

OCEANIC PHOSPHORESCENCE.

The Organisms Which Produce This Interesting Phenomenon—Light at Great Depths.

A correspondent of the London Telegraph has called attention to the large amount of phosphorescence which shows itself there and at Yarmouth, Lowestoft and other places on the east coast of Norfolk. This phenomenon is a deeply interesting feature of marine life, both of the open sea fauna and the floating or drifting superficial organisms, or plankton, as they are collectively called. It has long been known that nearly all the more lowly orders—the Infusoria, rhizopods, polypes, ctenophores, medusae, tunicates, mollusks, crustaceans and many insects—possessed some power of emitting light. A minute rhizopod, the Noctiluca miliaris, is believed to be the chief cause of phosphorescence of our seas. Dr. Philip has stated that he found it in such prodigious numbers in the damp sand at Ostend that on raising a handful of it it appeared like so much molten lava.

It is now ascertained, however, that many sea water bacteria are luminous. The so-called phosphorescence of decaying fish and meat is due to bacilli. Mr. Barnard and Dr. A. Macfadyen have produced cultures of these bacteria, showing their luminous properties, and M. Tarchanoff a fortnight ago sent to the Academy of Sciences at Paris an account of similar experiments with light emitting bacteria of the Baltic. It would seem that when oxygen has access to readily decomposing matter light is given off. The chemical change takes place in such a way as to allow just that swing or vibration of atoms as to generate light.

This, too, is cold light, luminosity without heat, like that of the firefly or the glow worm. M. Tarchanoff has produced luminous life with his bacilli. It is also the cheapest light known. In those brilliant tropical seas, where you can read by it, which seem to dance with the glitter of myriads of diamonds, how slight the mechanical energy to produce the radiant effect! Prof. Dolbear says one horsepower spent without waste would maintain a phosphorescent light equal to 100,000 candles. Here is a chance for the inventor!

This oceanic phosphorescence helps to solve another mystery of the deep-sea. It used to be thought there could be no life below 200 or 300 fathoms; first, because there was no light, and second, because there could be no oxygen. As for deductive zoology! The pages of our exploring ships have proved that there is abundant and varied life, and that polar currents carry plenty of oxygen to the deepest depths. From a depth of 1,375 fathoms the Challenger's dredge brought up 200 specimens belonging to 59 genera and 78 species. Moreover, most of the animals that have eyes above have eyes below, unlike the sightless dwellers in sunless caves, and many are beautifully colored—white, purple, yellow, red, pink, violet and green. Nature would not waste color where it was not wanted. These are not "bright" things that gleam unrecked of and "rain" miles below the surface "the great majority of the animals have eyes," says Alexander Agassiz, and many of them are things of beauty. It would seem that in these abysses the light is phosphorescent, and, as Prof. Hickson observes, the deep sea fauna is remarkable for the great number of animals which possess this quality. It occurs probably more or less in all the more important groups. A giant Pyrosoma was brought up by the Challenger's deep-sea trawl. Prof. Moseley says: "I wrote my name with my finger on its surface as it lay in a tub at night, and the name came out in a few seconds in letters of fire."

A BRUSHWOOD COLONY.

Populous Squatter Village Springs Up in Lantana Jungle Near Honolulu.

A colony of native squatters has been unearthed on Round Top by the work of the surveying party who are laying out the route for S. T. Alexander's new route to Tanialua. There seems to be an indefinite number of "native" families who have located their tumble-down shacks, built of logs of lumber and tin, among the lantana on Round Top, says the Honolulu Star.

They fetch their water from the stream that runs below and eke out a precarious existence by raising potatoes in the soil. Many of these squatters are on the government land which was opened up by Mr. Alexander's new road, and on the opening of the road will present a problem similar to that of the Kalaokua settlement. Lantana runs here and there through the thicket of lantana, which is impenetrable to sight and casual enterprise. Some of these lead to the water, some to neighboring shacks.

