

TINY GERM SPREADS DISEASE AMONG FISH

Diminutive Parasite Attacks the Gills.

Washington.—There are fish epidemics as well as human epidemics. Really serious ones due to a tiny parasite resembling in the name Ichthyophthirius multifiliis have occurred from time to time in France, Germany, Holland and in various parts of the United States. This parasite attacks freshwater fish, both in their natural environment and in aquaria with a resulting loss running into hundreds of dollars.

In a recent paper H. F. Prytherch of the United States bureau of fisheries describes various methods of controlling this disease in hatcheries, fish farms and all places where fish are kept in artificial confinement. To make clear how the problem can be attacked, he says, it is first necessary to understand something of the life history of the parasite.

"Polka Dots" Are Symptoms.

The young Ichthyophthirius, according to Mr. Prytherch, goes through a free swimming stage during which it wanders around through the water in search of a host. On coming in contact with a fish it burrows into some unscathed part, especially preferring the gills or fins. Once embedded in the fish's skin it grows rapidly from the nourishment it absorbs from the tissues and soon shows on the outside as a small white spot. Badly infected fish are covered with these "polka dots" all over their bodies.

In a few days this white body leaves the fish and sinks to the bottom, where it shortly undergoes a transformation into a hard-shelled reproductive cyst. When reproduction is complete the cyst wall bursts and releases hundreds of young parasites of the free-swimming stage.

Mr. Prytherch states: "There are two general methods for treating the disease—first, by killing the parasites while they are attached to the fish, and second, by destroying them after they leave the fish and are free-swimming in the water. The first general method can be used to hold the disease in check, but will not completely wipe it out."

Alum Sulphate Helps.

The logical time to begin treatment, he continues, is when the first symptoms of the disease appear and the whole fight in controlling the disease should be directed against reinfection. Direct application of alum sulphate has been found most efficacious in ridding the fish of the parasites. The healing action of the alum leaves the "patient" in a less weakened condition than any of the various other chemicals tried so far for this purpose.

The second method which attacks the adult parasite after it has left the fish is more successful and should be utilized, says Mr. Prytherch, wherever possible. It consists simply in placing the fish in swiftly running water where the parasites will be carried away before reproduction can take place. The overflow should be carried off both at the top and the bottom to take care of any that do not fall directly to the bottom. Infected fish, in warm weather, it is stated, may be cured in this way in a week or ten days and further epidemics prevented by quarantining new stock in running water. In some instances swiftly-flowing streams may be fenced off and used for this purpose by leaving the fish in the inclosure until cured.

Tadpoles and goldfish kept in tanks with fishes subject to this disease have been found extremely helpful in keeping it down, since they prey on the parasites for food.

Finds Movies Offer Field for Organist

New York.—Modern organists have found their greatest opportunity for development in a place where a few years ago it was least expected to exist—the American motion picture theater—says Dr. Melchiorre Mauro-Cotone, concert organist and composer. Many of the finest organs in the world are in the cinema palaces and the men who play them, in Doctor Cotone's opinion, reach larger audiences than they have ever had before. "There was a time," he said, "when it was thought the organ was not very adaptable to the motion picture theater. But we now know how false this opinion was. The organ is most elastic, even more so than the orchestra, and in playing for the screen we can switch instantly from one theme to another.

"Nothing more develops the improvisation of an organist. Here we also play all types of music. In the church, our range is narrow and there is little need of improvisation."

Heat in One Peanut Can Type 1,000 Words

Princeton, N. J.—One thousand words may be written on a typewriter with the expenditure of heat contained in a single peanut, Prof. Andrew Hunter of the University of California said. The amount of heat given off by persons in various occupations during a day he estimates as: No work, 1,830 calories; tailor, 2,700 calories; carpenter, 3,500; and lumberman, 5,500.

MUCH BLINDNESS IS PREVENTABLE

Proper Workshop Conditions of Importance.

St. Louis.—"Half of all blindness is preventable," declared Dr. Park Lewis, eminent ophthalmologist of Buffalo, N. Y., and vice president of the National Committee for the Prevention of Blindness, in an address before the chamber of commerce here. "This is so," Doctor Lewis said, "despite the important reductions in both the frequency and severity of some of the principal causes of blindness resulting from the organized and nation-wide campaign for the prevention of blindness which is now in its eleventh year. The total amount of blindness and half sight, however, is growing proportionately less."

