

ROMANCE of the CORALS

Real Miracle Story of How the Wee Workers of the Sea, Despite the Terrible Forces of Nature, Upbuilt a Beautiful Kingdom for Man.

By Carl Ewald

(Translated from the Danish by Alexander Teixeira de Mattos.)

I
T WAS once upon a time, many a long year ago, far out at sea.

But it was the real sea, which is deeper than any one can tell, and so big that the skipper can sail for many days without seeing land. And it was the tropical sea, where the water is almost as warm as in a hot bath at home in Denmark. But it is only on the surface, where the sun shines, that it is so warm. Deep down below the sea is as cold as ice, and, then, it is darker than on the blackest night. And the sea is not equally deep, either, in every part, for at the bottom there are high mountains and low valleys, just as on the dry land.

Now, out there at sea there was a place where a big mountain rose from the bottom nearly to the surface. If one looked up one could see nothing on every side but water and water and just water.

But down in the water there was ever so much more to look at.

For on the mountain grew forests of seawrack which stretched for miles up and down the slopes. When the waves rolled the leaves waved in the water, just as the leaves of the trees upon land wave in the wind. But the stems of the wrack-trees were not nearly so thick and stiff as those of the beech or the oak, and therefore they waved also to and fro wherever the billows drove them.

For the rest, the wrack trees were taller than any tree on the dry land, but they never grew up above the surface of the sea. For when their leaves touched the air they dried up and withered. But when the water was still they spread out and gleamed with splendid colors, red and yellow, green and brown, like the foliage of our own woods in the autumn.

And among the tops of the wrack trees a multitude of jolly fish swam from tree to tree, just as the birds fly in the wood.

But they were not such tiresome gray fellows as the cod and the pike and the eel. Many of them shone like gold and silver; one was sky blue, another scarlet. And then there was the porcupine fish, who could puff himself out into a ball and stick out his bristles on every side and make the other animals terribly frightened.

For there were many other animals in the wrack forest.

There were mussels with the most comical scales and there were snails, with big, many colored shells. There were cuttlefish, who came darting backward through the water at an incredible pace. There were great crawfish, who also swam backward and nipped with their claws, and there were wry, flat crabs, who went sideways and got on all the same.

Sometimes there came a herd of several hundred big turtles, who grazed in the wrack forest exactly like the cows in the fields.

It would also happen that a huge whale came swimming along. Then it grew dark, as if a cloud were passing before the sun, wherever he broke through the wrack forest. And when he struck out with his powerful tail the wrack trees shook as though it were an earthquake.

Once it also happened that a ship sailed over the wrack forest. A sailor fell overboard and he was at once bolted by a big shark, who made one mouthful of him and swam on with a good conscience. Any one can easily understand, therefore, that it was very nice and amusing in the wrack forest. But it was still, quite still, for none of the animals uttered a cry or sang.

II

NOW, in the middle of the forest there was a cozy little open place among the tree tops, not very far from the surface. The water was warm and clear and the place was so situated that it was seldom that anybody came there.

In this place four children used to play with one another every day and chat together according to their lights.

They were all four so small as to be invisible with the naked eye. And if a man had come with a magnifying glass and discovered them he would, nevertheless, have found it difficult to make out one from the other unless he knew an awful lot of natural history.

For they were all round, transparent little things, with fine hair on them, but without heads or legs or eyes or any of the things which belong to a proper animal and which men can't very well do without, either.

And yet they were not related to one another at all. One of them was the child of a coral, the next of a jellyfish, the third of a starfish. But the fourth was a real little oyster spat.

One day they were chatting about what they would be when they grew big.

"I will be a highwayman!" said the starfish-child. "I will hide in the wrack forest and rush out at the mussels and small fish and all the animals I can manage and suck them out to the last drop of their blood."

"I will swim 'round and look pretty,'" said the little jellyfish. "And if any one comes too near me I shall sting him."

"I am destined for something higher," said the oyster spat and looked as important as it is possible to look when one has neither face nor eyes.

"Re-ally?" said the starfish. "How do you know?"

"That sort of thing is born in one," replied the oyster spat. "You must know, I am a kind of domestic animal with men. It is simply incredible the value they set upon me. They all cringe to me. Some of them do nothing but breed and look after and sell me, others do nothing but eat me. They build beautiful big water parks for me with sticks for me to settle on."

"Then it seems to me that it's you who are at the men's beck and call," said the little jellyfish. "However, every one to his taste. Now, I could not imagine anything more frightful than to sit fast on a stick."