Without exception the families are miserably poor, and their hovels, even if picturesque, can hardly be termed sanitary. Meantime a generation of "brushwood boys" and girls are being raised in the lantana jungle. The survey is being pushed as rapidly as possible, but the surveyors are meeting with considerable difficulty in laying their air line on account of the dense growth of lantana. The brush is high, forming a thick tangle that has to be cleared to the ground before a chain can be run or a transit leveled. In order to leave room for changes and space for keeping the grade within limits and to make the necessary observations of the contour of the country a strip of 40 feet, or 20 feet on each side of the line, has to be prepared.

THE INCENDIARY NAIL.

A Little Nail That Is a Source of Much Trouble to Insurance Men.

"Speaking of insurance matters," said a listener, "I suppose the plain, old-fashioned nail has caused more fires in the big establishments where machinery is used than any other little thing in existence. The cigarette stub has played its part. Ditto the cigar stump. Occasionally sparks have fallen from the ditcher's pipe into a bed of material easily ignited, and a fire has been the result. Sparks have oozed out from smokestacks and engines of various kinds with the same result. And there is the match, the deadly and dreaded match, the awful enemy of the men who are engaged in the business of betting. If I may say it, against fires. The match, of course, has caused its quota of fires in the world's history. Sometimes, when the sulphuric end is particularly dry, it is the easiest thing in the world to start a blaze at the end of a match. The slightest rub may do it. But if the match is not in good condition, if it happens to be stubborn and unfit, the situation is different. But the nail is always fit. The only thing needed is for it to come in contact with some other hard material with sufficient force to cause a spark and heat generation. Nails have really produced a heavy per cent of the cotton fires of the country. During recent years, on account of steps taken by the owners and conductors of the larger cotton and by-product plants at the instance of insurance men, the nail has not been such a prolific producer of fires. A way has been found, for instance, in cotton gins, cotton mills, and in plants where cotton seed are put through manufacturing processes, of extracting nails and other weights and flinty substances that may find lodgment in these inflammable products. Gravity is the natural force used, says the New Orleans Times-Democrat. Nails and rocks, and materials of this kind are heavier than cotton and its byproducts, and they have a tendency to force their way to the bottom of the heap. By allowing these products to pass over a rolling belt arrangement these heavier materials filter toward the bottom, and are finally extracted; so that when the cotton or the cotton seed pass through the grind in the various manufacturing processes there is but little danger from nails or other things.

It is interesting to note that the nail still plays its part in isolated sections, and the insurance man still looks upon the nail as one of his enemies, and the nail plays its part in the hazard competitions.

ABOUT LETTER WRITING.

It Is An Art Which Has Not Moved Forward with the Time.

Our postal facilities are greater than ever, and there is no question that the pens which are manufactured to-day are as much superior to the quills our forefathers used than that modern writing fluids are superior to the juice of pokeberries. Yet there is a general agreement that the art of letter writing has gone backwards during recent years. One reason for this is that most persons are writing books. Another reason noted by a modern student is the fact that we do not have to write letters, as our fathers did, to convey political or public information, says the Syracuse Post-Standard.

Yet everyone knows that there are more things to write about now than there ever have been before, and even the rush and turmoil of modern life, which we are always telling ourselves, excuse us from trying to do the good and pleasant things which our fathers did, cannot be the whole reason for the neglect of letter writing. The young man who contemplates housekeeping is probably as busy a mortal as can be found, yet goodness knows what would become of the revenues of the post office department were it not for the industry of this young man in writing letters.

The trouble is, so at least one student of the question believes, that people will not take the trouble. "The ordinary letter," he says, "is merely a jotting down without art or order, of whatever comes into the mind during the brief interval given to composition."

When persons complain that they cannot write letters they are generally, with entire unconsciousness, explaining that they shrink away from the labor of doing it. Yet effective letter writing, this critic goes on to say, always counts, and this is especially true to-day, when so few persons will concern themselves to do it.

Tolstoi on Modern Americans.

"But the American army is much larger than it was. It seems to me it grew very quickly. Only a short time ago I read it was less than 50,000, now it is 100,000 or more." I told him 100,000 was the maximum; that the minimum was much less. "But you build great battleships—the best in any nation." I agreed to this. "It is a pity to think you need any battleships. After the Pleiad of writers America produced in the civil war you can now only show as your most brilliant brain, Carnegie, the millionaire. (He pronounced the word Carnej.) You had Thoreau, Balzac, Emerson, Longfellow, Whittier and Walt Whitman. It was your Homer age. Then rose the Achilles among statesmen, Abraham Lincoln. All these were a giant constellation. Your war fever is over, but gold has you now. Your great men are your millionaires."—Frank Leslie's Popular Monthly.

