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Correspondence.

For the Christian Messenger.

Something about Corals.

BY CARL STEINHAMMER.

ing paragraphs, to give them a description of one, of the body. together with some account of other animals of the same class, or of the corals in general.

are very abundant on our coast, and may be col- fuse left, is thrown out at the mouth opening. lected in great numbers on the beaches at low and left them, like rounded masses of flesh at- the mouth. tached to the rocks or to pebbles, and are not very attractive objects.

take up one attacked to a pebble, which is much it; the second, acting as a stomach. It has no better, jut it into a bowl of sea water, and watch brains, no heart, no circulatory apparatus of it. It begins very slowly to expand, very slowof very delicate feelers, that creep out softly, ed spots, which are homologous to the eyes of the until, from a dome shaped, irregular fleshy mass, Aurelia. What a strange animal it is ! it has become a cylindrical body, flat above, and crowned with a most graceful wreath of innu- built up by insects, very much in the same way merable soft, delicate tentacles, highly tinted in as the bee builds its comb. This is very errone-Within the wreath of feelers is an oblong of which these coral structures are a part, are

THE CHRISTIAN MESSENGER.

purpose very well. Draw a circle of, say an and winding. Meandrina is one of the numerous inch in diameter, which will represent the body polyps, which multiply by fissuration or divisions. wall of a small actinia, as seen in a transverse In the higher order of polyps, the Halcyonoids, section of the animal. Now divide the space the base of the animal secrets a horny or calbetween the two circles by lines radiating like careous substance, while the upper part secretes the spokes of a wheel, leaving the central space a spongy calcareous mass. The former serves free hom lines. Make some of these lines reach the community as an axis, while the latter forms only part way from the outer circle to the inner. a thick coating round it, pierced by the innu-The smaller circle will represent the inner sack, merable polyp-cells. The "sea fans" and "sea Have you an Aquarium? Have you in it a which is a sort of stomach, while the radiating feathers" are examples of this order. sea-anemone ? If you have one, and are familiar lines represent the partitions. Some of these parwith its appearance and habits, you will be all titions reach from the body wall to the stomach, near Charleston, South Carolina. It consists of

to tell you in this little article. But the most of it. There is a tentacle for every chamber be- which is a colony of polyps that are able to my readers have not aquaria, and have never tween these partitions. These tentacles are move about together by a retractile locomotive seen a sea-anemone, and I propose in the follow- hollow and communicate treely with the cavity organ, attached to the disk like the stem to a

The food entrapped by the tentacles is taken by the whole colony. In order to move in a into the mouth and in the sack-like stomach un- certain direction, all the polyps must be of one The sea-anemone, as well as the stony coral dergoes a sort of digestion. When mixed with mind, for they have only this one leg, if we may is a marine animal. These last are most abun- sea water, it is passed through an opening in the call it such, among them all, and they must all dant in the Southern seas, but a few rather in- bottom of the stomach into the general cavity of agree as to the direction in which it is to be used, significant species occur off the coast of Nova the body, where it circulates freely about, pass- else they make no progress. What a lesson Scotia, and may be obtained Ly dredging. Sea- ing into all the chambers, and all the tentacles, they might have taught the rebellious Southern-Anemone or Actinias, as naturalists call them, carrying nourishment to the animal. Any re-On the edges of the partition walls are de-They look when the water has gone away veloped bunches of eggs, which escape through fits of Union !

Such is the Artinia or sea-anemone, the lowest member of the Animal Kingdom. It is, you see, Remove one very carefully from the rock, or a mere sack with another sack suspended within veins and arteries, and no eyes, though some ly it begins to throw out from the top a number actinias have at the bases of the tentacles color-

The common idea is, that corals are structures some species, like the petals of a gorgeous flower, ous. No insects live in the sea, and the animals

opening, which leads into the digestive cavity, not insects, but belong to the class of Polyis, forest, have at least, the merit of being zoologi-

. There is a very strange coral (Renilla) found the better prepared to understand what I want while some are so narrow that they do not reach a flat, bollow, membraneous; heart-shaped disk, leaf. This one locomotive organ has to be used

ers, had they but given heed to it ! Some fabulist ought to go down there, like as they did in Greece in olden time, and teach them the bene-

Other polyps colonize structures of various forms, some being arrow or pen-shaped. They are able to move about together, probably by the expansion and contraction of their stalk-like appendages, though some say that they dart about together in the water by the action of fin like organs on which they are clustered, but this is doubtful.