Speaking on the economic necessity for conservation of vision, Doctor Lewis pointed out that the cost of educating a blind child is at least ten times that of educating a normal-sighted child. As further evidence of the heavy cost to industry resulting from accidents and diseases affecting the eyes, he declared that in New York state alone close to \$1,000,000 is paid as compensation for eye injuries in a year and that almost an equal amount is paid by the employers of Pennsylvania each year.

"In considering the economic phase of the subject," Doctor Lewis said, "we are not thinking of the frightful loss to the man in the moral suffering which he incurs, in the dependency which necessarily follows from the loss of his own self-efficiency, neither are we considering that long line of related losses which enter into the question.

"There is not a loss suffered by any individual member of a community," Doctor Lewis added, "that is not in some degree shared by every other member. I think, then, that it would be agreed that in industry today, it is a matter only of forethought and business acumen to so plan each factory and workshop that the greatest returns are produced with a minimum of loss, that the most serious loss that can be sustained is the irreparable injury of the most valuable implement in the shop, the workman, that the average workman is apt to be careless of his own interests and he needs to be guided in preserving them, that the loss when sustained is a triple one—first and most serious to the man himself who is thereby handicapped for the remainder of his life, and who, if he works, must thereafter work at reduced pay; second, to the employer who has to pay the price either through insurance or otherwise or he may lose the services of a valued and skilled workman, and third, to the commonwealth."

THOMAS HALL



An especially posed portrait of Representative Thomas Hall, Republican, of North Dakota. He is a member of the house committee on agriculture.

Sound Waves in Water Used to Fight Disease

Baltimore, Md.—Dr. R. W. Wood, professor of experimental physics at Johns Hopkins university, makes public the results so far attained in the experiments conducted on the estate of Alfred L. Loomis, a New York banker, at Tuxedo, N. Y., with treatment of diseases by high-frequency sound waves sent through water. Mr. Loomis assisted in the experiments. The possibility of applying the discovery to medicine is described as being found in the fact that circulation is greatly stimulated in any part of the body which is thrust into water in which the sound waves have been introduced.

Doctor Wood said that while the experiments had not gone far enough for him to claim that cures might be accomplished, it had been found that circulation could be tremendously stimulated and that a method for stimulating circulation without injury was valuable to medicine.

Indian Relics Sold to Museum at New York

Los Angeles.—Purchase by the Museum of American Indians, New York city, of the A. R. Sanger collection of relics of Indian civilization in southern California was announced by Prof. M. H. Harrington of New York. The collection, described by Professor Harrington as the most complete in existence, consists of 1,350 stone implements, shell ornaments, beads, skeletons and other archeological specimens unearthed on Catalina and other channel islands and assembled here.

SUICIDE EPIDEMIC SWEEPING GERMANY

Economic Depression Given as the Cause.

Berlin.—A grim and mysterious epidemic of suicides is sweeping Germany. Many of the leading dailies now carry a regular section tucked away in an obscure corner of the paper and bearing the caption: "Die Selbstmord-Epidemie"—the epidemic of self-destruction. In this the daily list of suicides is given, many of them receiving only a line. The more sensational cases get a short notice of ten to twenty lines. One has the impression that many cases are not reported at all, or, at least, not published. Epidemics grow through imitation, and this the authorities wish to avoid.

The causes of the abnormal rate of suicides in present-day Germany are, no doubt, the widespread economic depression, the increased tempo of modern life, the depletion of nerve force through the war and the tremendous financial and personal losses the war brought about, the shaken condition of the social structure, and a general fear of life which has overtaken thousands. All these factors are augmented, in the case of the German, by his tendency to brood, to ponder the riddles of existence, to regard life and its trials and problems from the angle of some particular philosophy of Weltanschauung.

Where Pessimism Lingers.

When the man's philosophy goes to pieces upon the rocks of experience, the man himself often goes to pieces likewise, and the unfortunate human creature is driven to the last positive act of which he is capable—the act of self-annihilation. It is also often in the nature of a "grand gesture"—at one blow he destroys the whole visible and palpable world—for himself.

Suicide has at times even a romantic tinge in Germany—sentimental remnants from the days of Goethe's "Sorrows of Werther," of philosophical pessimism from the works of Schopenhauer or Von Hartmann. In no other country are young lovers so prone to end their lives if parental permission to marry is not forthcoming. In no other country is the proportion of child suicides so great. These cases of juvenile self-destruction mania usually arise from fear of punishment at home or at school, fear of disgrace, or morbid conceptions of honor connected with failure to pass examinations at school.

