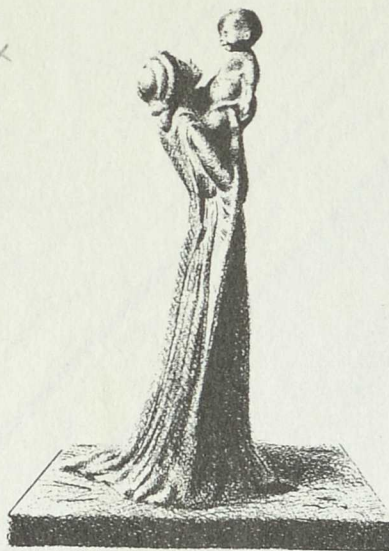




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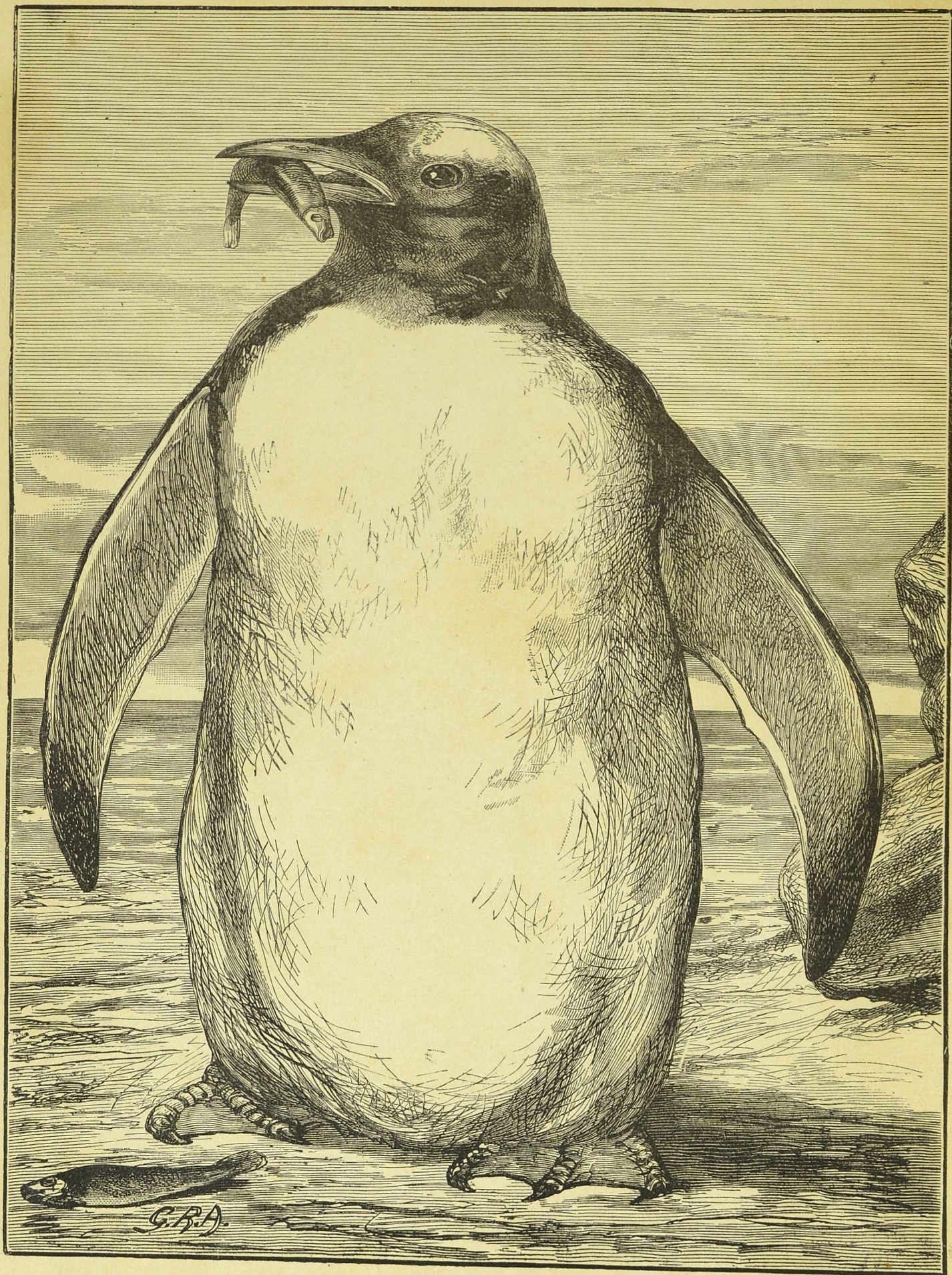


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KING PENGUIN.

ODD FOLKS AT HOME.

BY

C. L. MATÉAUX,

Author of "Woodland Romances," "Peeps Abroad," &c. &c.

Illustrated.

SECOND EDITION.

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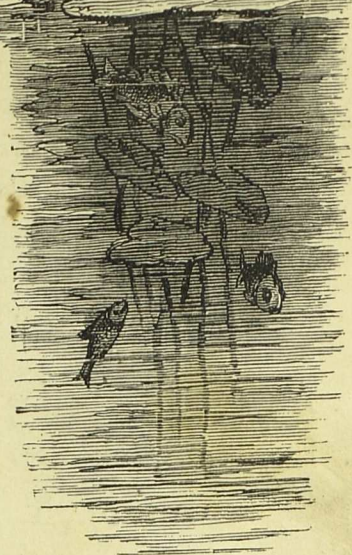
ODD FOLKS AT HOME.



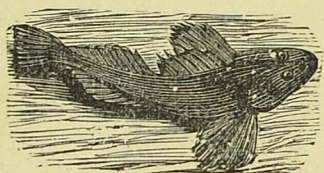
HOW I BECAME ACQUAINTED WITH SOME OF THEM.

SHALL I tell you, in true story fashion, how I first learnt to notice and wonder at odd folks?

Well, once upon a time, when I was a delicate, ailing child, I was sent, for a whole summer, to live in a far-away farm-



house, with strict orders that lessons were to be few and rambles in plenty. There I met an old gentleman who had also come for health and fresh air, and very soon we grew the best of friends, and tramped miles every day, he laden with rods and fishing-tackle, I with pet story-books. We would wander on till we came to some pleasant brook or flowing stream, where we would settle down to enjoy a hearty lunch—then I to my books, he to his angling. Not that he ever caught much, or even tried to, I fancy now; but then he knew so much of the instincts, habits, and ways of every living thing about us, that I loved to hear him



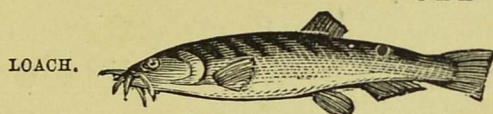
BULLHEAD, OR MILLER'S-
THUMB.

point out the beauties of bird and bee and butterfly, the wonders of the thousands of tiny lives hovering about the wide-spread water-lilies, or hiding among the tall bending reeds that grew in such profusion around us.

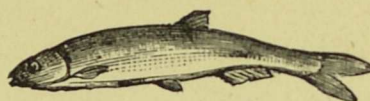
Besides other pleasant things, he taught me to know the names and nature of the many shining fish gliding in the waters at our feet, and pointed out how

“Our plenteous streams a various race supply :
The bright-eyed perch, with fins of Tyrian dye ;
The silver eel, in shining volumes rolled ;
The yellow carp, in scales bedropped with gold ;
Swift trout, diversified with crimson stains ;
And pikes, the tyrants of the watery plains.”—*Pope*.

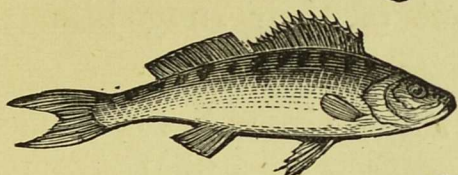
At first I, being a town lad, could scarcely tell a minnow from a stickleback, or a gudgeon from a roach or a miller's-thumb—though I had some idea that last awkward fellow



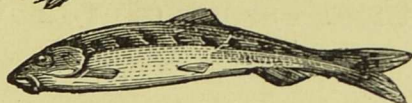
LOACH.



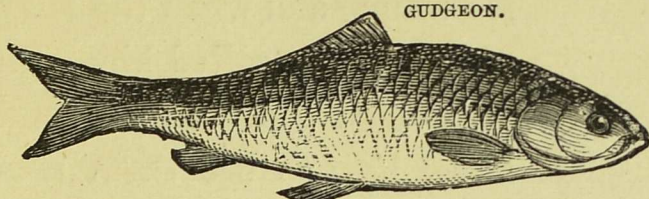
BLEAK.



RUFFE.



GUDGEON.

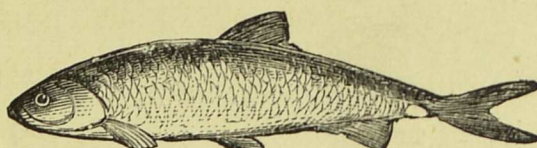


CHUB.

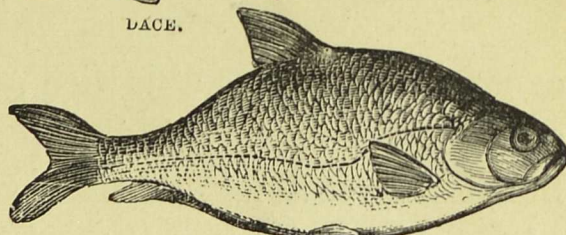
owed his name to his resemblance to the mis-shapen top-joint of the miller's thumb, and not to his fond-

ness for the cool shallows about the mill-pool. But in time I could name the slender dace; the barbel, "than which fish a braver does not

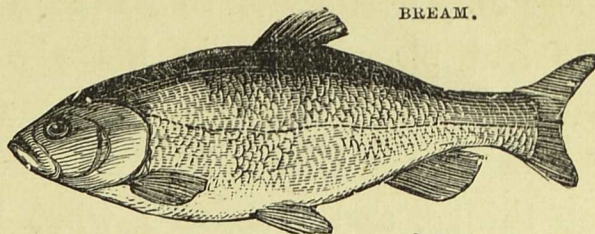
swim;" "the perch, with prickly fins;" and that prince of pretty, artful fish—the speckled trout—lying so quietly under the shelter of the large green stones. How the young ones would dart out for a nibble! and how coolly the older trout would lie resting in the deeper pools, and refuse to rush at the most cunningly-contrived fly—not they! They generally scorned the glittering bait,



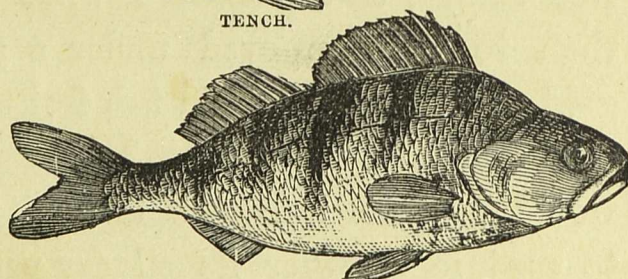
DACE.



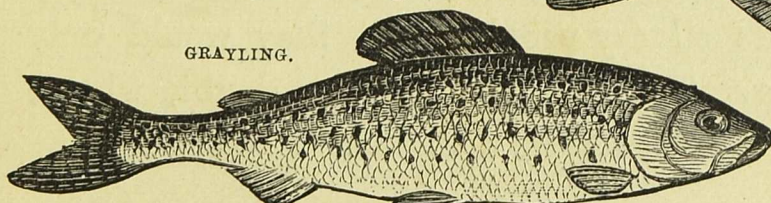
BREAM.



TENCH.



PERCH.

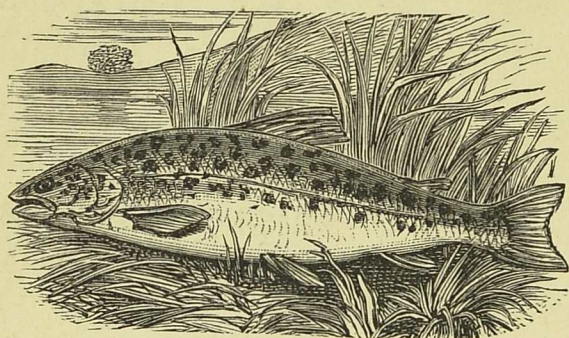


GRAYLING.

though I must admit they often fell a

prey to the bare-legged boys, who with a rough line would "tickle" them one after another out of their snug hiding-places.

I had always felt interested in trout since I read that pretty fable concerning them—some of you will know it:



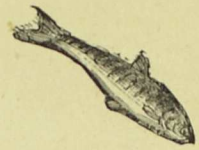
TROUT.

how one, discontented, wished for wings, and when the fairy of the waters gifted him with them, died because he did not know how to use them properly; of his fretful brother that asked for the power to see and understand all the dangers to which a trout was

exposed, and having this wish granted, died of starvation, being afraid to stir from his hiding-place, or even to eat the food about him, lest some ill might befall; happier far that third little trout, whose only desire was to be taken care of by the wise Creator who had placed him in his pleasant home, and kept him there in health and safety many a day, without aid or power of his own. Often I looked down at the pretty, gliding, free things, and wondered what happier life there could be than to lie open-eyed under a great tangle of green and gold water-lilies. Could fish feel the soft reflection of sun and sky, and moon and stars? Often, a willow wand in hand, would I wade into one favourite stream of mine, and try to conjure together its silvery people; but they would only circle round with a great splash, puzzling, no doubt, why I, poor ignorant mortal, troubled their domains.