We get a very inadequate idea of the coral forest, from the tragments of dried cora's we see, for these are but dried decayed twigs, mere skeletons. The polyps are more or less brilliantly colored when alive, and the living coral is a most beautiful object.

The following lines discriptive of a coral-

"Train up a child in the way he should go and when he is old he will not depart from it." It is also a fact that since the youth have been brought under evangelizing influences, many, if not most, of the useful characters in the churches can trace their conversion to childhood. Furthermore it is worthy of notice that conversions in Sabbath Schools are beginning to be matters of 'requent occurrence. The report from Falmouth school says : "One of our little boys was bapuzed in January." How often in the history of the Sabbath Schod, has it been shewn that "a little child shall lead them." In the North Bap tist School, Halifax, the report says :--- " Daring the year, three pupils from the bible class, and two from the school have united with the church by baptism. May the Lord grant that the seed sown may bear much good fruit, and His name shall have all the glory." In the first Cornwallis Church, a considerable number of pupils have been added to the people of God. In the fifth Cornwallis Church, the same hallowed scenes have been witnessed in connection with the pupils of the Sabbath School. In Pereaux, seventeen pupils and three teachers have been added to the church, and more are pressing into the kingdom of God. In this place a blessed revival commenced among the small children of the Sabbath School. From these the work spread to the parents, and the adult population generally. Some of these little disciples, after being a few weeks in the enjoyment of religion, seem to exhibit all the firmness and ripeness of the aged christian. One dear little boy invariably takes up his cross in the house of the Lord. Though scarcely tall enough to speak over the back part of the pew, he rises and tells the people how much he loves the Saviour. The same may be said of several others. Amid such

scenes how appropriate the declaration, "Out of the mouth of babes and sucklings thou hast perfected praise."

These facts, like finger boards, point us in the way to the weak places in the ramparts of

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to the mouth of the higher animals, for the sea- and the same mode of execution, only that they anemone is a radiated animal, like the medusa deposit in the walls of the body, limestone paror jelly fish which I spoke a out in a former ticles, so that they become hard and solid like article, and, like it, built upon an entirely dif- rock, while only the upper part of the body, the ferent plan from either Mollusks (shellfish), Articulates, (worms, crustacea and insects) or Ver- coral is a sort of skeleton which grows within tebrates (fish; reptiles, birds and mammais) .--Around the mouth is a space without tentacles. it is in no way formed like the cell of the bee, Such is the general out side appearance of a which is made by the bee itself, and is no part sea-anemone. It is, when tully expanded, a of its body. Even the partitions have thin beautiful object. See how slowly it contracts plates of solid matter deposited within them .and lengthens the body, changing its shape con- If you examine a piece of common coral you will stantly, now stretching up into a long cylinder, find numerous cells opening at the surface ; in and now shrinking down close to its seat on the these you may see the radiating partitions very pebble, while all the time the tentacles are wav- distinctly. ing with a graceful motion. Touch it with your fuger and it contracts, doubling all the wreath mass it was before.