But it is not only the poor, the distraught, the lovers or the inexperienced who lay violent hands upon themselves in the German republic. The list of prominent, well-to-do, apparently happy people who have recently ended their lives in Germany is appalling. To mention but a few cases: there is Paul Cassirer, the art dealer, husband of the famous German actress Tilla Doreux, who shot himself in the lawyer's office, whither he had gone with his wife and daughter to arrange a divorce settlement; "Blumen Rothe," a famous florist of Berlin, whose body was found, long after he had vanished, under pines in the forest of Grunewald.

Plunged into Ice Cavern.

There is also the mystery of the death of Jurjevskala, a beautiful and celebrated star of the National opera at Berlin, in private life Frau Bremer, who went to Zermatt, in Switzerland, some months ago and threw herself into the ice-bound ravine under the lofty "Devil's bridge," apparently without the slightest cause, her body coming to light a few weeks ago after the melting of the ice. There is the case of Carl Hau, once a well-known lawyer, who had been accused of murdering his mother-in-law and sentenced to life imprisonment twenty years ago. He was recently pardoned and began writing and publishing his prison memoirs in a big Berlin daily. The state attorney of Wurttemberg reopened proceedings against him. Hau fled the country to Italy and threw himself into the sea from a train.

Strange tragedies are of daily occurrence. Day after day the newspaper reader is confronted with such little notices as this: "Suicide of an Aged Married Couple." And then the sordid, inevitable details—the cause for the grim act, often described by one word—"nahrungsmangel," food worries.

Cards Amundsen Mailed 13 Years Ago, Delivered

Chicago.—As Capt. Roald Amundsen swept over the northern roof of the earth recently a sack of mail, from Finland reached Chicago, bearing postcards mailed on his polar ship, the Fram, thirteen years ago.

Stanley G. Swanberg, Wilmette, received one of the cards. It was sent to him by a friend, who has been dead eight years, and started on its journey in Colon harbor in the Canal zone, December 4, 1913. Swanberg explained that the card was one of a number Amundsen gave visitors to his ship. It bore the printed note: "Will be carried across the polar sea and afterward conveyed by post to the addressee."

The cards bore two postal stamps marked in polar latitude, but nothing further to indicate their history.

Movies Help

Paris.—Movies are keeping French women away from the saloons. The pictures and improved housing, thinks Professor Labbe of the Academy of Medicine, are doing more than anything else to decrease alcoholism in the country.

POULTRY

GROWING CHICKS NEED CLEAN PEN

Costs of poultry production can be lowered by raising big hatches just as the cost of pork production can be reduced by the raising of big litters. Heavy mortality among chicks can often be prevented by timely observation and care.

By the time they are a week old the chicks should be allowed, in the ordinary season, to run out doors. Confine them in small yards at first or until they learn where the heat is to be found and they will go in and out of the brooder house freely. In the early spring the yard should be enclosed in muslin-covered frames which later can be supplanted by poultry netting or lath. As the chick grows, the yard should be enlarged sufficiently to keep them on green grass. Once put on free range, there is likely to be difficulty in feeding the chicks unless they are kept apart from the hens. The same difficulty arises when chicks of different ages are being raised close together. To avoid interference by the older chicks or hens, the younger ones should be fed in small movable pens, says N. E. Chapman, poultry specialist at University farm at St. Paul. The sides of the pens may be made of lath placed so that the lower strip is high enough to permit the entrance of the smaller chicks, but low enough to keep out the larger ones.

Pullets will grow more rapidly if separated from the cockerels when about eight weeks old. Cockerels that are to be sold as broilers should have the run of a small green yard while being prepared for market.

Open Type of Equipment Useful for the Chicks

There are two good reasons why some open type of equipment is useful in raising young chickens. They are: Need for more room than is supplied by the regular equipment and need for a house that can be thoroughly ventilated in hot weather.

A house can be cheaply constructed that will be of material help in successfully growing out young chickens. For a small flock this can be made six feet square and a board roof extending from six inches to a foot over the inclosure. The framework of the house may be made of 2 by 2-inch pieces if they are well braced. Two-inch wire mesh is satisfactory for the walls. No floor is necessary, as the house can easily be moved.

On a small house the side walls do not need to be over two and one-half feet high, which will make it somewhat higher in the center. Low roosts should be provided so the chicks may be comfortable and be off of the ground.

After the warm weather comes the protection which the chickens need is from storms and rodents and other pests which bother mostly at night.