"Why, not at all," said the oyster spat. "Give me a calm and sedentary life until I come to be eaten."

Amid all this the coral child said nothing, but waved his hair in the water and listened to the others. And none of them gave him a further thought, for the coral was always the quietest of them, so they did not think that he would ever achieve anything particular. At last, however, the starfish asked:

"Well, my little coral, what do you say? I wonder what's to become of you? Have you thought over it at all?"

"I never think of anything else," replied the coral child.

"Dear me!" said the starfish. "And might one ask to know your thoughts?"

"You would not be able to understand them if I told you," replied the coral.

"Have a try," said the starfish.

And the oyster spat and the little jellyfish said the same. Then the coral child said:

water and stands firm when the waves break against it."

"How you talk!" said the oyster spat. "I shudder when I hear you speak of anything so firm as that," said the little jellyfish.

They teased him all three, but the coral child did not trouble a jot about them, went on waving his hair in the water and said, calmly:

"It shall be a regular island, an island with palm trees and birds. Starfish and jellyfish shall swim round about in the water and the waves shall throw them up on the coast and there they shall lie and rot in the sun. And men shall live on the island—the men who eat oysters."

—Then he said nothing more, and when they were tired of teasing him they all made friends again and

swam around the little spot in the wrack forest and ate animals that were still smaller than themselves, and rejoiced in their youth and existence.

III

SOME time after the four children in the wrack forest were grown up.

The oyster spat had got a shell. He sat on a rock at the bottom of the sea and yawned and let the water flow into him. The body of the starfish had shot out into five pointed arms, which stuck out in the water on every side, so that the animal looked like the star at the top of a Christmas tree. Twice a fish had come and bitten one of his arms off. But the starfish did not mind that. The arm grew again at once, and then the animal was just as good as before, crept about in the wrack trees and became a mighty highwayman, just as he had dreamed of being in his childhood days.

The little jellyfish had not fared so well. One day when he was at a children's party somewhere in the wood he was eaten by a whale who came swimming along with his mouth wide open. There were a hundred thousand jellyfish children at the party and they all disappeared in the whale's stomach.

But when the coral child saw that he was very nearly grown up he swam away from the cozy spot where he had spent his childhood and let the waves carry him right outside the wrack forest.

The little coral drifted about for a long time and looked for a place where he would like to live. At last he found one, right at the other side of the mountain. No wrack grew there. The water was clear and pure, salt and beautifully warm, and there he settled.

He got arms like the starfish, but many more, and they were all in a wreath around his mouth. For now he had both a mouth and a stomach. He noticed gradually that he was becoming quite hard and firm below and within, and before he knew how it happened he had a proper piece of chalk inside him.

"Now it's coming!" he thought, delightedly. "That's the beginning of the island."

One day he put forth a bud on one side, just as the trees on dry land do. And the bud grew into the prettiest stone coral, with arms and a mouth and stomach and a piece of chalk inside him. But he hung on to the old coral and formed part of him, just as the bough forms part of the tree.

The old coral was overjoyed.

"Now we're all right," he said. "Now there are two of us."

Then he told the new coral about the island he meant to make, and the new coral agreed that that was the thing to do. And they both put forth new buds and went on doing so until a fine coral tree was formed, with many branches, which were all full of stone corals. All day long they waved their arms in the water and drove tiny little animals into their mouths and ate them.

One day the starfish came crawling past and stopped in amazement.

"What a queer tree, with flowers on it!" he said. "I am not a tree," said the coral. "I am a coral."

"Goodness me, is that you?" said the starfish. "It's wonderful how you've changed. Upon my word, I should never have known you."

"Nor I you," replied the coral. "But, then, we haven't seen each other since we were children. I'm busy now building my island."

"Are you still thinking of that nonsense?" asked the starfish, and laughed. "I imagined you had become wiser as you grew older. It seems to me, all the same, that you look as you were quite a firm."

"So I am," said the coral. "I have put out buds and branches—all the flowers you see are coral polyps, who are partners with me in the island."

"Well, I never!" said the starfish. "You've turned yourself into a syndicate. Upon my word, that's very clever of you, far you would never have got anywhere by yourself. Do you get on well together?"

"Excellently," replied the coral. "No better family relations can be imagined. We hold together inviolably through thick and thin. Only just think, when one of us has a good dinner all the rest enjoy it as well."

One day he put forth a bud on one side, just as the trees on dry land do. And the bud grew into the prettiest stone coral, with arms and a mouth and stomach and a piece of chalk inside him. But he hung on to the old coral and formed part of him, just as the bough forms part of the tree.