of the little crustaceans so common on the sea- other, and higher division, Halcyonaria, comprise shore under sea weeds and stones, (Gammarus such polyps as have only eight tentacles, and minutus) and which are commonly called "sand these ornamented with fringes. These polyps fleas;" it goes swimming about the bowl, dart- have for the most part skeletons, which we know ing from side to side with great activity, but under the name of "seafans" and "sea feathers," let it come in contact with the tentacles of the (Rhipidogorgia Ptersgorgia &c). Anemone and it falls paralysed. The tentacles are armed with a multitude of extremely minute but by division, in which the animal separates up spirally within. These cells are so extremely which case the young animal buds out from the minute that they are visible only under a micro- side of the parent, just as a bud grows on the scope of the highest power. They are called branch of a tree. This is the way in which the lasso-cells. When the little crustacean came in common hard corals grow. A young polyp contact with the tentacles of the sea-anemone, springs from an egg; this one gives off buds, it was pierced by the innumerable threads from which themselves as they grow, bud again and the lasso-cells and killed. When a sea-anemone again ; but they do not separate from one anis roughly handled or injured, it throws out other, all the individuals composing a communimade up entirely of lasso-cells. I have seen the one to the other, in so much that in very them. These weapons of defense are called the whole community. Acontia. Jelly-fish are furnished with lasso- In each individual as it grows, limestone par-

ly simple. If you were to cut one across, you Families of Polyps, the hard parts take dif- the Sabbath School. This result assumes a twowould find that the body was composed of a ferent forms. fold aspent according as we contemplate the THE PERSONNEL ST leather-like sack, with another smaller sack susbe working, and the school will be invested with In the common Madreposes of the West Indies, conversion of the soul, or the edification of the a charm, that men and women and children canpended within it, while the whole space between which are so often seen as parlor ornaments, young convert in the principles of the Gospel .--not resist. the two sacks was divided into chambers by thin they are branching like the antlers of a stag .- In the Sabbath School, intellectual training Yet, certain arrangements may be made in walls of membrane extending from the upper to In the Fungias of the East Indies, that do not should be wholly subordinate to the salvation of perfect harmony with the divine operations .-the lower part of the cavity,-and radiating like form compound communities, they are flat and the soul. Least of all, should mere amusement But it is evident that those arrangements must the spokes of a wheel, from the central sack to disk-like, and strongly resembling mushrooms there, take the place of spiritual instruction .-be in perfect accordance with the end to be sethe outer wall of the body. I wish I could make turned inside out, whence the name. In the We would fortify this position by facts: We cured-salvation; and with the means to be this plainer by a wood-cut; but I can tell you Brain-coral or Meandrina, they form large dome- should consider that the young mind is a more employed-the Word and the Spirit of God,tow to make a drawing that will answer the shaped masses, and the polyp-cells are elongated promising field of labor than the adult mind .--Keeping these principles in view, we may en-

and which we may call a mouth, bearing in of which our sea-anemone is also a member.- cally true, and as they give, I think, a fair idea mind, however, that it does not correspond at all They are animals of essentially the same plan of its appearance, I offer them for your perusal : tentacles, and the stomach remain soft. The the animal, just as our tones grow within us, and

There are two great divisions of Polyps .-One, Zoantharia, in which the polyps have of feelers into the upper part of the body, con- tentacles, like Actinia, simple, unfringed, and in cealing them entirely, becoming the shapeless number six, or some multiple of six. These are either like the sea-ancmone, without solid parts,

When it has expanded, put into the bowl one or building a solid limestone skeleton. The

Corals multiply not only by means of eggs, cells, each of which contains a little thread coiled into two distinct animals, and by budding ; in OF THE SABBATH SCHOOL CONVENTION OF through openings in the body, long white threads ty thus formed, remaining organically attached pils. 274 Teachers. 196 pupils in bible classes. minute animals killed by coming in contact with many instances what one eats goes to nourish Libraries containing 4630 volumes, and \$333.43

cells, and the stinging, burning sensation ex- ticles are deposited, and thus the whole com- mighty agency for good, is working in our midst. perienced on handling one of the larger kinds munity is firmly soldered together. Many of It becomes us therefore to ponder well the agency, with long tentacles (Cyanea artica) is caused by these communities number tens of thousands of and the object to be secured.