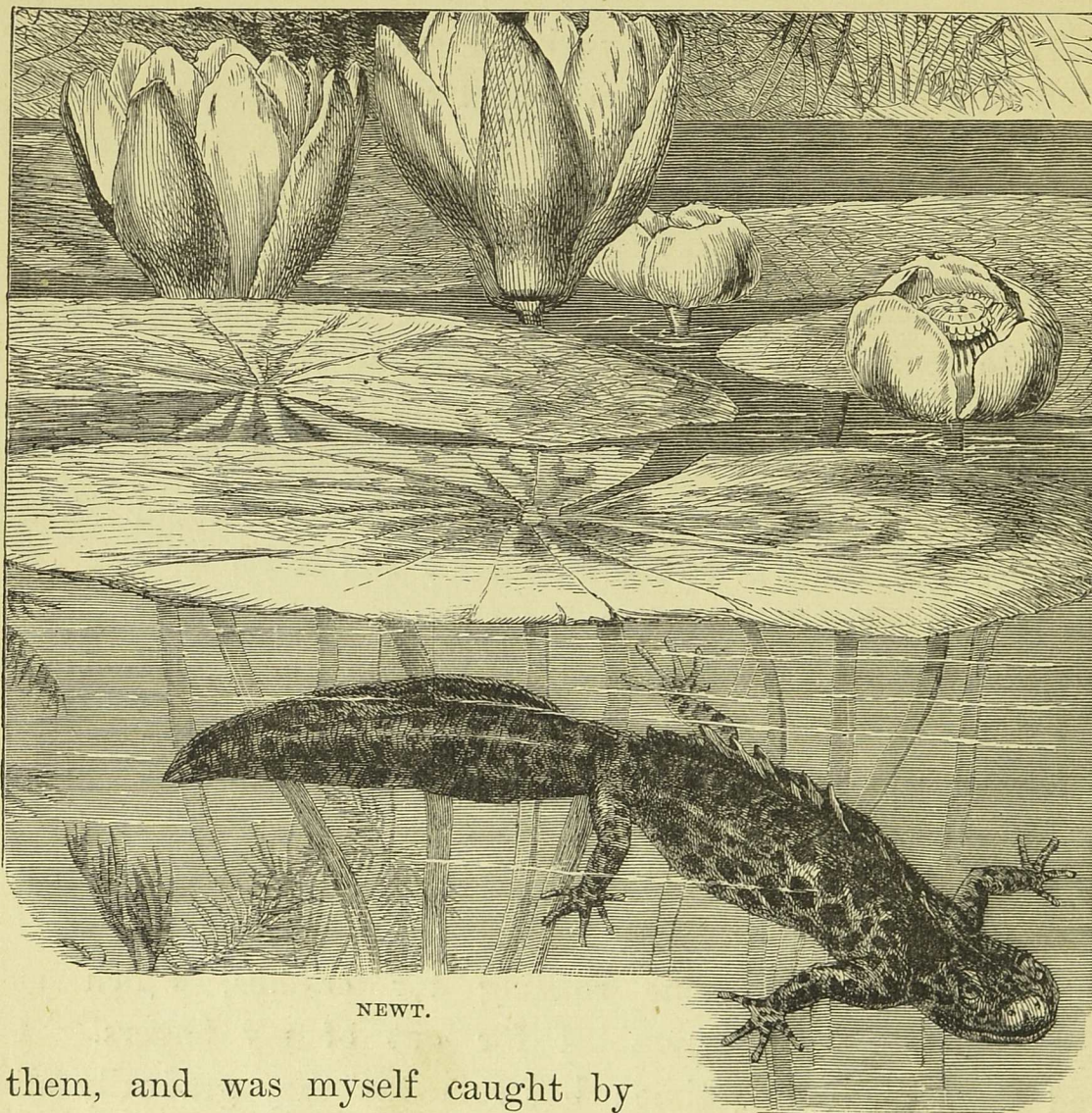
Perhaps you will wonder what there was to enjoy in this kind of life when I tell you that I never particularly cared for angling itself, even when I grew up; but I did enjoy watching the fish "at home." Their round, unblinking eyes, that could certainly see; their sharp sense of hearing—for how the least sound would send them dashing away; their delicate sense of smell: how they would retreat in sudden disgust if sight, sound, or smell offended them!

But after a time my old friend went back to London, and I was left alone to enjoy myself as best I could. The first thing I did was to start—shall I call it an aquarium? Not that such a fine name was given to such things in those days. Mine was only a large, much-chipped, green glass bowl, which I turned upside down and filled with water, in which I placed a number of frisky minnows that I collected for the purpose. The little things learned to know me in time, and when I tapped on the green walls of their home would come rushing for crumbs, which at last they regularly scrambled for out of my fingers. I had them for a long time; but somehow they gradually all vanished. Some were given away, and others *would* flop out and die about the rough, sawdusty floor of the tool-house; so that in the long run they proved a complete failure, and my "aquarium" stood empty and forgotten for weeks.



MINNOW.

But one delightful day I found swarming about a little bay in my favourite pond a whole colony of newts—"efts, or evets," the folks thereabouts called them—the queerest creatures, like lizards with flattened tails. I soon caught

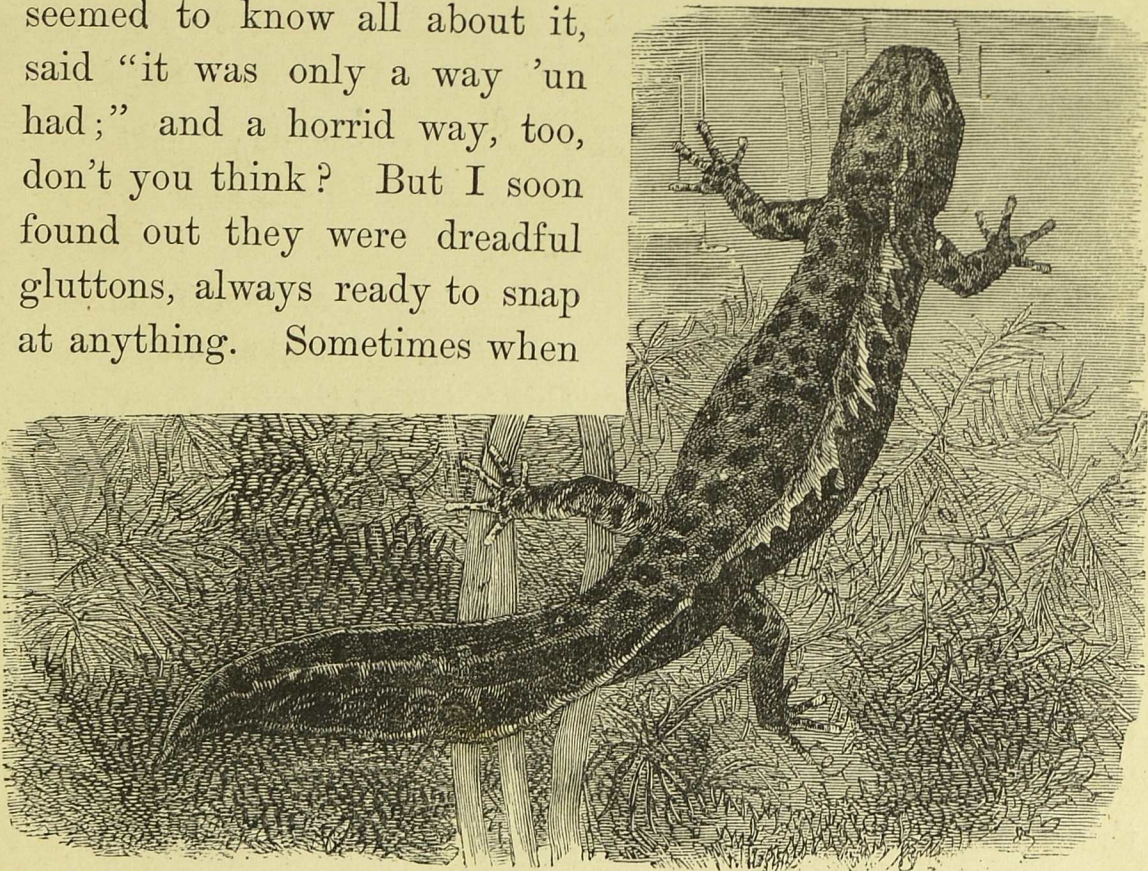


NEWT.

them, and was myself caught by something that startled me dreadfully, being nothing less than a long grass snake. I did not know then that English water snakes do not hurt folks, and I shrieked for help when this one wriggled about my leg so suddenly. Joe, the field lad who came running to the rescue, merely pulled it off and flung it aside, remarking, half contemptuously, that I must expect to find such like things if I went "a-poking about hedges and ditches." However,

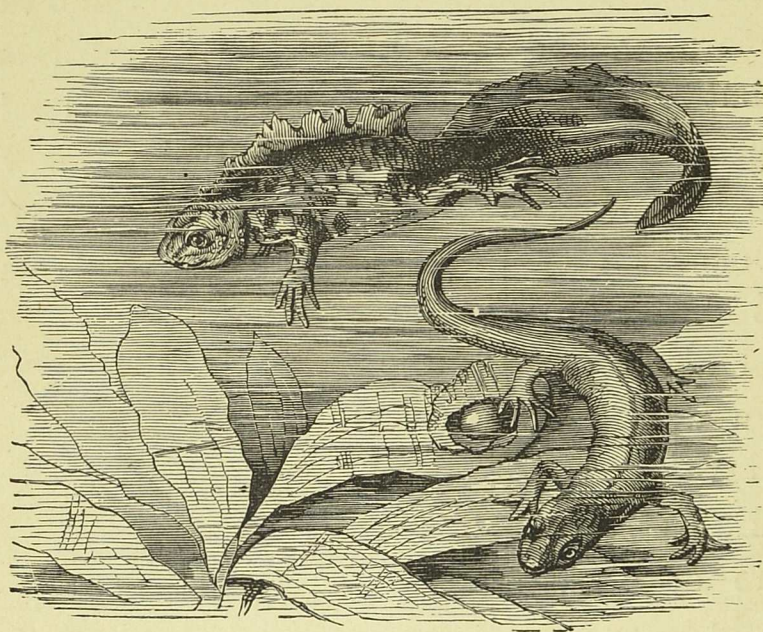
Joe helped me to gather up my frisky newts, and we brought them home, and put them in the old glass bowl, which he half-filled with big stones and shells—because he said evets would surely die unless they could crawl out of the water at times—and he roofed the whole in with bits of slate, leaving just room enough for my new pets to breathe. I tumbled up very early next morning, and rushed to see if the captives were alive. Yes; but what do you think? They had all shed their skins during the night, and actually were now busy eating them for breakfast, like so many rolls.

Oh, dear! I *was* shocked, for I thought the poor creatures were starving; yet Joe, who seemed to know all about it, said “it was only a way ’un had;” and a horrid way, too, don’t you think? But I soon found out they were dreadful gluttons, always ready to snap at anything. Sometimes when



ANOTHER NEWT.

I was feeding them, two would get hold of the same piece, and pull, and push, and roll, and struggle, till it broke into bits between them. However, I kept them all the summer, giving them fresh water every day, and feeding them well. They grew prettier each time they changed



QUEER PETS.

their skins, which came off all in pieces : though that of their feet slipped off whole, and floated about, looking like the tiniest of silk gloves, fit for a fairy. The Mrs. Newts had beautiful crimson-tipped crests waving all along their

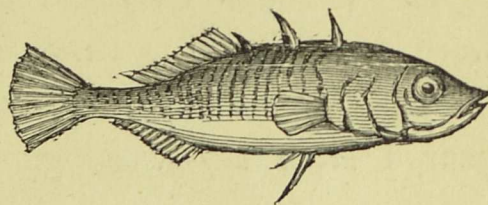
backs ; and it was fine fun watching them, though the village folks wondered at my being allowed to keep such venomous things, and declared that if any of them came near a person asleep they would be sure to jump down his throat! However, they seemed quiet enough. Poor mites ! they never even attempted to bite ; and I don't know how it is that they have won such a bad reputation.

One day, while playing ball, I flung the hard round thing right on to my "newtery," and though it did not appear at the time to have done any damage, it

must have cracked the bowl, for next day I found it empty and dry—the water and the newts had alike disappeared, no one could tell where; and thus ended family number two!

The next collection that I ventured on consisted of a number of sticklebacks, which I caught in a running stream, and transferred to a tub of water. They were of different kinds, but I think the three-spined were the prettiest—such dear little things, with three long, sharp spines, like needles, generally sticking straight up on their backs. When these were down,

they looked very much like minnows; and Joe told me that he had heard of a silly boasting boy offering to swallow a minnow alive for a wager. His mischievous



STICKLEBACK.

playmates gave him a stickleback with its spines down instead, and he popped it instantly, tail foremost, into his mouth, thinking to swallow it easily, but it put up its spines, which stuck in his throat and almost choked him. Fortunately, some one near thought of making him eat a piece of hard apple, which dislodged it, but his throat was sore and scratched and hurt for a long time. I should think he gave up swallowing live things after that.