On the Day of Arrival.
Smith—I don't see anything very rocky about this coast.
Brown—Wait until you sample the beds.—Judge.

PITH AND POINT.

"Only children and fools tell the truth," said the wise man—therefore the wise man was either a fool or a liar.—Chicago Daily News.

Drib—"They say that lawyer is well to do." Drab—"He was well enough to do me, all right."—Town Topics.

"That was a good picture in the paper yesterday of your son, the football player, Mr. Husking." "Yeas. I knew who 'twas just as soon as I seen 'th' name under it."—Cleveland Plain Dealer.

Mistress—"Did you tell the lady I was out?" Servant Girl—"Yes, ma'am." Mistress—"Did she seem to have any doubt about it?" Servant Girl—"No, ma'am; she said she knew you wasn't."—Glasgow Times.

"After all, it isn't the biggest troubles that bother a fellow so much. It's the little things that annoy you most." "That's right. Why, they say a hornet's sting is only one-third of an inch long."—Philadelphia Press.

If a lawyer looks far enough, and waits long enough, he can find a supreme court decision on any side of any case. Just as a doctor can be found to swear to the opposite of what another doctor swears to.—Athens Globe.

Stiles—"You may like him, but I can't help regarding Podge as a cur. He takes no pains to hide the contempt he has for his wife." Harris—"That's right. I should think less of him if he did not have contempt for the woman who could consent to be his wife."—Boston Transcript.

She—"Don't jump so, dear; that's only the cuckoo clock in the hall." He—"Oh, is that all? I thought it was your father coming downstairs. You'll tell me when he comes, won't you, dear?" She—"O, it will not be necessary, love, to tell you; you'll know it when papa comes."—Philadelphia Sun.

THEIR MUSICAL EVENING.

How a Trained Artist Was Entertained at an American Country House.

The man who has no music in his soul now and then gets his innings—witness this true tale of a man who did have music in his soul. He had also a fine voice, carefully trained. He had, indeed, spent seven years and more of his patrimony with the best masters abroad. He cares nothing for Society, with the capital letter for Society, with the chances to belong to an old and rich family and, in moreover, the soul of good nature, it is impossible wholly to escape visiting at some of the great country houses, says the Washington Star.

One of these visits chanced to be at the home of a young woman widely known for her wealth and her charities. She lives in a palace in one of New York's sweetest suburbs, so the musical man's friends felt that he was playing in great luck to get an invitation. He himself may have had a dim and shadowy notion of the same sort. If he did, it died young. It was a week-end visit. He expected, of course, that some part of Sunday would be given to music, and so took along various sacred and solemn things, fitted to the time and place.

He guessed right—there was music. The young lady herself made it, singing Moody and Sankey's hymns, taking the leading part herself, while the visitor was assigned a second. She said graciously that he sang well—she had not been better accompanied but a few times in her life. This, she let him know, was high praise; for they were a musical family and always played and sang with their guests. There was one exception to the family proficiency—her brother Jack, just home from college. He could neither sing nor play—but then he loved music well enough to make up for the lack of it.

ANIMALS CHEW TOBACCO.

Fair of Elks in Druid Hill Park, Baltimore, That Are Fond of the Weed.

Two of the most confirmed tobacco users in Baltimore are George and Martha, the pair of elks at the Druid Hill Park zoo. George and Martha don't smoke, they "chew," and they not only chew tobacco, they eat it. George and Martha are regular old tobacco soaks, says the Baltimore News.

The fact that George and Martha had a taste for the weed was not known by the keepers of the zoo until a short time ago, and it is probable that Mr. and Mrs. Elk suffered all the pangs known to the lover of nicotine when he can't get any "chewing and smoking."