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IV

NOW many, many, many years passed.

But it made no difference. For the sea rolled its waves without ceasing, as it always had rolled them, and the sun shone and the gale blew and the tops of the wrack forest waved in the water.

True, the wrack trees among which the coral child had played had been pulled up and washed away long ago, but others had grown up where they stood. The turtles that grazed there were dead many years since; but new turtles came in their stead. The oyster was gone; the starfish was gone; the many colored fish who

once swam among the trees were gone. Even the huge whale, who ate all the jellyfish children in a mouthful, had got a harpoon in his neck and been killed and boiled down to blubber.

But, though they were all gone, still their grandchildren's children were there and looked exactly like them and behaved exactly like them, so that it was impossible to see any change in the wood.

Only, things looked different just where the coral child had settled down to build his island.

An immense number of coral trees had come and more kept on coming. Millions of little coral children swam out into the world and came home and settled down beside their parents. Millions of the polyps died. In many of the coral trees there was not a single living polyp, but all the hard lime branches were full of stars where they had been.

And the waves had overturned the old trees and beaten them to pieces and flung them in among the others and on the top of the others. Gradually this grew into a great, strong lime reef, and it kept on growing, for the new coral children settled down on the top of the old trees and built on diligently.

One fine day they reached close up beneath the surface.

"Now we have the island!" they said to one another, rejoicing. "If only our great-great-great-great-great-grandfather had lived to see it!"

But they had rejoiced a little too early.

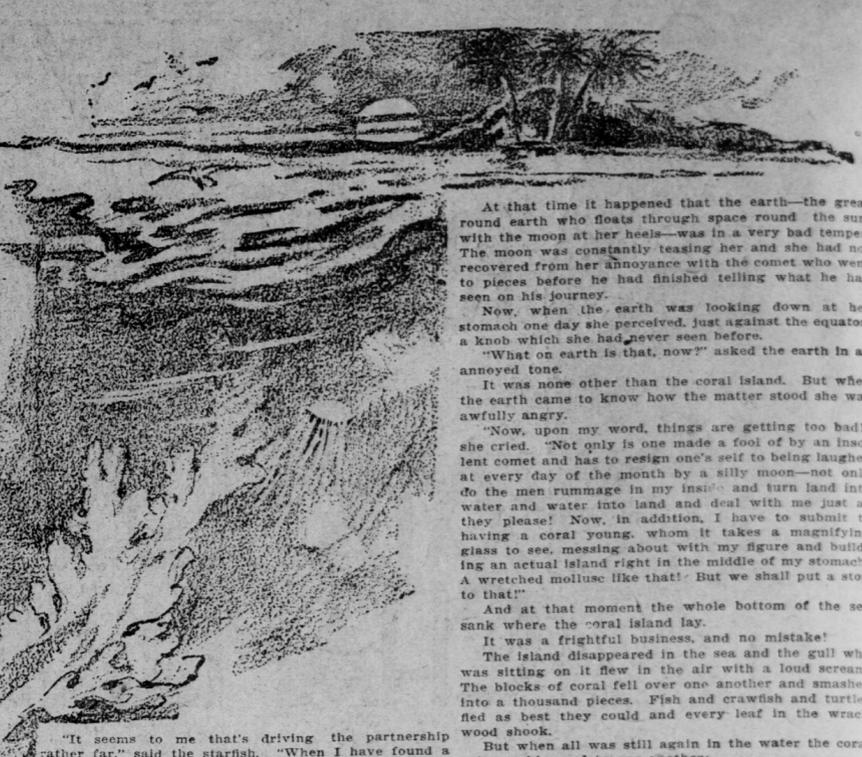
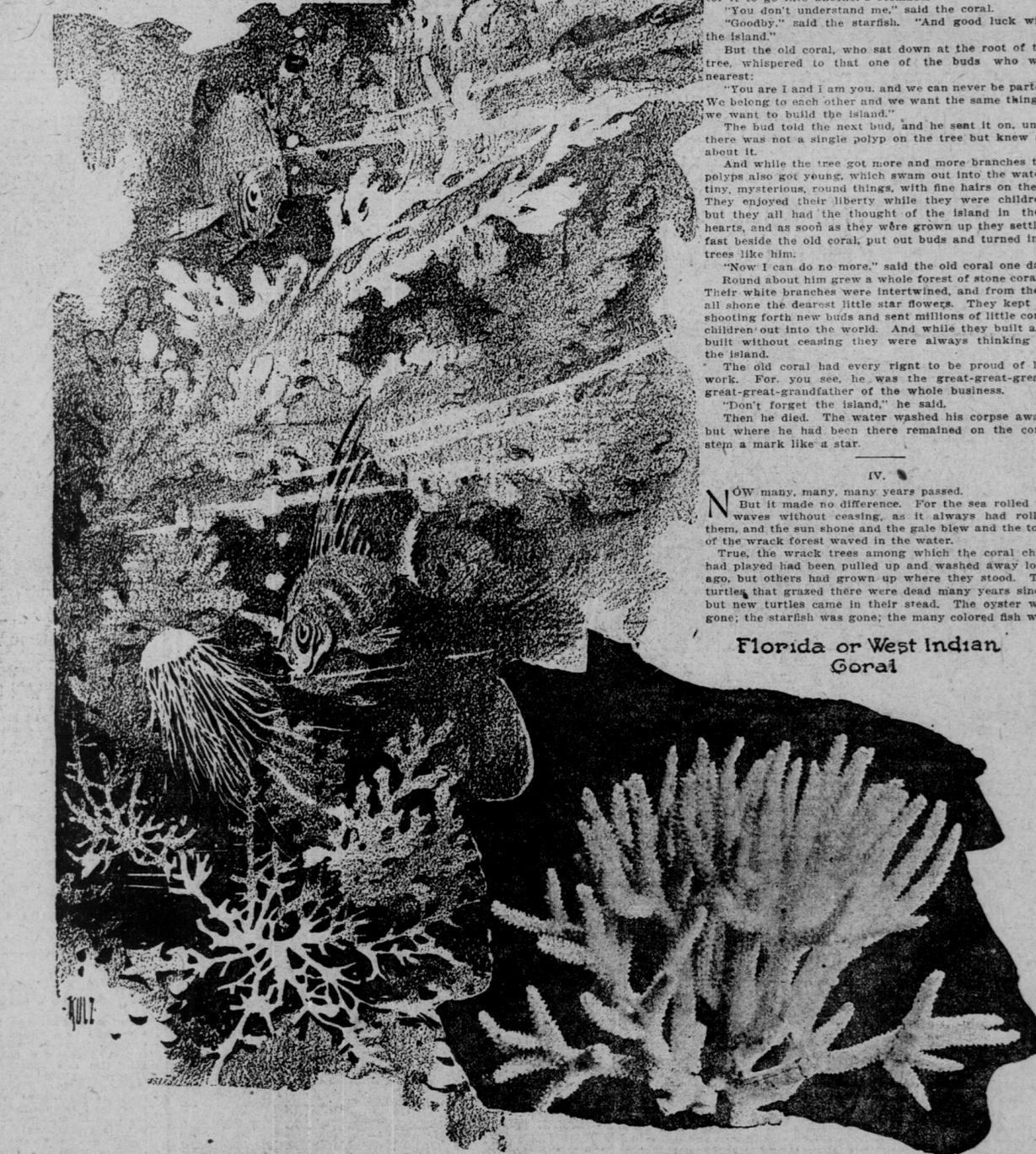
For when they wished to set to and grow up above the water they could not. The small polyps could not bear the sun shining upon them, and, do what they would, they got no farther.