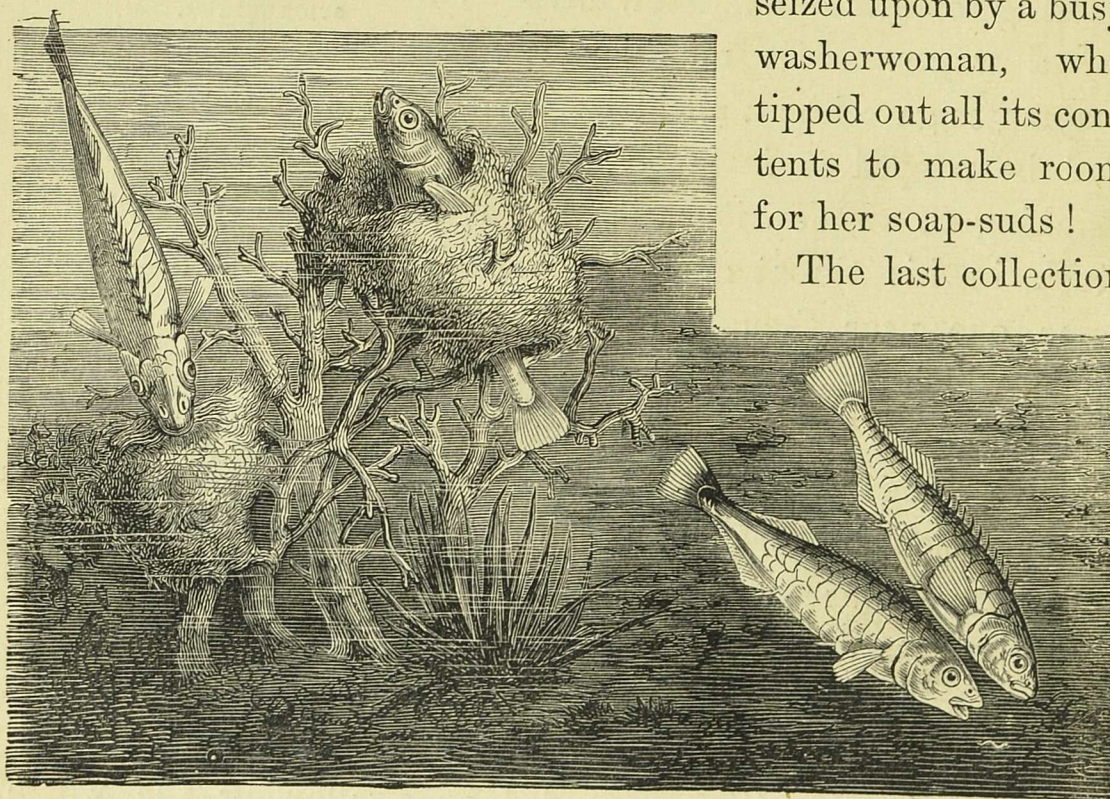
My sticklebacks, though so pretty, were dreadfully greedy and quarrelsome—worse than the newts a great deal. If anything was dropped into the water for one of them, about a dozen others would make a rush, and sometimes all get hold of it at once, and wriggle, and struggle, and bite, as though their very lives depended on swallowing the whole

thing. Sometimes two would have a pitched battle, dashing about, and trying to tear each other's sides with their pointed fins. Then whoever got the best of the struggle would sail about triumphantly, with his coat of shining grey, green, and gold brighter than ever; while the defeated one would sneak off, looking dull and disconsolate enough. I had heard that "stickles" built nests, but though I gave mine plenty of grass, and watched them closely, they never seemed to trouble themselves to do anything but eat and fight. Perhaps they did not care to build nests while they were in captivity, as they certainly do in a state of nature.

In time, from one cause or another, they, too, disappeared from my catalogue of pets. I believe the tub was

seized upon by a busy washerwoman, who tipped out all its contents to make room for her soap-suds!

The last collection



STICKLEBACKS AND NEST.

I remember making that summer was in a glass cup, which I filled with sand and stones and clear spring-water. Then I put in water-snails, some minnows, and a queer little tad-



MY AQUARIUM.

pole or two, roofing them all in with fresh moss and grasses. This was a great success; every one admired it as it stood in the deep-latticed window; but ill-fortune came in the form of a big stray dog, that, pouncing in in a hurry, tipped the whole thing over, broke the cup, and scattered its contents all over the carpet, much to the disgust of my hostess.

When I returned to my city home I talked so often of my country treasures that my father bought me some shining gold-fish in a respectable glass bowl. They were very nice and grand, but somehow I never cared for them as I had done for my dear old vagabond newts, stickles, and minnows, and did not grieve much when they all suddenly died, poisoned by the cement with which a china basin had been mended, in which they had been placed while their own crystal palace was being cleaned and refilled.

It is the memory of those old times, and the innocent pleasure I found in such simple, childlike delights, that has made me hope you would feel interested in such a book as this, even though I take you far away in search of odd folks, and bid you peep into the deep waters of the sea, or rake up the tangled masses of weed to find them at home. Most boys know something of the many queer creatures swimming, hopping, or creeping about the banks, or in the ponds or pools we all love to haunt on summer holidays, so I will not detain them there longer than just to point out some of our best-known friends, generally found lurking in some such willow-shadowed place as that

“ Pure stream in whose transparent wave
My youthful limbs I wont to lave.
No torrents stain thy limpid source,
No rocks impede thy dimpling course
That sweetly warbles o’er its bed,
With white, round, polished pebbles spread,
While, lightly poised, the scaly brood
In myriads cleave thy crystal flood :
The springing trout in speckled pride,
The salmon, monarch of the tide ;

The ruthless pike intent on
war,
The silver eel and mottled
par.
A charming maze thy waters
make
By bowers of birch and groves
of pine,
And edges flowered with
eglantine."—*Smollett*.

We might linger long
by its banks, wondering
at "the scaly brood,"
at the great hungry
pike swimming up with
eager, open mouth to
catch some passing
brother, at the pretty
silvery dace, glancing
here and there in the
sunshine, at the chubby
chub or cheven, at
home in the shady
nooks of most rivers,
and of whom it has
been said that he

"Invites the angler to a
tournament,"

in which contest he
generally comes off
victorious.

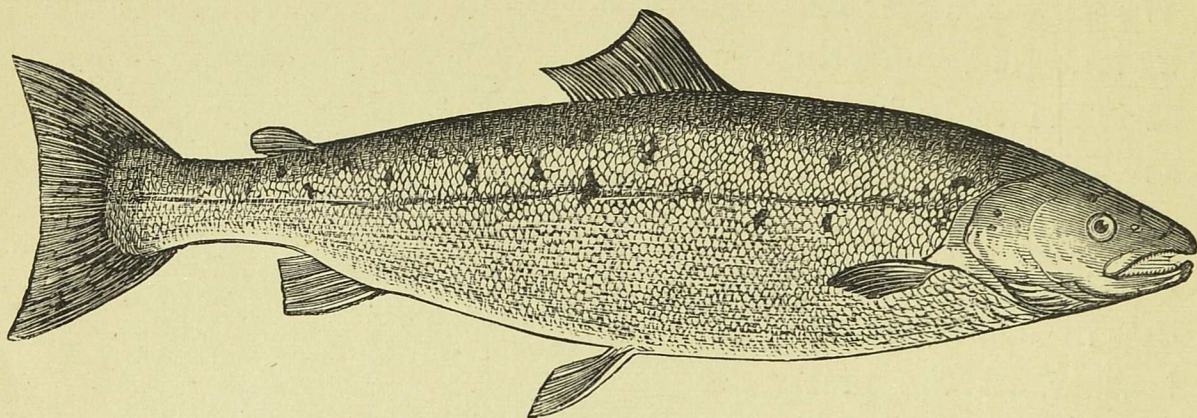


WAITING FOR A NIBBLE.

Now for the shining salmon, monarch of the tide,
that—

“Long time following, cautious scans the fly,
And oft attempts to seize it.”

And he deserves special notice, for he is reckoned the king of dainty fish in England, where eager anglers spend long hours in patient hope of a nibble from this gentleman. He is plentiful enough in some other countries, as indeed he once



SALMON.

was in Great Britain, for we read that City servants and apprentices made it a condition that they should not be expected to eat salmon for dinner above three days a week. I fancy such people might not consider that a great hardship now. See, here is what a traveller by the Amoor, one of the largest rivers in Asia, tells concerning him:—

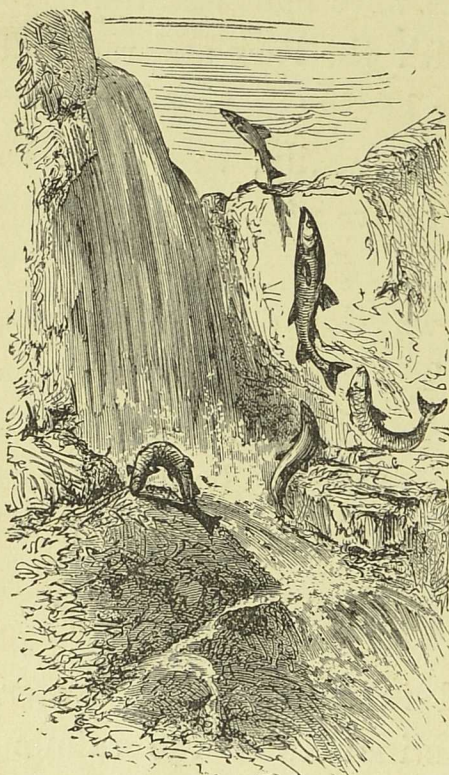
“The river, at the place where our boat was moored, is nearly a mile in width; patches of pleasant woodland dot the plains, or extend to the bank and the sandy beach, where, beneath thick clusters of foliage, crowds of dirty Gilaks erect their picturesque homes. In front of each hut was drawn up an old-

fashioned, fancifully-carved canoe, and all along the shore we could see bare-legged natives toiling at their long nets, and strewing the banks with hundreds of fine salmon that glittered like silver in the sunshine. These fish were split and hung to dry on long poles ; fish and berries, with the bark and roots of trees, being about all the food the poor hardy Gilaks get during the long and dreary winter months. Luckily, salmon is so plentiful that at times the waters seem alive with them. Being obtained so easily, they are not prized, but flung to the dogs by hundreds. In some of the shallows the dogs will even go and fish on their own account." This same traveller, who went far north in sleds, tells us that the Eskimo dogs, which ran harnessed together by sealskin thongs, had but one meal a day, which usually consisted of an immense dried salmon, which was the cheapest dogs'-meat known in that part of the world.

Of all migratory creatures found in earth, air, or water, none exhibit a more wonderful instinct than the salmon, which, born in rivers and shallows, start off, somewhere about May, on a sea-journey of perhaps a hundred miles, to be accomplished without guide or parent to protect them, though after a time they are sure to return, whatever may be the danger, toils, and difficulties of the way, to leave their young in the same stream where their own youth was passed so pleasantly.

If I showed you some of the places over which the returning salmon springs, you would hardly believe it possible that the pretty soft things could ever accomplish such a leap. On the Liffey there is a cataract ninety feet high, where at

times the salmon can be seen springing up the torrent, often to tumble back with a heavy splash, yet soon returning to make another attempt. The falls of Kilmorack, in Scotland,



SALMON-LEAP AT KILMORACK
INVERNESS-SHIRE.

are also celebrated for their finny visitors. Of late years salmon steps and ladders have been erected for this determined traveller's accommodation.

Our other river friends, the carp and pike, both fast growers, have been known to live over a hundred years, but the salmon is said to grow fast, and die soon.

Drayton, an ancient writer, says the travelling salmon

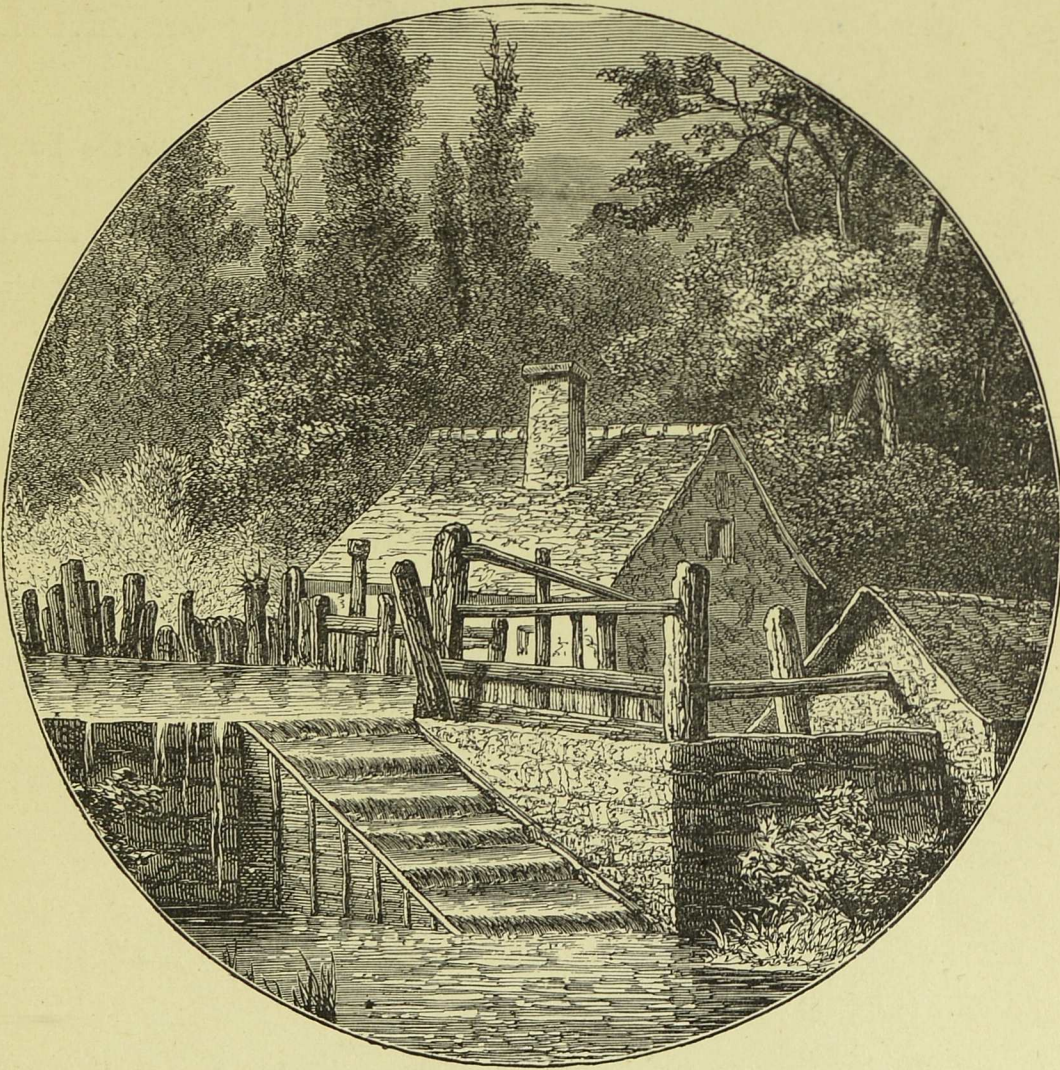
“His tail takes in his teeth, and bending
like a bow
That's to the compass drawn, aloft him-
selfe doth throwe,

Then springing at his height, as doth a little wand
That bended end to end, and flirted from the hand,
Far off itself doth cast; so doth the salmon vault;
And if at first he fail, his second sommersault
He instantly assaies.”

But he does not really hold his tail, though he appears to do so to those watching him at a distance.