Transmit Tuberculosis From Poultry to Stock

Some thought should be given by poultry raisers, particularly in the dairy districts of northern Illinois, to the probability of finding tuberculosis in their poultry flock. It has been definitely proved, as described in the Orange Judd Illinois Farmer, that tuberculosis may be transmitted from poultry to other live stock or from other live stock to poultry.

If chickens show distinct white spots on the liver it is safe to be very suspicious that they have tuberculosis. In case of any question on matters of this kind it is possible to send specimens to the state universities and arrange to have technical examination made.

Mash Brings Forth Eggs

It's the mash that is going to influence the egg yield, yet if hens have their choice of grain or mash, they may slight the mash. By giving them a light feed of grain in the morning, their hunger will drive them to the mash hopper and hence to the nests. One hundred hens should consume 12 to 15 pounds of scratch grain daily, two-thirds of which should be given them at the night feeding. Let the fowls go to roost with a full crop.

Feed for Ducklings

Equal measures of rolled oats and bread crumbs, with a sprinkling of about 3 per cent sand, will make a good starting feed for incubator-hatched ducklings. This can be fed three times per day until the fourth day, when a mash composed of equal parts of rolled oats, bread crumbs, bran and corn meal will produce good results. A mash recommended after the first week consists of three parts bran, one part low-grade flour, and one part corn meal.

How to Handle Roup

Roup in chicks is successfully handled as follows: Remove all illing birds from the rest, to check the spread of the disease. If over-crowded in houses, relieve the condition, giving the light varieties like the Leghorns three and a half square feet of floor space per bird and the heavier varieties four square feet. Provide good ventilation without direct drafts. Wash the eyes and nostrils with 3 per cent boric acid solution, afterwards greasing the head.

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The Pyramids.

The "Pyramid Field" lies in the eastern desert near Cairo, Egypt. There are altogether about seventy pyramids, nineteen of which have been identified. The best known are the three pyramids of Giza (Giseh), that of Unas, the brick pyramid of Dakhshur, and that of Sferu at Medium. They are said to be the tomb of royal and august personages.

Tidal Wave's Movements.

In general it may be said that the rate at which a tide wave proceeds depends on the depth, the formula being: Rate of the advance of the tide equals the square root of the acceleration of gravity, multiplied by the depth of the water. Therefore, in a deep channel the tide progresses at a more rapid rate than in a shallow channel.

Old Villa Found.

Remains of an ancient Roman villa, uncovered at a depth of 15 feet in London, England, showed brick walls intact, covered with two layers of plaster finished with a further layer of white cement of paperlike thickness on which had been painted some very artistic designs. It is something more than 1,500 years old.

Immortality Condemned.

"The immortal who writes an immortal but immortal book may be tracked into eternity by a procession of lost souls from every generation, everyone to be a witness against him at the judgment, to show to him and to the universe the immeasurableness of his iniquity."—G. B. Cheever.

Painter Used No Brushes.

Adolphe Monticelli, a French painter of Italian descent, used no brushes in painting his pictures. He applied the paint direct to the canvas with a palette knife on which he squeezed his colors from the tubes.

Through a Glass, Darkly.

Age brings discretion. A man is like a window, not so easily seen through after the frost comes upon him.—Boston Transcript.

Signs of Progress.

Time files, and barbers are chirotonors, undertakers and morticians, wiremen are electrologists and trusts are mergers.—Detroit News.

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Mistaken Identity.

A Hot Springs woman was charged with assaulting a collector when he called at her house. When asked by the magistrate for an explanation, she replied: "Well, he shouldn't have called after it was dark. I thought it was my husband."—Arkansas Thomas Cat.

Antedated "Jazz."

"Blue" songs had a vogue in the southern central states many years before jazz was known. The nature of the song is all that the name implies and is in the same category as the "spiritual" and the "jubilee" heard so frequently through the South.

First Italian Opera.

The first Italian opera, as distinguished from a musical drama, was "Daphne," which was produced by the Society of the Alterati in a private house in Florence in 1596. The music was by Caccini and Peri.

Butterflies Absorb Perfume.

Butterflies absorb perfume from flowers, according to an English naturalist, who claims to be able to identify certain species by their odors.

Mirrors for Macaroni.

By using mirrors to supplement the sun in drying macaroni, manufacturers of the product have found the color to be more satisfactorily preserved, since the deep yellow tint is not bleached so easily, and the flavor also is said to be improved. The process is quicker than sun bleaching.

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