One day a western woman who was traveling and had stopped over in the city paid a visit to the zoo. Whether she had secured the knowledge of the likes of elks by studious research in natural history, or whether like most western women, she had been reared to think that everything with a pair of jaws—in some instances excepting their own sex—chewed tobacco, is not known; anyhow, she knew that elks are fond of tobacco. She was equipped not only with this information, but with a plug of good "chewin'" as well, and she proceeded to present George and Martha with a treat that almost gave them lockjaw. They hadn't had a chew for so long they could hardly take time to chew at all; they just swallowed it whole and looked longingly for more. The keepers were surprised to learn that George and Martha are addicted to the habit, and stood by envious the way George, especially, got on the outside of the finest of plugs.

The story soon leaked out among the admirers of the elks, and now none of the friends of George and Martha would dare call on them without taking along a few plugs of tobacco. Of course they will partake of other things, such as candies and peanuts, but they much prefer the weed. They are not particular how the tobacco comes to them—long green, dried, twisted, crumbled, caked—any old way suits them, just so it is tobacco.

THE COOK INLET REGION.

Its Natural History Interestingly Treated in a Recent Government Bulletin.

The "Natural History of the Cook Inlet Region," Alaska, forms the subject of one of the most recent bulletins of the department of agriculture, says the Washington Star.

Among other things it is stated that the region about Cook Inlet was at the beginning of the field season of 1900 the only general district of consequence on the Pacific coast of Alaska that had not been recently visited by naturalists.

Cook Inlet, it is stated, is the first important indentation of the Alaskan coast east of the Alaskan peninsula. It is a long narrow inlet, bifurcated at its upper end into two large arms—Knik arm and Turnagain arm. The first of these, Knik arm, is about 15 miles long and at its upper end receives the waters of a large stream, the Matanuska. The other, Turnagain arm, is 30 miles or more in length, and extends inland until within about five miles of the waters of Prince William sound. West of Knik arm is the delta of the Sushitna river, the largest stream emptying into the inlet. South of Turnagain arm, and connected with the mainland only by the five miles of glacier between the head of the arm and Prince William sound, is the Kenai peninsula. Numerous relatively small streams enter both sides of Turnagain arm and both sides of the main inlet as well, so that in addition to the great volume received from the Sushitna there is a large secondary supply of fresh water. Except in Turnagain arm, the country bordering Cook Inlet is low and comparatively level, though high mountains from ten to sixty miles inland can be seen on all sides. The small trading station and native village of Trayek is situated on a low sandpit on a plain about 20 miles west of the mouth of the Sushitna. Hope City is situated at the mouth of Resurrection creek, on each side of which rugged mountains rise to an altitude of 5,000 feet or more.

Moose, bear and mountain sheep are the principal big game, although they have already been hunted to a considerable extent, it is probable that they are more abundant than in any equally accessible place in North America. Fur-bearing animals are well represented, but, as elsewhere in the north, have been much reduced in numbers. The smaller, less conspicuous mammals are such as are generally found throughout northern Alaska.

Birds are not found in great numbers. Land birds, with the exception of grouse, which are fairly common, are not numerous in species or individuals. Water birds, particularly littoral or semi-pelagic forms, are noticeably uncommon, probably on account of the brackish water of the inlet and the comparative absence of marine invertebrates. Ducks and geese, however, and birds which feed in fresh water are locally quite abundant.

Spruce and hemlock timber ceases between 2,000 and 3,000 feet elevation, and the higher slopes are clothed only with matted masses of low shrubs or wide expanses of tall grass. In the gulches thickets of alders hold control and a few stunted individuals often straggle well up toward the snow line. The characteristic mammals on the mountains are the Dall mountain sheep (Ovis dalli), the hoary marmot (Arctomys caligatus), and the Alaska mountain vole (Microtus miurus).

VERY RESOURCEFUL.

Blue-Eyed Girl's Scheme to Become Popular with the Men Works Beautifully in Her Case.

"I'll never be even civil to a man again," muttered the blue-eyed girl, relates the Chicago Daily News.

The blue-eyed girl shrugged her shoulders incredulously. "Have your unsophisticated affections been trifled with?"

"It is worse than that. A man I don't even like thinks I am in love with him."