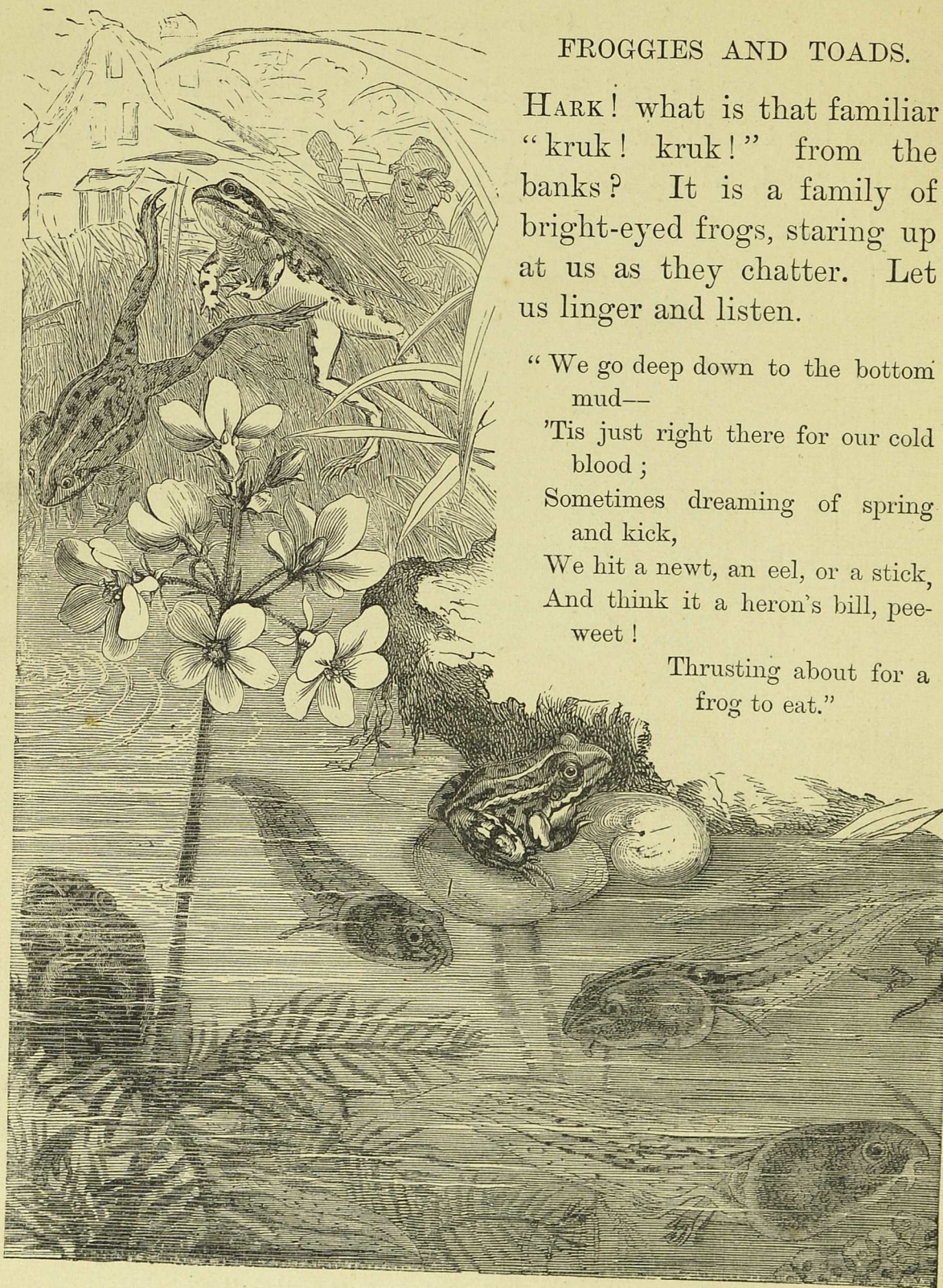
Sometimes it is necessary to divert a quantity of water from a stream frequented by salmon—as, for instance, when

a mill is erected; and in such cases a "ladder" is made, to enable the fish to pass the dam. Here is a picture of one very simple kind, which the tired salmon must be glad to meet with.



SALMON-LADDER.

Baby salmon are first called "fry," then "smolts," and, as long as they weigh less than two pounds, "salmon peel." But all above that weight are known as "grilse."



FROGGIES AND TOADS.

HARK! what is that familiar
"kruk! kruk!" from the
banks? It is a family of
bright-eyed frogs, staring up
at us as they chatter. Let
us linger and listen.

"We go deep down to the bottom
mud—

'Tis just right there for our cold
blood ;

Sometimes dreaming of spring
and kick,

We hit a newt, an eel, or a stick,
And think it a heron's bill, pee-
weet !

Thrusting about for a
frog to eat."

“How do you know what time to get up?
What is your hour to dine or sup?”

“We snap at a worm whenever we can,
Get up when we wake; don’t you, my man?”

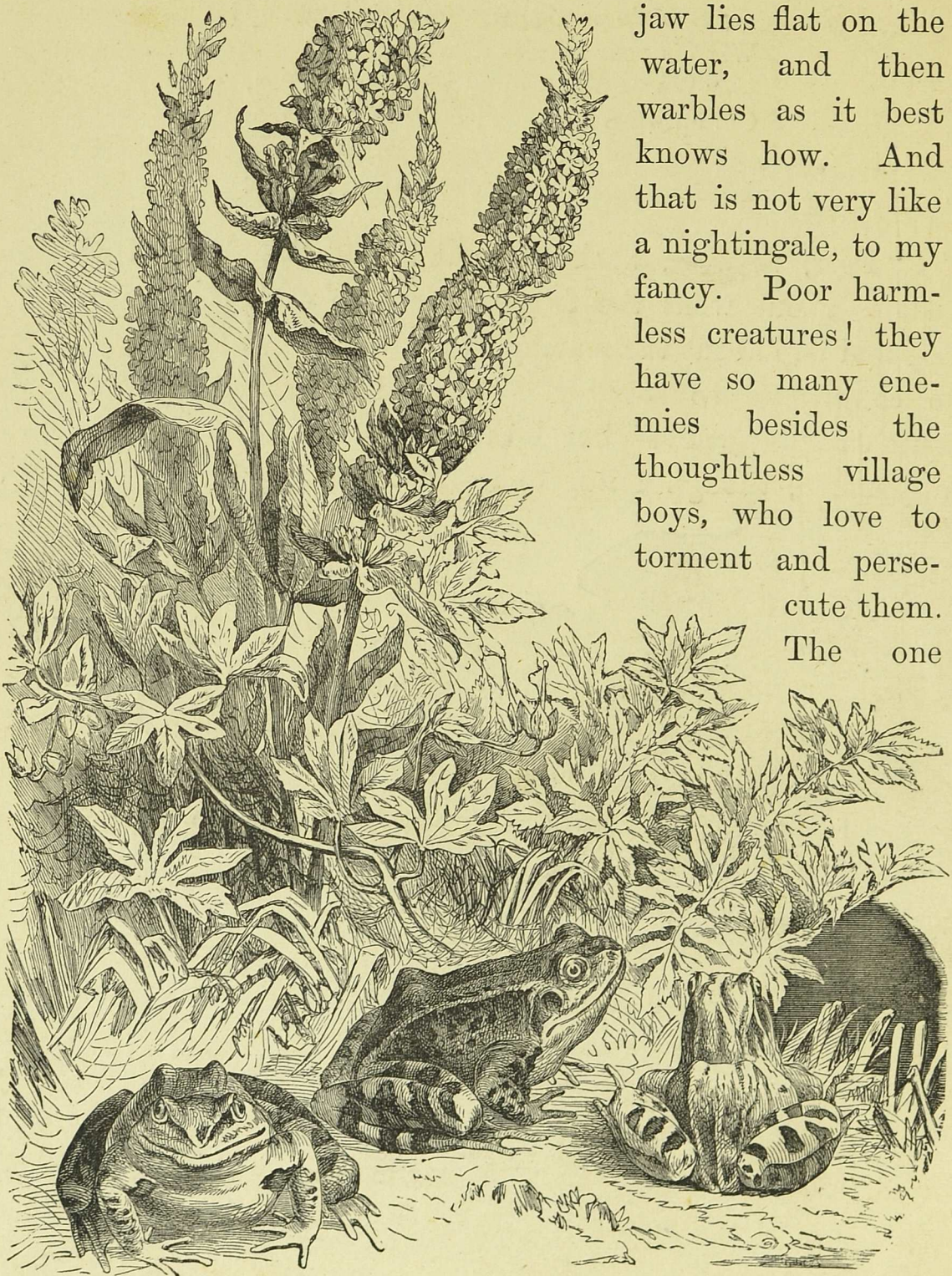
Then they fall to croaking all over the brook,
Big frog, little frog, kruk! kr-r-uk! kruk!

“Peet, pe-weet, kruk! kr-r-uk! kruk!” Yes; I think that is about what the frogs observe to each other as they hop and flop about the marshy, stagnant pools, where they love to congregate so sociably. Some have called them “the Dutch nightingales;” but I cannot say I admire their voices very much, though I like to watch one sing; for it generally

sinks under the boughs
and leaves, opens a wide
mouth until the lower



jaw lies flat on the water, and then warbles as it best knows how. And that is not very like a nightingale, to my fancy. Poor harmless creatures! they have so many enemies besides the thoughtless village boys, who love to torment and persecute them. The one



they dread most is the common snake, which will even venture into the water and swallow them, spite of kicks, and cries, and struggles. No wonder that they dread the sight of a snake so much that the very wriggle of a walking-stick in the grass will



THE EDIBLE FROG.

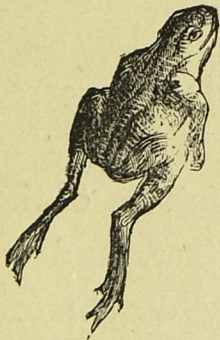
send them flying in wild alarm. However, Froggie himself will swallow all the little insects or creatures he can get hold of; slugs, snails, worms, anything he can snap up with that long and curious tongue, fixed almost at the entrance of his mouth. When at rest, it points backwards down his throat; when active, it can dart forward, seize the fly, and, carrying it to the back of the mouth, swallow it in a twinkling.

They are hungry fellows, too, and after a good shower

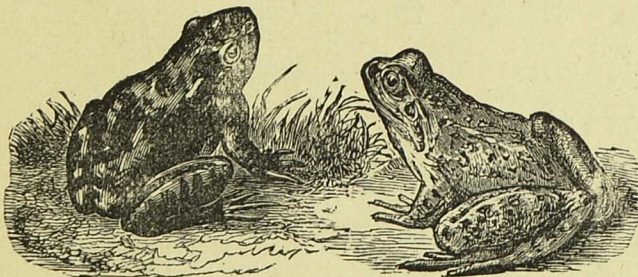
of rain they leave their swampy retreats and rush, hop flop, up and down in search of food. Gardeners are glad enough to see them about their green-houses, for they know Froggie will destroy a great many tiresome little insects of one kind or another. The big bull-frogs of America will swallow larger game. I heard of a boy who, having undertaken to bring up a family of orphan ducks, carried off his seven pretty, fluffy little things to a pond at some distance from the house. There he put them down on the bank, and in they trotted, with a delighted "Chuggle, chug, chuggle," swimming and diving about most merrily, their protector looking on with admiring eyes. All at once there was a splash and a stifled "Squaw!" and behold only six fluffy ducklings left staring at each other. Where was their missing brother? Ah, where? Unless those could be his legs just disappearing down the capacious throat of a huge bull-frog that had been squatting, hidden from all view, on a broken tree-stump under water. We may imagine what a chase that boy gave the enemy, wading as far as he dare in the shallow stream, but all to no purpose; Mr. Bull-frog had vanished for good, no doubt. But the next day the same thing happened again. Six ducklings went for a swim, and only five returned to land, and the next day only four remained, and that ugly giant of a frog, caring neither for sticks or stones, was evidently lurking near, dodging and watching, ready to gobble up the rest of the family. But the infuriated lad gave him no chance that time, for he baited his hook with a big grasshopper, at which Sir Greedy very soon made a grasp, and so got caught himself. I need not say that he swallowed no more ducklings after that.

But wonderful tales are told of this kind of frog, which measures over seven inches in length. It is said that it can leap faster than an Indian can run, and that the natives sometimes amuse themselves by having races with him, Bully being generally the winner.

Frogs are sometimes used for bait by fishermen, but it is a cruel thing to use the poor creature for this purpose, for if the fish do not take a fancy to him within a certain time, he will be drowned slowly but surely. "Drowned! a frog drowned! What *are* you talking about?" perhaps some of you will inquire. But a frog will drown, unless he comes up every now and then to breathe, for he is what is called "amphibious," that is, can live on land or water, but he cannot live altogether in water, except in his first or tadpole state; and though he can drown, he cannot drink, that is, with his mouth,



I mean. No; he absorbs water through his skin, and a good deal of it too; so that if you were to put a thin, half-starved looking frog into a cool, damp place, he would soon look quite plump and well again. Very much like the difference between a dry sponge and a wet one.



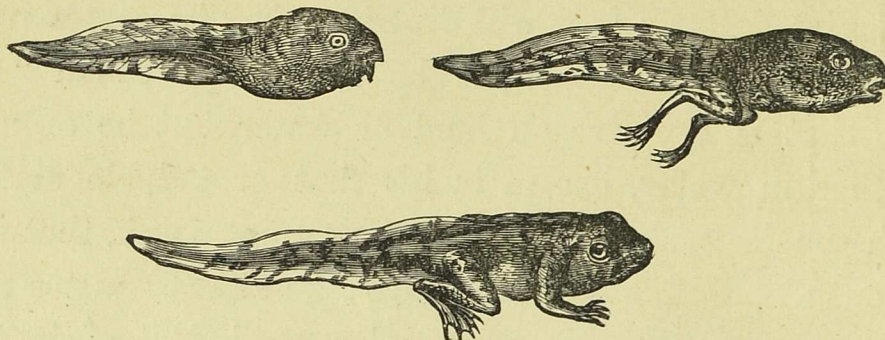
Now about a baby frog. All creatures of this kind are oviparous, that is, produce their young by laying eggs; and I daresay that if you have lived in the country you may have noticed, when

walking near ponds, or pools, or stagnant waters, about the beginning of March, a great many slippery-looking lumps of jelly full of black spots. These spots are frogs' eggs,



FROGS' EGGS AND YOUNG TADPOLES.

and one frog lays enough to people a parish; but they are almost always all gobbled up by the birds, rats, and water-snakes of the neighbourhood, and even by frogs themselves,



TADPOLES.

when they cannot get duckweed enough, or insects are scarce and hard to snap at.

