty. They are put in charge of police officers and are often handcuffed. Yet who would order the arrest of a typhoid fever patient, however delirious? Who would think of restraining such a sufferer with handcuffs? Insanity, nevertheless, is quite as much a disease as typhoid fever.

SHORTENED ITS NAME

Minnesota Academy of Natural Sciences Is Now Minnesota Academy of Sciences.

A young child can't reason much better than an animal, said Professor Hallowell last night, at the library building before the Minnesota Academy of Sciences. But the professor expressed his belief so psychologically that it could not hurt the most devoted mother. He has been experimenting, he said, with children and with four-footed creatures.

Here's a String

...Make a knot... every time you eat an Apitezo Breakfast... ..20 knots... Twenty Apitezo Breakfasts ...Get rosy!

MUTES SUE FOR GAME

Two enthusiastic hunters, Charles Thompson and Alanson H. Spear, have begun suit in the Ramsey county district court to recover 115 duck and three geese—valued at \$350 and \$800 damages—from the Minnesota Cold Storage company. Both plaintiffs are deaf mutes and the trial is unique in that every question or answer has to be written.

CHERRIES ARE HIGH

New York, May 6.—Three pounds of California cherries, the first consignment of the season, have been sold here at auction for \$5 a pound, the highest price ever paid in New York.

Robins are here

Robins are here drink Hires Rootbeer. The greatest spring tonic. A package makes five gallons. Sold everywhere, or by mail for 25 cents. CHARLES E. HIRE'S CO., Baltimore, Md.



Some Undisputed Figures.

Advertising in April.

Table with 4 columns: The Journal (26 issues), Daily Tribune (26 issues), Daily and Sunday Tribune (30 issues), 1719 Cols., 973 Cols., 1462 Cols.

Canvass of Residence Districts.

Table with 4 columns: Residences Canvassed, Journals, Evening Tribunes, Morning Tribunes. Values: 4621, 3865, 869, 654. Second row: 69, 1128, 153, 167.

Large advertisement for Apitezo Breakfasts featuring a cartoon character holding a string and a ball, with text: 'Here's a String', '...Make a knot...', '...every time you eat an Apitezo Breakfast...', '...20 knots...', 'Twenty Apitezo Breakfasts', '...Get rosy!'.