"Did you give him cause?" "Indeed I did not. Only a conceited prig could have mistaken my manner. You know, I have just returned from Cousin Nan's summer cottage. There was a bachelor next door. I don't know how long he has been a bachelor, but long enough to be utterly selfish and uninteresting. He ran in every day and I told Nan's husband that it was better to be lonely than to be bored. Then in some unexplainable way I got it into my head that he had been in love with Cousin Nan and was still true to her memory."

"You—a Chicago girl and thinking that? You are queer," commented the blue-eyed girl.

"I know it, but it made him interesting. His stupid expression seemed soulful, and when he shook hands with Cousin Nan I fancied that I could see a wistful expression, and when he kissed her children I felt sure that only a strong will was keeping back his tears. I thought him so noble, so uncomplaining, and I tried to enter into all his moods. It wasn't very thrilling, but as there were no other men around I thought it wouldn't hurt me to be good to him and cheer him up as much as I could. We rode and walked together in sympathetic silence, and I felt sure that he understood, for he told Tom that I was such a restful girl. One evening we stood on the porch and I thought of the years of loneliness before him and my heart ached. Picking up his hand, I held it for a second against my cheek, said 'Good night' very abruptly and went into the house."

"No wonder he thought that you were in love," interrupted the blue-eyed girl.

"Nonsense! If a man picked up a girl's hand she wouldn't think that he was in love—she would know that he was simply affected by the moon or something he had eaten for dinner."

"Of course he proposed?" "Hardly. This story isn't in any story book. He was frightened to death and never called again. I found out afterward that he had never been in love with anyone except himself—conceited prig!"

The blue-eyed girl looked thoughtful. "If you want to be awfully popular I'll tell you how if you will promise never to breathe it."

"I'll promise anything."

"Well, I will tell you my own experience. Last summer there was only one eligible man at the summer resort and I knew that my chances for a good time were slim, for the other girls were younger and very attractive. Then some one who didn't know told that man that the man I was engaged to differed to men. It was better to have him think that than to know the real unromantic truth, so I dropped several remarks which would confirm his opinion. He hadn't even looked at me before, but after that he began studying my face and he thought it so wonderful the way I hid my true feelings, for though my heart was broken only a very close observer would have guessed it. To make a long story short, he decided that I was very safe for a summer girl and he showered his attentions on me, and I accepted them with an I-understand-you air. It worked so beautifully that I know I have six men trying to make me forget some deep, unknown sorrow, for they all feel sure that I can't fall in love."

"But do you think any of them will propose?" "I hope not. I don't want to have a good thing spoiled."

Then the blue-eyed girl began looking over her engagement book for the week.

CRITICAL YEAR OF MARRIED LIFE.

"Some folks have a way of declaring that the first year of married life is the most trying. But where one gets a close knowledge of several families the conviction is brought home that the trying period lies beyond the first year. I should fix it rather at the third year, when the pretty trousseau is showing wear and needs replenishing; when the wedding presents have lost their luster, and this thing has worn out and that thing has to be replaced; when a little family is growing up and doctor's bills are introduced into the family reckoning. That is the trying period when interests are apt to become very close. Likewise calculations. Then it is that the saving of the comparatively care-free and less expensive first year of married life comes in handy, or is sadly missed if the income was then lived up to in unnecessary buying and foolish entertaining. A great deal of happiness in this world is wrecked by debt, and generally a little more care and common sense had been exercised.—Edward W. Bok, in Ladies' Home Journal.

FOAMING SAUCE.

To make this take four large spoonfuls of sugar, two large spoonfuls of butter, one large spoonful flour; stir to a cream in an earthen dish; then add the white of an egg beaten to a stiff froth; pour on to this a teacupful of boiling water, set it in dish of hot water on the stove for a few minutes, and stir very fast. Flavor with lemon.—Ladies' World, New York.

HOUSEHOLD BREVITIES.

Odd Bits of Information Concerning Some New Domestic Features.