"Now we will help you," said the waves.

And then they lifted a couple of big blocks of coral up from the bottom of the sea and threw them on the top of the other.

Now the island was there. It was not large, that is true, but white and pretty, and it shone in the sun, and round about it, as far as one could see, was nothing but water and water and just water. And every day a big white gull came and sat down upon it.

Florida or West Indian Coral



At that time it happened that the earth—the great round earth who floats through space round the sun, with the moon at her heels—was in a very bad temper. The moon was constantly teasing her and she had not recovered from her annoyance with the comet who went to pieces before he had finished telling what he had seen on his journey.

Now, when the earth was looking down at her stomach one day she perceived, just against the equator, a knob which she had never seen before.

"What on earth is that, now?" asked the earth in an annoyed tone.

It was none other than the coral island. But when the earth came to know how the matter stood she was awfully angry.

"Now, upon my word, things are getting too bad!" she cried. "Not only is one made a fool of by an insolent comet and has to resign one's self to being laughed at every day of the month by a silly moon—not only do the men rummage in my inside and turn land into water and water into land and deal with me just as they please! Now, in addition, I have to submit to having a coral young, whom it takes a magnifying glass to see, messing about with my figure and building an actual island right in the middle of my stomach! A wretched mollusc like that! But we shall put a stop to that!"

And at that moment the whole bottom of the sea sank where the coral island lay.

It was a frightful business, and no mistake!