When the eggs are first laid, they sink to the bottom of the water, but as they enlarge they rise to the surface, and in about twenty days begin to open, and in twenty days more

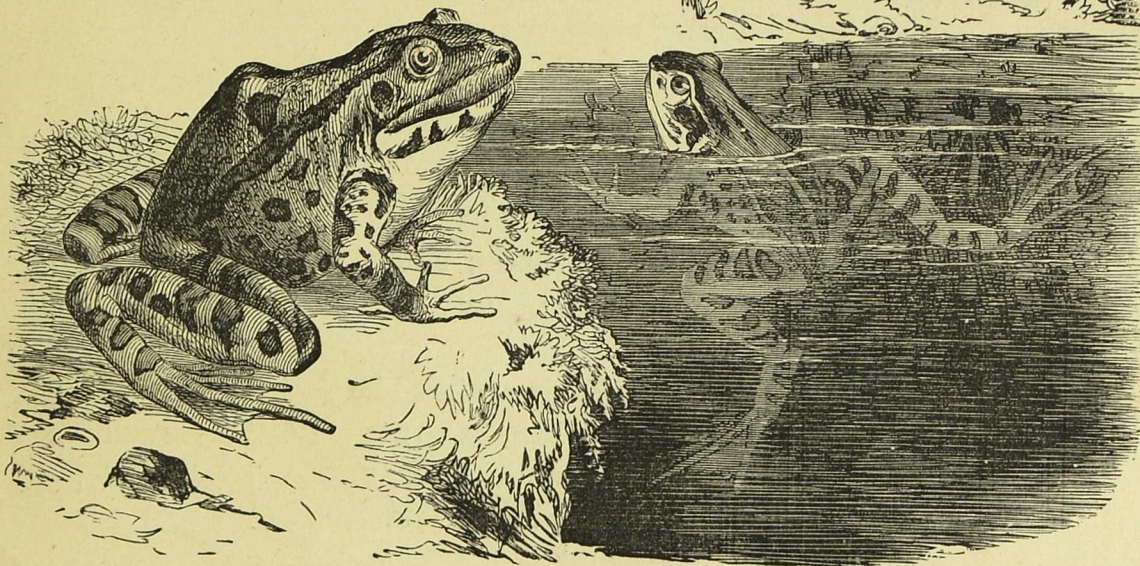


the little tadpoles commence to move about. Once safely hatched, those little tadpoles are the



queerest looking objects you can imagine. Tiny black, flat-headed, wriggling creatures, all head and tail; they have gills like fishes, and swim with their tails, like eels; their mouths are low down like the sharks, so that the "tiddler" has to roll over every time it eats, which must be a most awkward way of dining.

The hind legs of a particular kind of greenish frog, called "La Muette," or silent frog, are eaten in many parts of France, where there are registered froggeries, from which many thousands are supplied to the open market, the women dressing them while the customer waits to carry them



A DANGEROUS NEIGHBOUR.

home to stew. They are said to be as nice as young chickens, but rather expensive. Fortunately for our English frogs, we have not taken to eating *them* yet.

Women catch them very rapidly, by waving scraps of old red flannel tied on to a fish-line. The greedy things snap at it directly, thinking it something alive, and, entangling their



MR. TOADIE AT HOME.

teeth in the wool, are whisked out of the water, and into a deep tub, where they vainly cry, "Pee-weet, kr-r-uk, tweet!"

And now a few words about toads, those first-cousins to the frogs, though of course—

I know how strongly against him
Some popular whimsies go;
But the toad is never vicious,
Nor silly, or stupid, or slow.

Stupid ? perhaps you never
Noticed his jewel eyes ;
Slow ? or his tongue's red lightning
Striking the darting flies.

I wonder why most people profess such a disgust for the poor, harmless, ugly old fellow, staring about with bright, wondering eyes, that seem ever on the watch for an enemy ; and surely it has too many besides the village lads, who, I am sorry to say, are often very cruel to the poor helpless things.

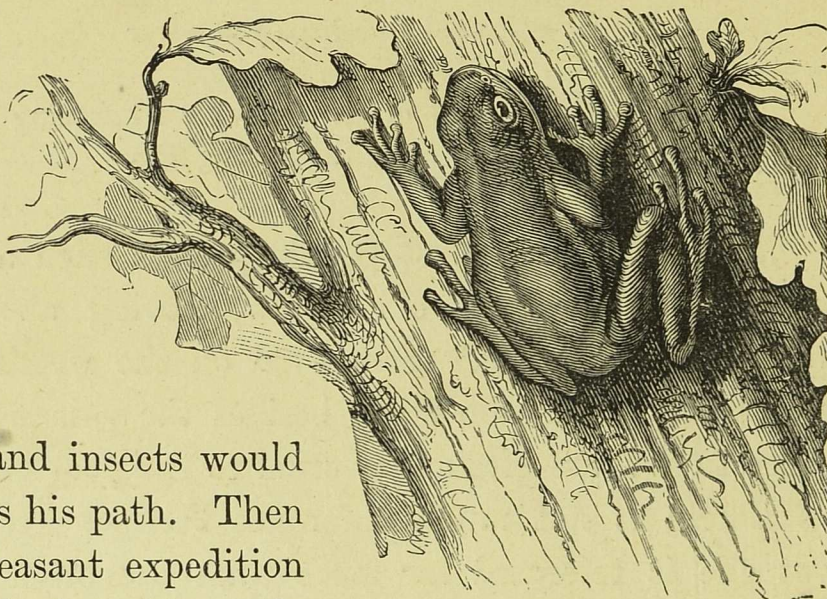
There is not much difference between a toad and a frog, yet one is tolerated far more than the other ; certainly poor Toadie has no teeth, has stouter hind legs, and so is more clumsy, and has little bumps on the skin. No one wants to eat him, and if a dog catches him up by mistake, he soon leaves go, growling with disgust, because of some nasty taste in these bumps. Some people call it venom, but then they need not touch it, and it is the only means of defence the little creature has. So I do not think he ought to be reproached, but allowed to hurry out of our way, as he is most ready to do, for he has no love for mankind. He, too, was once an innocent tadpole, frisking about the pool ; until, growing older, he one day forsook the green waters, and sought out some crevice in the rocks, or a nice snug, damp, out-of-the-way corner among the stumps and stones. Maybe he had to dig a home with his mouth and paws. He retired into it, and lived a penitent, retired, sad sort of life, solemnly snapping at whatever heedless flies or insects came in the way of that long tongue, and seldom venturing to leave his retreat, except when tempted out by the soft, warm moisture of a summer night's shower, when

he knew that the grass and mosses would be pleasantly damp, and filled with venture-some slugs and snails, and that

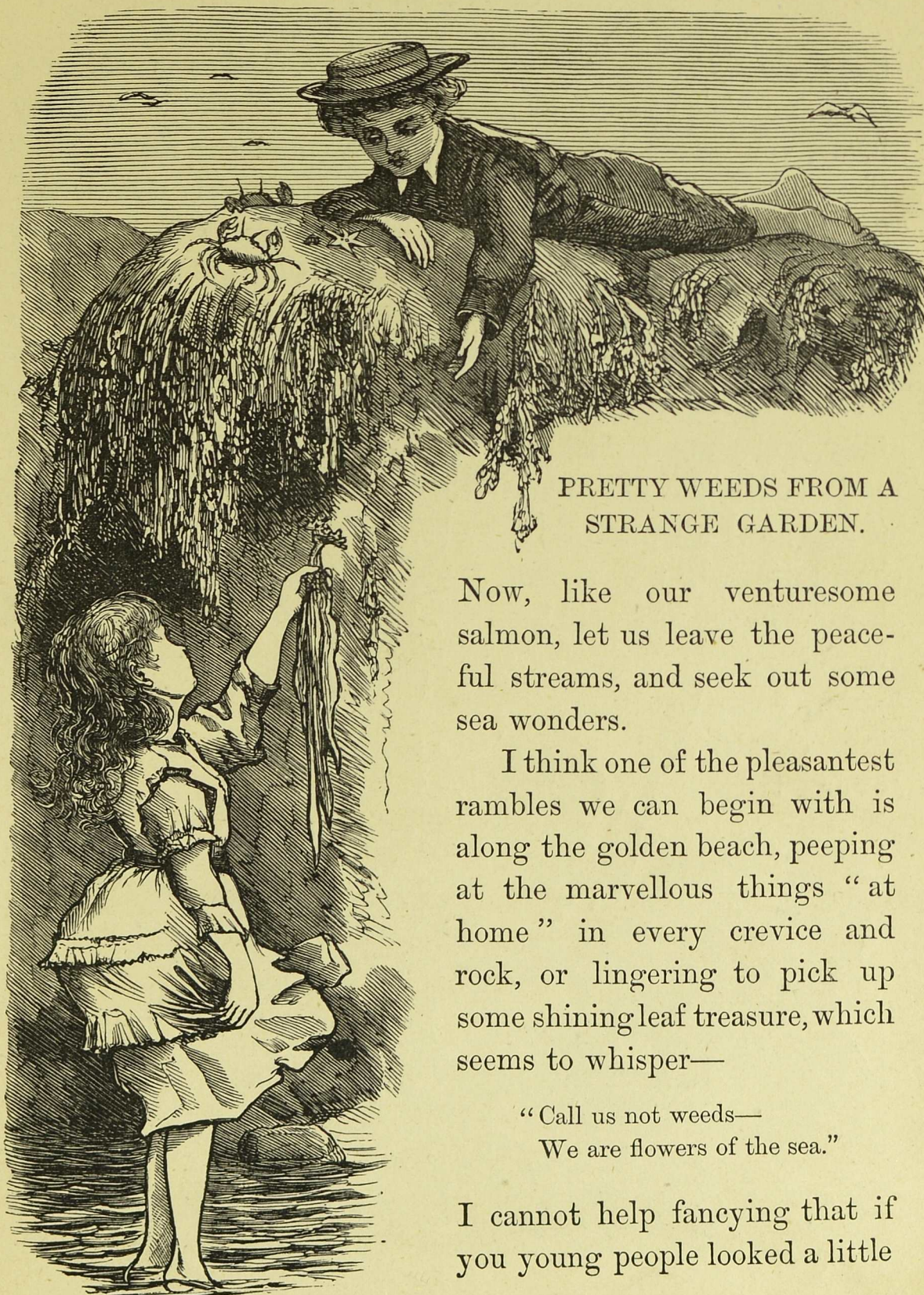
tender worms and insects would most likely cross his path. Then after such a pleasant expedition he would stroll back to his castle under the stones, where inquisi-

tive eyes might see him change his coat now and then—not throwing it away when done with, mind, but rolling it up neatly and swallowing it like a pill, as my old pets the newts. This is what I call economy. Don't you?

The toads “at home” in England are not above four inches long, but in the hot ferny countries of Europe they are as large as crabs; and I dare not say how ugly you would call them if I ventured to show you one. There are green tree-frogs in Southern Europe, with such peculiar feet that they can hang on to branches and hide under leaves, watching for any unwary insect that darts by.



GREEN TREE-FROG.



PRETTY WEEDS FROM A
STRANGE GARDEN.

Now, like our venturesome salmon, let us leave the peaceful streams, and seek out some sea wonders.

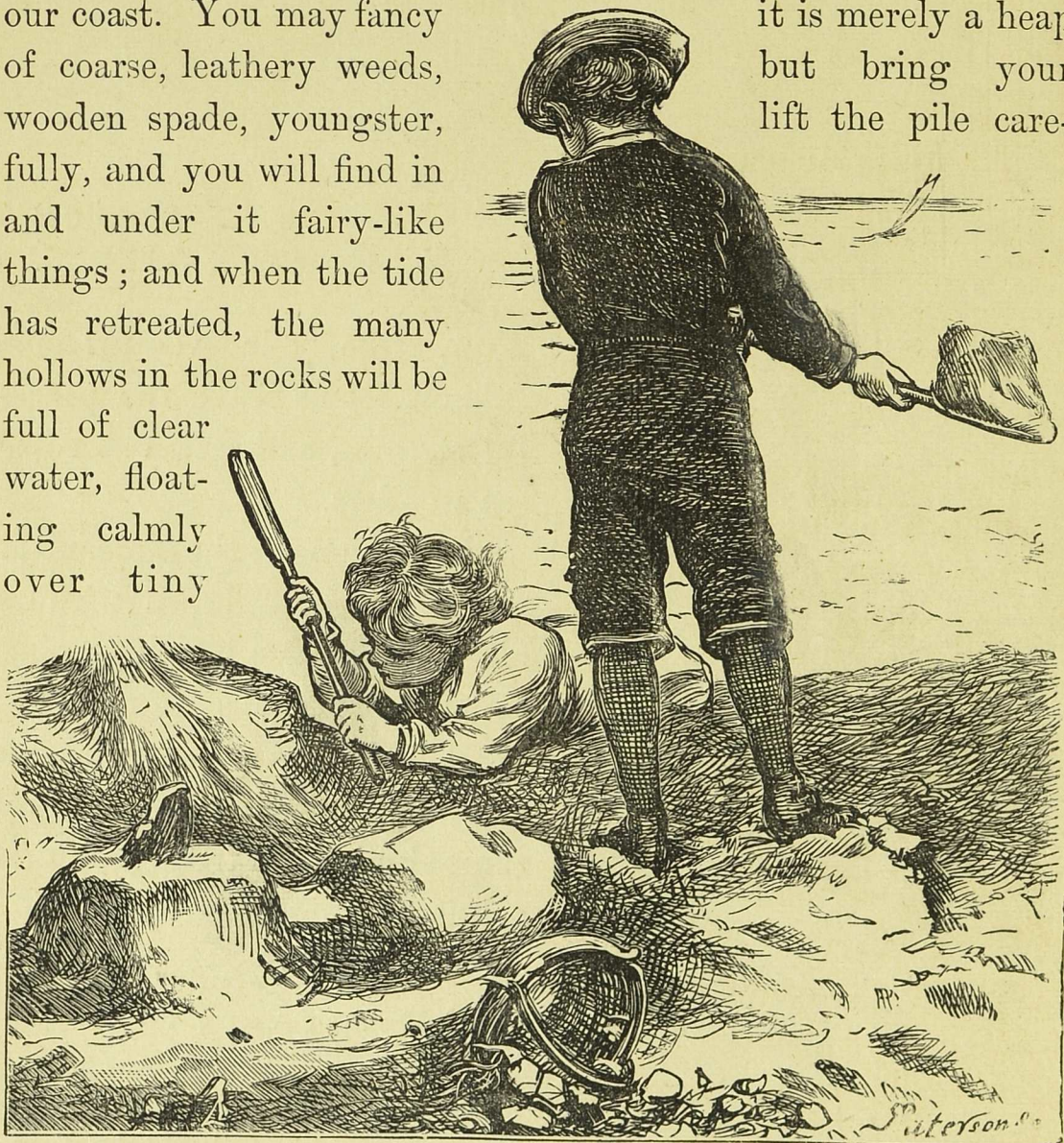
I think one of the pleasantest rambles we can begin with is along the golden beach, peeping at the marvellous things "at home" in every crevice and rock, or lingering to pick up some shining leaf treasure, which seems to whisper—

"Call us not weeds—
We are flowers of the sea."