Few housekeepers remember, as they should, that when it is necessary to dilute strong tea it should be done with water at the boiling point. The poor flavor of tea, made strong at first and then reduced, such as is too often served at receptions and "at homes," is usually caused by the addition of hot, not boiling, water to the first infusion. A lesson in this matter may be had from the Russians, who serve the most delicious tea in the world, and who prepare it first very strong, making it almost an essence of tea. This is diluted to the strength wished with water kept boiling in the samovar. This water is not allowed to boil and reboil, but is renewed as needed. Freshly boiled water is insisted upon by all connoisseurs in tea-making, says the New York Post.

Pretty photographs frames seen in the shops this autumn hold three of the tiny oval medallion pictures. The frames are in leather and gilt.

The tone of the Japanese sets of chimes varies so widely from a decidedly tiny note to a deep, rich, cathedral tone, that it is quite worth while to take pains in choosing one. It will be found that it is not so much a matter of expense as of care to get bells with rich notes.

Writing tables covered with velvet instead of felt have been seen recently. The velvet is in a dark rich shade, and is mounted with the same bit of gilt band that is used with the felt. The effect is good, but in use the velvet may not be satisfactory.

At this time of month fruit it is well to have a bottle of Javelle water in the butler's pantry. It is excellent for most stains on white goods, and may be made at home or can be bought at the druggist's. Before using it or anything else on fruit stains on napery, try boiling water. For peach stains, the most obstinate of all, long soaking in a weak solution of chloride of lime is recommended. Some house-mothers with a family of growing children provide a supply of paper napkins for use through the peach season.

A new way to serve eggs and olives as a luncheon relish is worth trying. The eggs are first boiled hard and the shells taken off. From the big end slice off a bit to let the egg stand upright, and in the small end cut a little hole deep enough to hold a baby olive. When the olives are inserted stand the eggs on a bed of lettuce leaves and pour over and around them a good French dressing made with lemon juice instead of vinegar.

FASHION'S LATEST ORDERS.

Materials for Up to Date Garments—Some Pretty Fancies of the Season.

Long black and white ostrich plumes are very much worn this season and they are put on the hat to droop out a little at one side, touching the shoulder in some instances, says the Chicago Daily News.

Cashmeres are sure to be much worn in reds, mauves, pink and blue, so is an excellent stuff of the nature of eoline as the season progresses.

Striped silks in the rose pinks and black and white effects will be very stylish this fall. Straps of some bright colored velvet and black (or a lace applique will be the usual trimming.

White net beautifully embroidered in colored silk floss, cut steel beads and steel accents is another novelty to be used for evening wear. White satin brocaded with handsome velvet flower bouquets is still another fine evening fabric.

Plain black silk skirts sometimes have the flounce of fancy black silk. One which is pretty has the flounce of a corded silk with a narrow lace stripe. Other skirts have several ruffles and the familiar little ruching at the edge of each.

A white flannel waist, with which a black taffeta stock is exhibited, has a stylish cut. It has a rather deep yoke in the front, cut up in a point in the center and rounding down in two broad, shallow scallops on either side. There is the stitched band in the center, buttoned with white pearl buttons, and on either side two narrow stitched bow plaits.

Thin ruches of tulle are the distinctive trimming for the latest models of evening and wool canvas gowns. The ruches are used very freely on both skirts and bodices. The latest tucking is arranged in festoons in groups of five or seven tucks. It is not an easy task to accomplish, but is managed very effectively, though at much expenditure of hand sewing.

For opera cloaks there is a wonderful range of beautiful stuffs of the nature of Egyptian and zenna cloths in silk and wool, the surface decidedly silk. These are in white and light mixed colorings, and are like the fabric brought out some years ago and used for petticoats and wrappers. Some display floral effects in self shades like quilting somewhat, the upper part of the stuff standing up like bubbles. Some are floral, some striped like gauze in blue, violet and pink.

Prunes cooked in this way are delicious. It takes a little time to prepare them, but is worth the trouble. Take two pounds of ripe Muscatel grapes, wash, strip from the bunches into a saucepan, add a very little water (distilled) and stew gently until tender, crushing the grapes to extract all the flavor and juice, then strain. Wash a pound of prunes, cover with the grape juice and stew until the prunes absorb most of the juice. Or the prunes and grapes can be stewed together, the grapes crushed and the seeds skimmed off as they rise to the top.—Good House-keeping.