The construction of these animals is extreme- the different mode of growth of the different enlightenment of the pupils is the great design of

Like trees of foliage stript, and clothed With softly tinted mosses all abloom With myriad starry florets, brightly hued, As gems on which the sunbeams fall, And, breaking, scatter in rayed lustrous stars, Flashing with warm rainbow tints. Such are the forms

That tree-like stand around. Stout trunks Rise high the ground above, and wide Throw thickly-woven branches out, No breezes sway them, motionless are they; Beneath the ocean-gale the coral-forest never bends. How lovely they, with flowers encased Each flower a hving polyp, while Gay algae pendant from their bonghs Wave out their streaming fronds ! And like as ferns and shrubs and mosses gay Carpet the floors of forests on the land, So in this forest of the sea, rich moss-like forms Carpet the knolls, and plumy sea-feins weave Thickets as tangled as in sylvan groves. Here is no song of birds, but gilded fish Flash as they swiftly dart the sunlight from Their brilliant sides. Now swallow-like

They wheel and swoop, or, poised on steady fin As humming birds before some floret gay, float motionless. Here Nereids gather pearls and shells, as in the

wood

The maiden gathers flowers, and their palace grots, Deck they with coral boughs, and with festoons Of foliage of the sea.

Museum of Comparative Zoology, Cambridge, Mass., June 13th, 1863.

For the Christian Messenger.

Report

THE CENTRAL BAPTIST ASSOCIATION, AT UPPER AYLESFORD, JUNE 20, 1863 .---D. FREEMAN, SEC'Y.

In presenting our report to this Convention we are more and more impressed with the importance of the Sabbath School institution. In our accompanying tabular statement we have an aggregate of 28 Sabbath Schools. 1788 pu-1:6 scholars who are members of Churches; 22 expended in these schools during the past year. In view of these facts we must feel that a

the piercing of the hand by their innumerable individuals. The hard parts are, when the coral FIRST. Our opinion is confirmed by the histhreads. is alive, entirely within the animals. Owing to tory of Sabbath School effort, that the Spiritual

the enemy. The young heart is the weak point in the wall of Satan's kingdom. Here, too, may be built up the strong fortifications of holiness. Here we may fortify the Charleston, the Vicksburgh, and the Gibraltar of the christian church. And who will say that the prosecution of this spiritural war is not as important as the independance of the Southern States, or the integrity of the Northern, or the guarding of the entrance to the Mediterranean Sea? Who will say that the cause of Sabbath Schools is not as important and worthy of as much zeal, as the founding of earthly kingdoms, since its special design is to establish the Spiritual Kingdom of Christ.

SECOND. But how shall the grand design of the Sabbath School be realized ? What means shall be adopted ? This question is important, because it is evident that such measures may be adopted, as shall thwart the object comtemplated. It is needful for us then, not only to keep in view the real object of the Sabbath School, but also to give good heed to the means most appropriate to that design. The instrumentality to be used is the Bible and the Bible alone. The power to be invoked is the Holy Spirit, and He alone .---We take this for granted without argument to establish it. The same means are to be employed in the Sabbath School as in the pulpit. The Sabbath School teacher is a preacher of the gospel. He has a smaller congregation than the minister, in that he preaches to half a dozen instead of a hundred. But he has this advantage, that he brings the truth in contact with the individgal mind of his pupils. His congregation, too, may be changing, as he has his pupils under him only for a few years. But then if the Lord blesses him, he feels that he is constantly sending forth those who are imbued with his own spirit, and will who engage in the same work .----Thus during a lifetime, from his class, he may be pouring a stream of life and a flood of light upon the world. And the teacher will be successful in proportion as he plies the Word of God, and relies upon the power of God. This is his great qualification, personal piety, involving a missionary spirit. Without this, all external arrangements will be mere bombast. There may be a glitter, but there is no substance. A noise, but it is like "sounding brass or a tinkling cymbal." If we can have but one, either the most perfect arrangements, or the Spirit of God working in the school, give us the latter. Let God