I cannot help fancying that if you young people looked a little

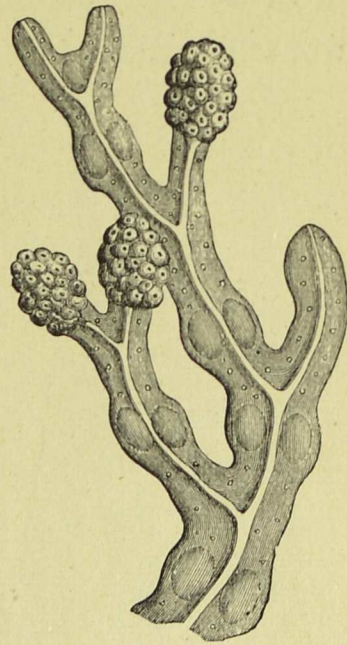
more closely at the glistening shingle, and the soft sea sands, on which you frolic about during your pleasant holiday hours, you would be interested, amused, and surprised at the thousand and one wonders that would reveal themselves. See, here is the ebb of the tide, which leaves a long line of creamy foam, and a bright ring of red and gold to encircle our coast. You may fancy of coarse, leathery weeds, wooden spade, youngster, fully, and you will find in and under it fairy-like things; and when the tide has retreated, the many hollows in the rocks will be full of clear water, floating calmly over tiny

it is merely a heap
but bring your
lift the pile care-



forests of purple, green, and scarlet leaves, waving softly among bright and beautiful flowers, all in full bloom in these gardens of the sea; flowers as beautiful and almost more wonderful than the roses and lilies that blossom sweet and fair in the sunshine; all things about reminding us that "each moss, each shell, each crawling insect, holds a rank important in the scale of Him who framed this scale of beings," a truth we should never forget while we marvel.

There are so many varieties of weed, that I cannot attempt to tell you much about them. Of course you know that this big, common, leathery kind is called Bladder-wrack, and that it goes "Pop! pop!" if you squeeze its brown pods. Some of you may have met with an uncomfortable tumble on to your knees and nose, when paddling barefooted over the big stones hidden beneath its long, shining, slippery leaves clinging so closely to them. This "wrack" sometimes finds its way to far-off inland towns, for it is used, placed in layers, to pack up fish, or lively crabs and lobsters, tucking them in comfortably till landed in our fish-mongers' shops. This kind has many names and many uses—"Sea-wave," "Kelp-wave," and even "Our Lady's wrack"—because of the good service it does the small Irish farmer, who makes it up as manure. In the coast villages of Ireland stacks are piled, to make the ground good for potatoes; and dried, it serves to thatch the mud cabins of the poor peasants. I think



THE BLADDER-WRACK.

the greatest weed-harvest is in Jersey and Guernsey, where the "vraicking" time is fixed by law. A strange sight, these sturdy, brown-faced men present as, their reaping-hook in hand, and their legs well protected by strong shields of leather, they wade far out to sea, to cut down the leathery brown weed collected on the rocks. This, busy lads and women gather up and rake into carts, to be carried beyond

tide-mark, and laid out to dry.

A busy, noisy time, for chattering boys and girls are helping, rushing here and there with "bings," or baskets, which they fill, till the returning tide drives them all back before it, when the party console themselves by eating vraicking cakes, made of dough, milk, sugar, and currants, and singing their simple vraicking songs, while they fill their carts with the sea spoil. And so ends the sea-harvest for the day.

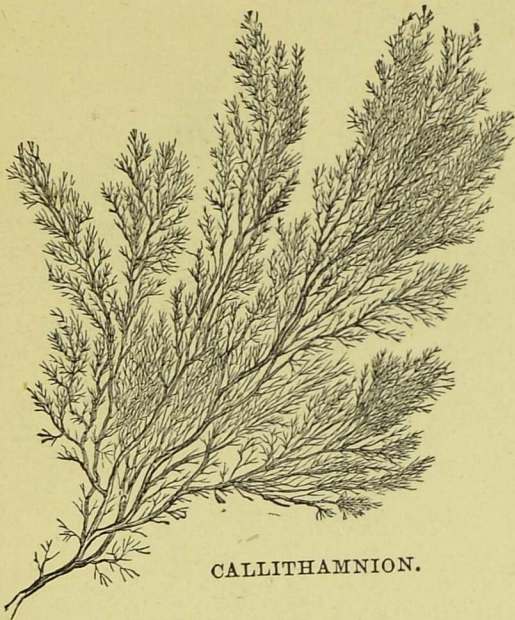
Though some of these leaves are as much as you can lift, others can lie lacelike on your finger: yet how strong they are—

"Mark well yon seaweed, rooted on the rock,

The madden'd surge assails its fragile form ;



ALARIA.



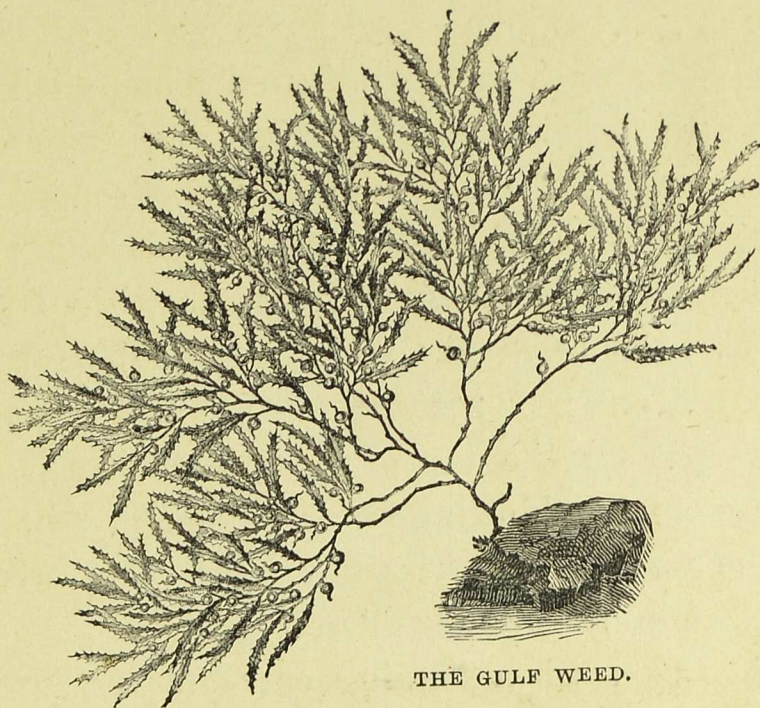
CALLITHAMNION.

And yet it moves not, clinging with
small hands,
An emblem flower, methinks, of stead-
fast ones
Who dwell in peace amid earth's wild
turmoils."

But although old ocean does
hold such lovely plants and
flowers, they differ from those
on shore, for they possess no
true leaves, and they have no
real roots. Though many cling
hard and fast by rock and stone;

it is only because they are held there by a sticky substance, so
that they take no nourishment from the spot from which
they appear to grow and flourish.

Perhaps you
would like to
gather some of
these pretty weeds
crowding on the
golden sands, and
spend some little
time at home in
admiring their
beauties; or even
in preserving them
in a weed-book,
which during the
cosy winter even-



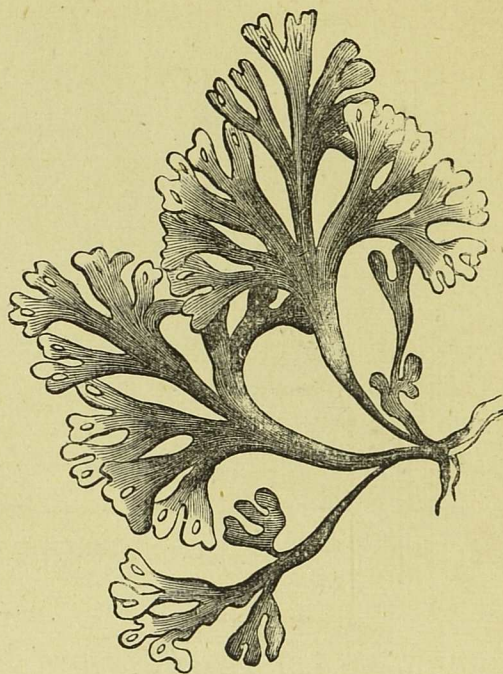
THE GULF WEED.

ings may afford pleasure to many, and serve you as a reminder of some happy hours. If so, take a few hints, my little collectors, and do not think them altogether out of place in a book about "odd folks."

Bring with you a tin box, can, or an oil-skin bag, if you can get one, for in the hot clutch of eager hands our pretty sea-flowers will fade as soon as a gardener's bouquet, or a bunch of wild flowers from the lane, would do.

And when you return home with a chosen tangle of scarlet and green, get a piece of alum and a paint-brush or two; then, having filled a plate with water, set to work at once dissecting your prizes, floating each piece in water till all the sand has dropped; then lay it on a square of stiff paper and pick it out with a long needle, until it looks pretty and natural; then let all the water drain off. But before the paper is quite dry lay it between blotting-paper, and that between the pages of some old book, placing a weight on the top of it, and leaving it till next day; then change this blotting-paper for some fresh. Put it again under the weight, and in a few hours your weed will be ready to place in a sea-flower album.

Often when turning over sea treasures you will pick up queer things you may be puzzled to name—one a broad brown



THE CARRAGHEEN OR IRISH MOSS.

bag, with long twisting tendrils still twining about the weeds where it was fastened for security. Seamen call these "mer-

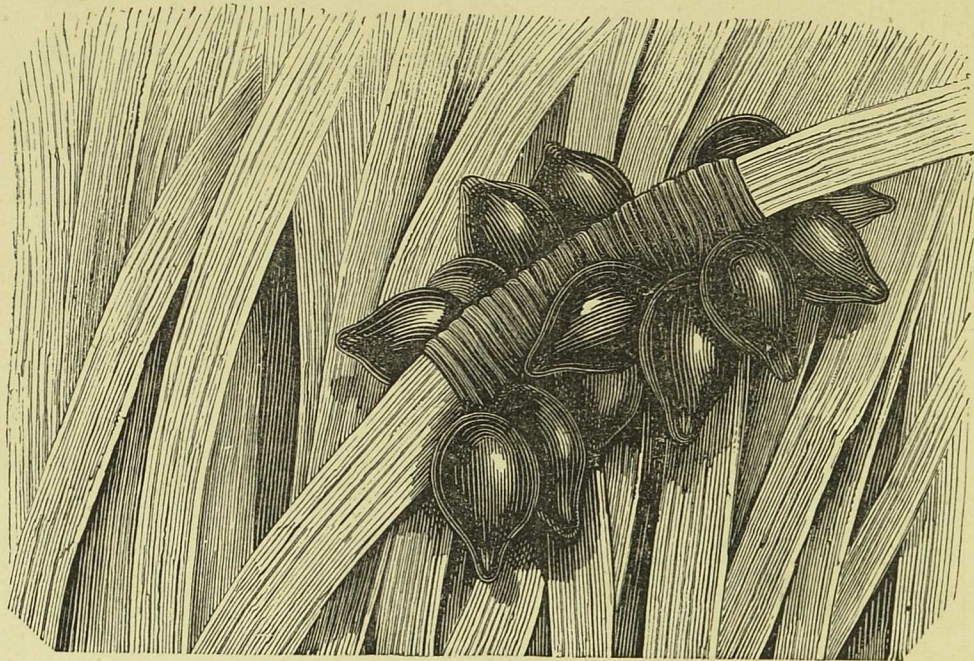


MERMAIDS' PURSES.

maids' purses," although they have only held the eggs of a kind of dog-fish. Another leathery bag, known as the "Skate Carrier," was the covering of a calf skate, and even the big bunch of "sea grapes" only held a mass of young cuttle fish,

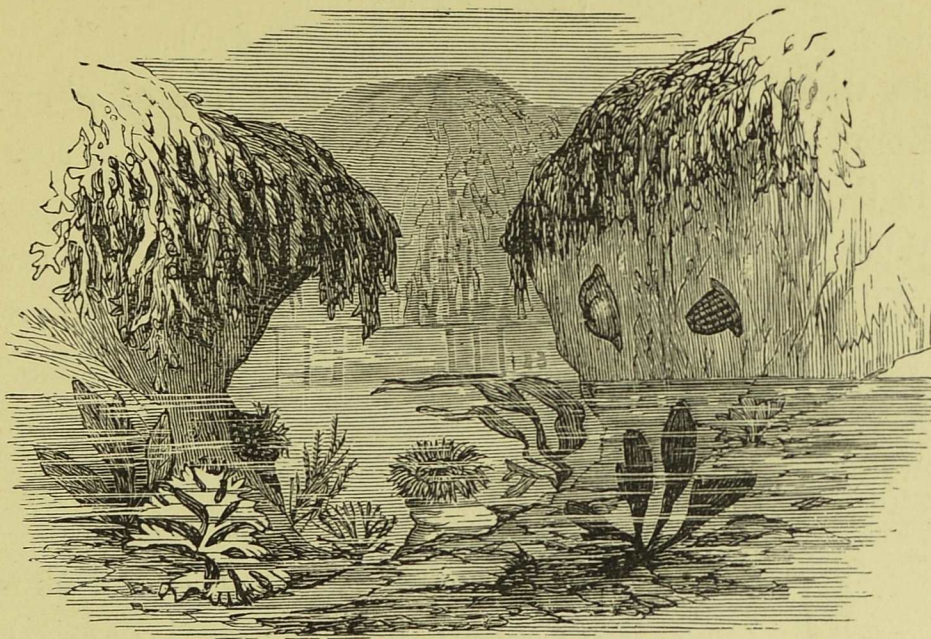
as you might have seen in the early spring. Now they are all dry, or full of sand and pebbles.