The island disappeared in the sea and the gull who was sitting on it flew in the air with a loud scream. The blocks of coral fell over one another and smashed into a thousand pieces. Fish and crawfish and turtles fled as best they could and every leaf in the wrack wood shook.

But when all was still again in the water the coral polyps whispered to one another:

"Remember the island!"

And then they set to work indefatigably to build again. After some time they were once more above the surface, the waves flung up huge blocks and the island lay there again.

"Well, I——" said the earth.

And then the bottom of the sea sank lower still. "Remember the island!" whispered the corals.

And some time after the island lay there again.

"Can you go on like that?" asked the earth.

"That we can," replied the corals.

"Ah, then I give in," said the earth. "For I can not."

And the island lay there and stayed there. The corals built on incessantly, the waves flung up more and more blocks, and the island grew ever larger.

One day a big, round, brown thing came sailing and bumping against the side of it.

"Who's there?" asked the corals down in the water.

"It's me," said the thing.

"Who's me?" asked the corals again.

"Don't you know me?" said the thing. "I am the cocoanut. I am celebrated all over the world. I am the one that prepares islands so that they make their appearance on the map and in the geography book. There have even been ballads made about me. One of them begins:

"A cocoanut
On the sea floats"

"That may be," said the corals. "But we know know nothing about it. We have built an island ourselves and have never had time to sing ballads."

"Yes, it's incredible the amount of ignorance that prevails in the world," said the cocoanut. "Well, have you earth enough for me to take root in and grow into a palm?"

"Aha!" whispered the corals to one another. "It's the palm!"

Then they asked him politely to come back later; then they would do their best to provide him with earth to grow in.

"Very well," said the cocoanut. "Then I will float about in the sea for a year. My shell is so thick that I shall not mind."

Then he floated off.

Every time now that there was some sea wrack or dead fish or starfish or anything of that sort in the water the corals begged the waves to fling it on the island. The waves did so and it lay there and rotted and turned to earth. The sea birds came there carrying a cherry stone, which was left, took root and grew up into a pretty little tree.

One day a great, hollow tree trunk came drifting along. When it got up on the island and lay and rotted a whole lot of grass seed fell from it and some time after the island was quite green. There were also two lizards in the tree trunk and they got children and thought the island a nice and cozy place to live upon.

And then the cocoanut came back again.

"Lift me up," he said to the waves.

He shot up and became a splendid tree. His nuts fell all around, and soon there was quite a grove of cocoa palms on the island. Birds came and built their nests in the trees; flowers came and bees and birds and butterflies.

One day a man came sailing in a boat.

His ship had been wrecked and he had drifted on the sea for many days. He was both hungry and thirsty, and when he saw the island he was quite wild with delight, went on shore, ate cocoanuts and oysters and built himself a house in which to live until a ship came that would take him back to his country.

But down in the water the corals kept on building, for they could never make the island big enough.

"Ah, if our great-great-great-great-great-great-great-great-grandfather could only see it!" they said to one another.

How the Ice Crystals Fall

HALOS and similar optical phenomena of the atmosphere have been explained as due to the reflection of the sun's rays from polished sides of minute ice crystals. It has been necessary to suppose that these reflecting surfaces are always nearly or quite vertical, and this position has been accounted for on the ground that it is the position of least resistance as the crystal falls through the air.

Recently a French experimenter observed the fall of models shaped like ice crystals through liquids and reported that they did not assume the required position, thus failing to support the orthodox theory. A German observer, Wilhelm Schmidt, however, testifies to its accuracy by first hand observation. Being up in a balloon he found himself in a cloud of falling ice crystals, in which he saw, as in a vertical mirror, a blurred image of the sun, which proved that the crystals were falling with their reflecting surfaces vertical or nearly so, the blurred character of the image indicating that there was a slight oscillation of each crystal. The original reflection theory of halos would thus appear to be the true one after all.

Evaporation in Electric Bulbs

EVERY one has noticed electric lamps that seem to have been smoked inside. The smoky coating is a fine deposit of carbon from the filament, which begins to evaporate when heated too hot. Carbon is very refractory to heat and does not melt until it reaches the extremely high temperature of about 4000 degrees; but long before this it begins to part with its substance in the form of vapor, just as camphor does, for instance. Some other substances which melt far sooner than carbon do not vaporize in this way when solid, and may thus be raised to a higher temperature without spoiling the bulbs. This is why the lamp with tungsten filament, for instance, is more efficient than the ordinary carbon incandescent. The inventor who can find a method of treating carbon so that it will not evaporate as long as it stays solid will be in a fair way to make his fortune.