You will find the largest accumulation of marine plants in the hollows and excavations of flat rocks, not too much exposed to the pressure of the waves. But even on sandy



SEA GRAPES.

coasts large submarine meadows are often found ; for instance, the Grass-wrack, the only flower-bearing plant of the German Ocean, attaches its long, trailing stalk to loose sand and pebbles. Its long, green, grassy leaves afford food and protection to countless tiny creatures. In the tropical seas this sea-grass is eaten by turtles ; and I am told that it is much used in the manufacture of cheap mattresses.



ANEMONES, JELLY-FISH, AND BARNACLES.

I WISH that, instead of merely telling you about Sea Anemones, I could give you a peep on the still surface of some little pools I know of about our coast—dainty gardens of the sea—looking at first sight as though a rainbow had fallen and been broken to pieces in their cool depths, so bright are the colours they reflect all round.



THE SEA CARNATION.

Yet I am afraid you might grumble at the rough roads I should lead you, for to reach them you must clamber over steep, slippery rocks, covered and hidden by streaming brown weeds and patches of crimson dulse, even getting a good wetting now and then from some stray wavelet; for we should have to go at

low tide, when the sea lies far out, a hazy line of glory, and the distant shadow of coast opposite looks like a soft blue cloud in the sky.

My pet nooks are really sea-fairies' grottoes ; they must be that. All their walls are studded with these large, brilliant sea-flowers of purple, rose-colour, and gold, all blooming brightly, yet generally motionless as the garden where they flourish.



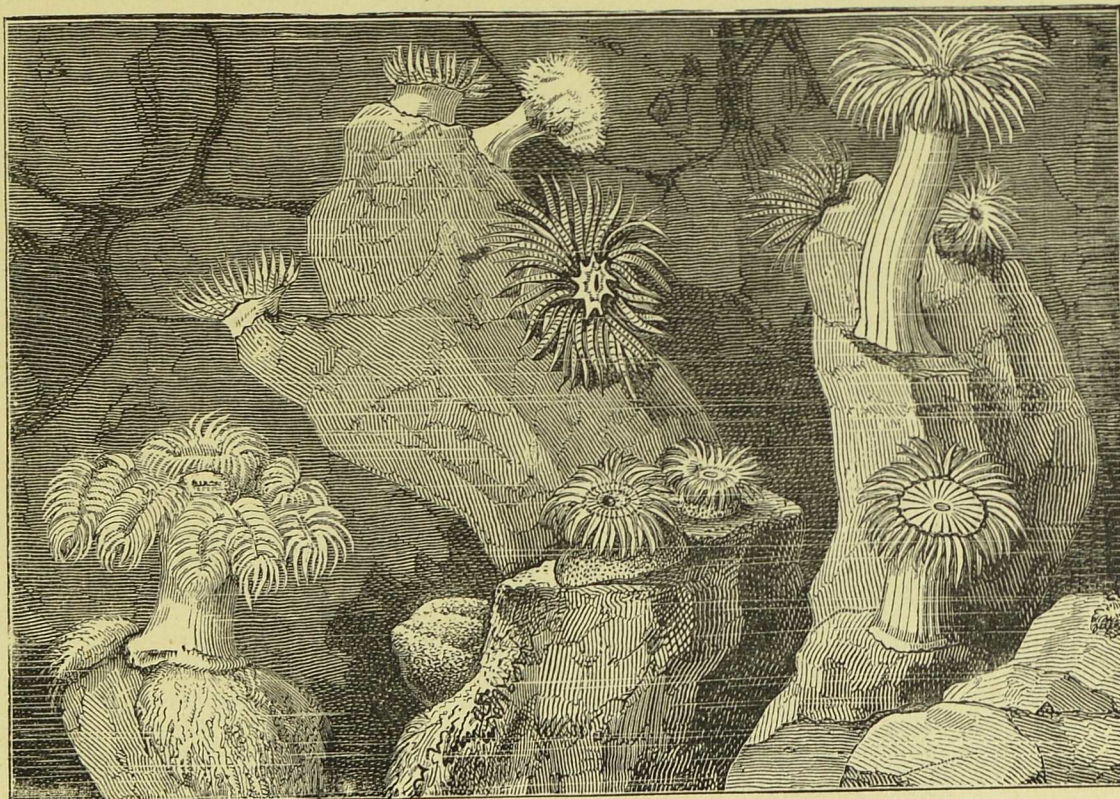
AWAKE AND READY.

At other times the whole of these blossoms are stretching out a thousand lively petals, for my beauties are hungry, and feeling for food. Woe betide any small creature—a fly, for instance—that comes within reach of those sensitive arms, or feelers. It will soon be grasped and devoured by some delicate-looking “Anthozoa,” or living flowers, which will tuck themselves up round the unlucky morsel, and never unfold until they have finished the meal ; and they have a capital appetite. One fellow was seen to swallow a limpet, and two snail-crabs as big round as a penny piece, before it ceased waving its arms for more.

Yet, when it shuts up, our pretty Anemone looks like an ugly mass of reddish-brown jelly.

But see, here is one open, and at its best. The central little blossom represents its mouth, opening into a kind of bag, into which the creature drops its food, which will pass from that and nourish all its body. If you catch an Anemone asleep or closed you will think him but an ugly fellow—a mere dingy

lump—for all his beauty will be drawn in and safely stowed out of sight. If you live anywhere near the shore, or are staying at the seaside, I would advise you to collect and keep a few of these Anemones. You will find it most amusing ;



A SEA GARDEN IN BLOOM.

only be careful how you capture the poor fellows, and be sure not to hurt them in getting them off the rocks, where they love to nestle.

To the right of this picture are some specimens of the Daisy Anemone, very much at home on the coasts of Devon and Cornwall, whose family name of *Sagartia* reminds us of an old story told by Herodotus, who says that in

the army of Xerxes there was a race of warriors called "Sagartians," from their peculiar mode of fighting. When they engaged an enemy, they flung out a rope with a noose



SERTULARIA.

at the end. Anything a Sagartian caught, whether horse or man, was dragged towards himself, and those entangled in the coils were speedily put to death. Now the Daisy Anemone is something like this; it can throw out a single long arm, or "tentacle," and entangle and hold its prey fast to the death.

Remember, little readers, that if you would enjoy watching sea-wonders at home, it is not necessary to have a regular aquarium. A common glass bowl, or jar, with a flat bottom, filled with sea-water, a few stones, and floating bits of sea-weed is all you need. But you must

not forget to change the water often. If you would keep your Anemones healthy, feed them on bits of oysters, mussels, or cockles, and watch how eagerly they catch the food between their feelers, carry it to their mouths, and absorb it you cannot tell how. There are many creatures about the coast formed on the same plan as the Sea Anemones. The pretty, strange Sertularias are often found on sea-weed, that when cast up looks like a broken twig, but in reality is made up of living beings.

The Jelly Fish lie about our shores in great numbers, and float about in all seas. They are not fish at all, but, I suppose, are called so because they are like jelly and live in the ocean. Some of these helpless-looking creatures are very undesirable to meet

with in the waters, as they can sting like nettles, especially the foreign ones. I heard of a traveller in Mexico having a very unpleasant adventure with one in a place where Jelly Fish abounded. This Englishman, who had little idea of the power of a Mexican sun on a white skin and a bald head, was bathing in the bay, and feeling a roasting sensation about the face and shoulders, he seized upon a something cool



A JELLY FISH FROM THE ENGLISH CHANNEL.

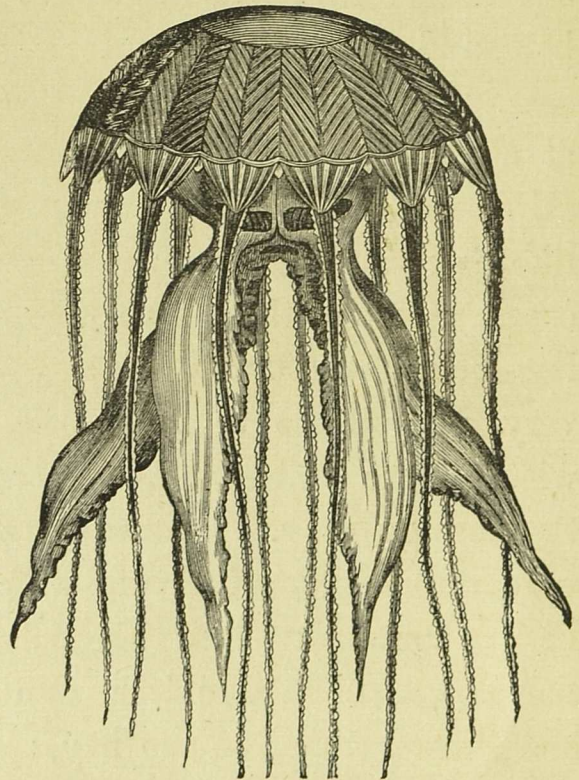


THE CROSS MEDUSA.

these "Medusæ" are mostly like very beautiful filmy mushrooms, or fairy umbrellas. When they are tossed on to the shore they soon dissolve and go to nothing, as a lump of ice might do, yet some of the larger kind weigh eight or ten pounds; the common *Lizzia*, however, found about the coast of Greenland are so very small that 3,000 could lie in a wine-glassful of water. There are many varieties of the family, but I must linger to point out

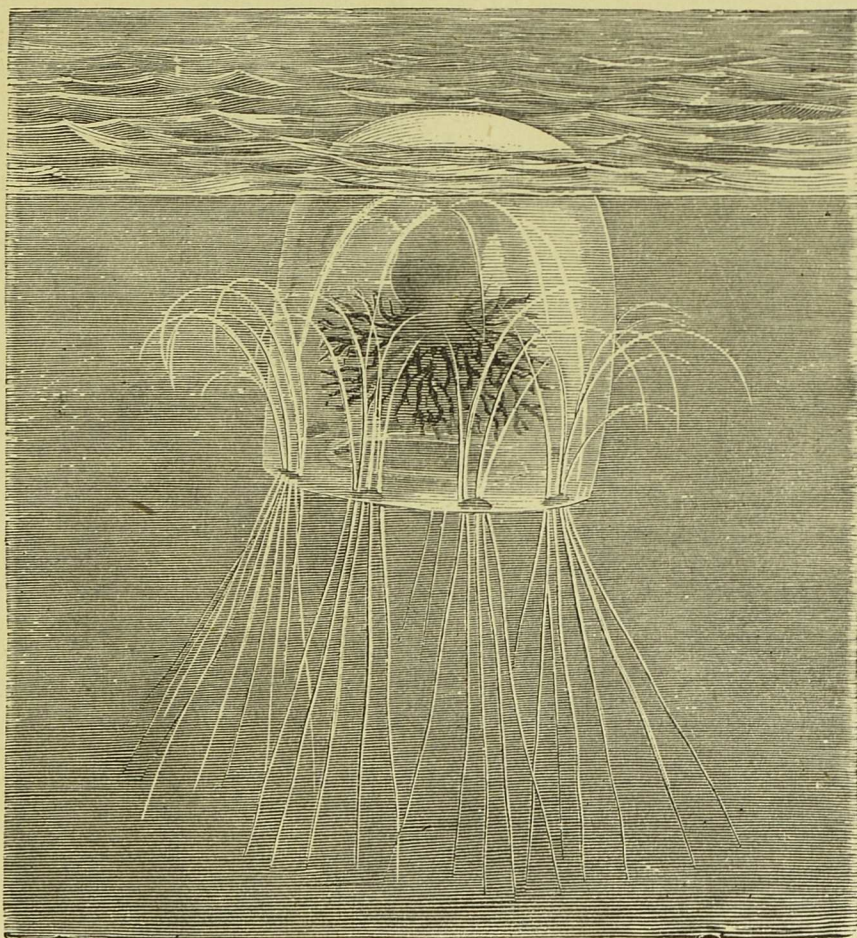
and soft and tempting that was floating past, and rubbed himself over with it as with a sponge. The poor fellow had cause to remember his mistake, for he was terribly blistered, and almost driven mad by the irritation and pain wherever the poisonous "Jelly" had touched his skin.

When they are afloat,



THE MEDUSA OF GAUDICHAUD.

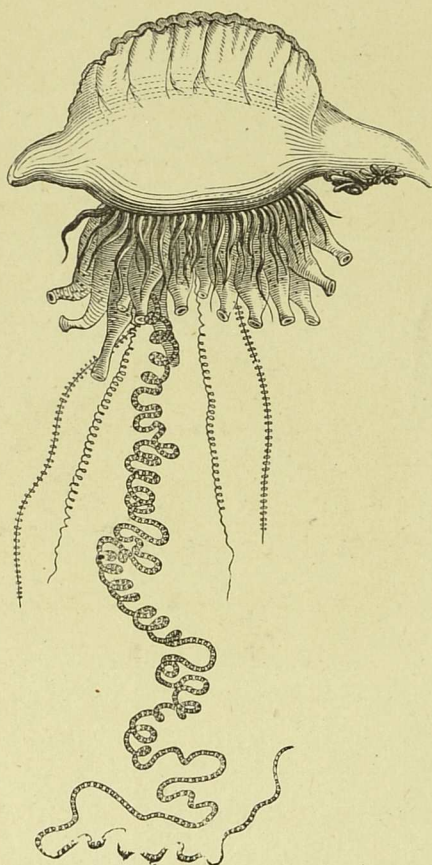
the Girdle of Venus, a long flat, transparent ribbon jelly, fringed with a double row of cilia or hair-like feelers. At night, we are told, it resembles a wavy belt of fire as it winds its way



THE LIZZIA (MAGNIFIED).

through the waters. Another odd member of the "Medusæ," found in large groups in the tropic seas, is the Physalia, or as our sailors call it, the Portuguese Man-of-War, because they say it is like a small ship as it floats along. Its body is a large pear-shaped air-bladder, tinted with the brightest red, green, or crimson, and surmounted by a fringed purple crest or sail.

Depending from it are a great cluster of feelers of all kinds and lengths. Some can be shot out and twined round the body of any small creature below, which it makes helpless



PHYSALIA.

by a kind of electric shock, then dragging it up to the shorter suckers, soon disposes of and makes a hearty meal off the captive. Yet how strange when we remember that it is a "Jelly" Fish, and has no visible tongue, or teeth, or even stomach. Do not touch it, or you will get a sting that you certainly will not like. It is to this habit that its kind owes the scientific name of "Acalephe," the Greek for nettle.

Meyen, during the first voyage of the *Princess Louise* round the world, saw a splendid *Physalia* passing by the ship, and a bold, active sailor flung off his clothes and jumped into the sea to secure it for him.

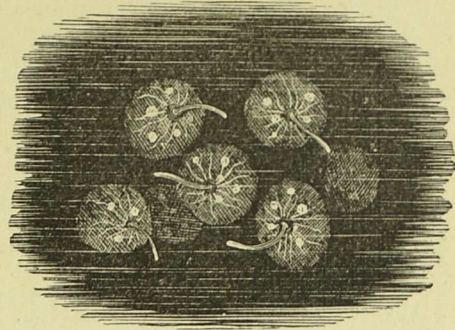
Swimming swiftly, he soon seized hold of it, but in an instant it had wrapped and entangled its captor in those sting-like filaments, which were almost a yard long. The poor young fellow was in such pain that he became helpless, and called aloud for aid. He was with difficulty dragged on board, and almost died of brain-fever, brought on by pain and fright.

After that we can believe that a *Physalia* of the size of

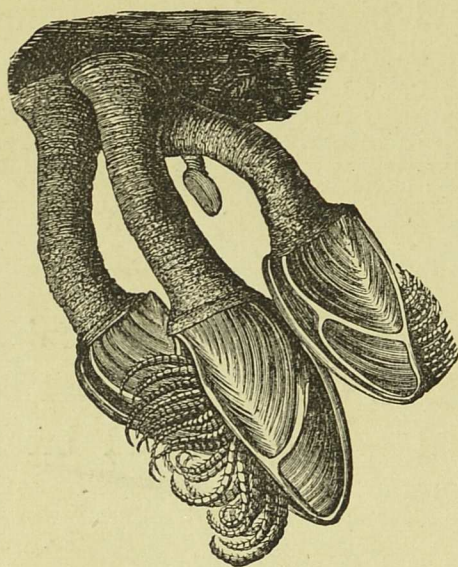
a walnut can kill a fish stronger and bigger than a herring, so I think we need not wish to meddle with

“Those living jellies which the flesh inflame,
Fierce as a nettle, and from that their name ;
Some in huge masses, some that you may bring
Within the compass of a lady's ring.”

Sometimes, in very hot weather, when the evening shadows close over the sea, it appears to light up and be on fire; the waves seem burnished with gold, and break upon the shore, fringing it with light; and if we were to row out in a boat, its sides would seem to be aflame, and the oars to stream with this same wondrous brightness, which lights up every pebble and rock which the spray touches. This astonishing effect is mostly caused by the tiniest of tiniest creatures, fifty thousand of which could frolic in a glass of sea-water. See, they look like little bobs of transparent jelly, though if you put one under a microscope—that “sixth sense,” as it has been called—you will see that it has a real mouth and a little feeler, like the stalk of an apple. Its scientific name is “Noctiluca,” that is, as we should say, night-light. There is another kind that only shines enough to make the waters white, or silvery, in which state the Dutch sailors call it the *milky sea*, or *snow sea*. There are other “water glowworms;” and even some marine plants help in this beautiful illumination, which is said in tropical countries, where it is much more



NOCTILUCA MILIARIS.



BARNACLES.

intense than in Europe, to be a splendid and dazzling sight.

As we go, at half-tide, poking about the rocks and staring at the mussels, and limpets, and tangle of wonders, we may notice some tiny-like clusters of whitish shells sticking fast to everything, and by no means beautiful or wonderful to look at; but put them into sea-water, or wait till the return of the tide, and you will see that each tiny tent shelters a living

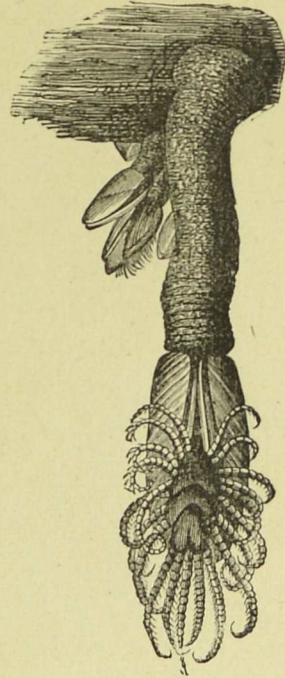
fish. I suppose I may so call that creature, which, as though it knew its opportunity was limited, opens its sharp shells, and throws out a thousand horny arms, separated into numerous joints, each joint covered with long stiff hairs which stand out boldly, so forming a network of hairs through which only the smallest substance can pass. This serves to capture the insects that serve the Balani for food.

These Balani—"Acorn Shells" some call them—are nearly related to the Ship Barnacles, found clinging to the bottoms and keels of vessels in such numbers as to interfere with their progress, clustering on thick pieces of wreck or floating spars.

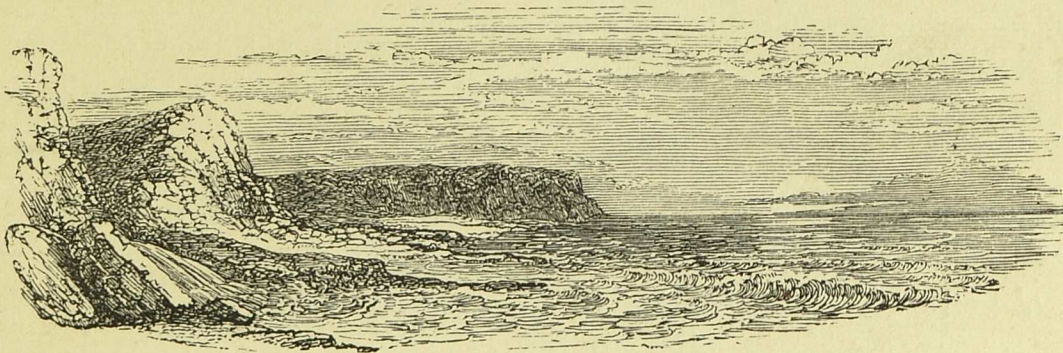
Mr. Buckland says that a stick thrown ashore covered with Goose Barnacles, was secured for the Brighton Aquarium; and it is truly a wonderful sight to see the shells of the Barnacles on it wide open, and the curious fan-like feelers of the animals within, working incessantly, grasping at the water. I suppose

they grasp something, or they would not work so hard. There is a bottle floating in the Barnacle tank, with a crowd of Barnacles attached to it. Perhaps this bottle once contained a "message from the sea," written by some poor fellow who found the ship sinking under him in mid-Atlantic. The message perished, most likely, but the Barnacles clung to the bottle, and very pretty objects they are to look at, and very curious too.

Some Whiting were formerly placed in this same tank, but they came round the Barnacles and bit off their feelers, one by one, as they ventured them out, so the visitors had to be taken away; but some Shrimps that remained must also have been very troublesome neighbours to the poor Barnacles, at whose feelers they were continually nipping most ravenously.



BARNACLE.





"A LITTLE WREATH OF SEA-BORN FLOWERS."

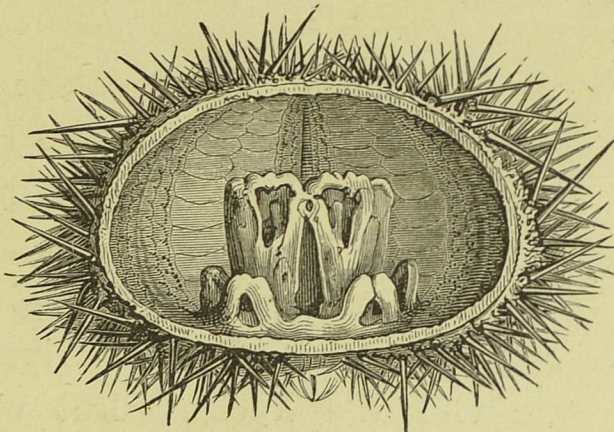


SEA URCHINS AND SEA CUCUMBERS.

UNDOUBTEDLY among the most interesting of creatures are the Sea Urchins. I do not mean only the rosy-cheeked children belonging to the sailors hereabout—though I am sure the name suits them well enough—but purple-shaded, cup-shaped, surface-knobbed Urchins, like these. They do not look like living things, do they? But we will cut one shell right through, and then see. Here is my gentleman at

home ; in the centre of the bottom of the shell are his five strong teeth, as white as ivory ; the jaws are inside the shell, and though you might think him too small and weak for anything al-

Urchin can small crabs fish, if they way. How hold of these ask ; a help-shut up in a cannot even about. Ah, move, and

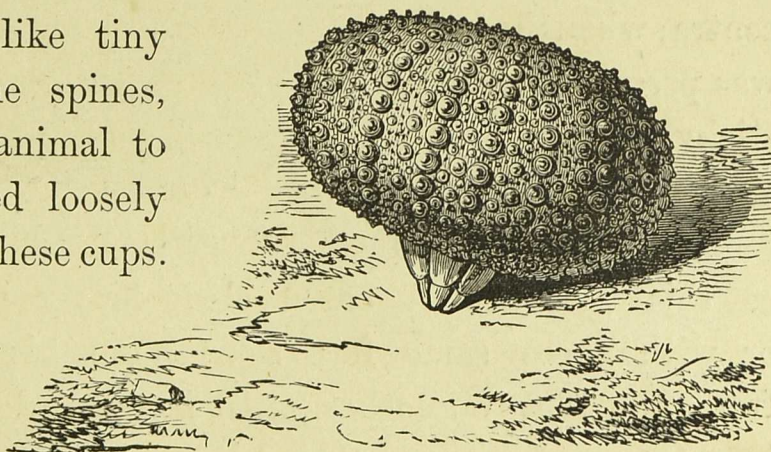


SECTION OF SEA-URCHIN (ECHINUS LIVIDUS).

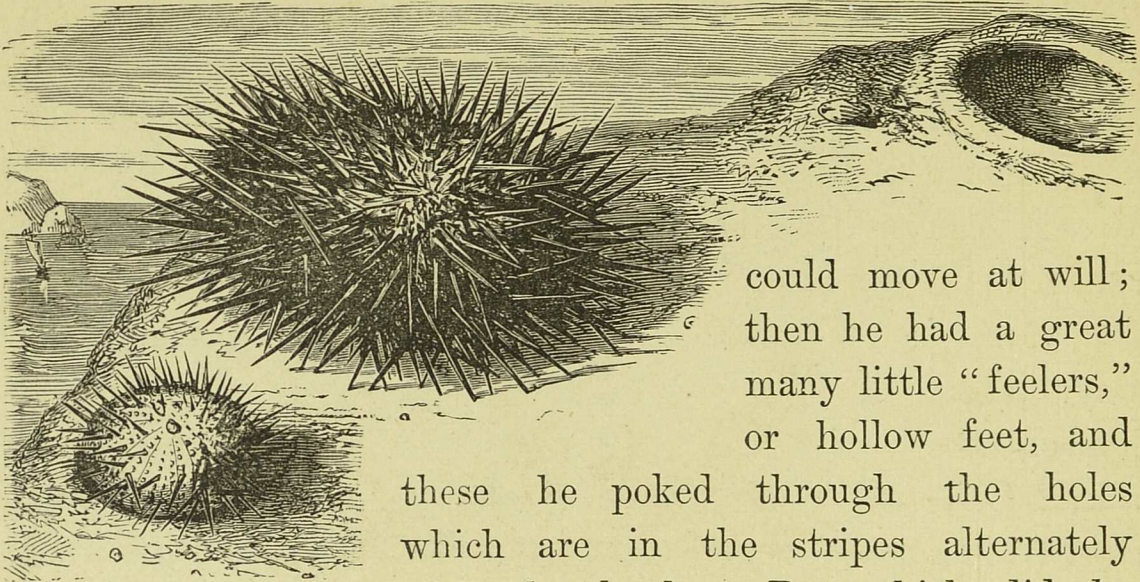
most, this crush and eat and shell-come in his *does* he get things ? you less thing, box, that move itself but it can you are mis-

taken. You may chance to meet it, slowly rolling along the sands ; but here is an empty one, with the spines washed off. On the side of the shell that we see, there are twenty stripes, ten of which are covered with little knobs, while the other ten are dotted with small holes. These little knobs on the ten stripes of the shell are all hollow inside, like tiny round teacups ; the spines, which helped the animal to move, were fastened loosely like threads inside these cups.

Every one of these knobs had one of these loose spines, which the Urchin

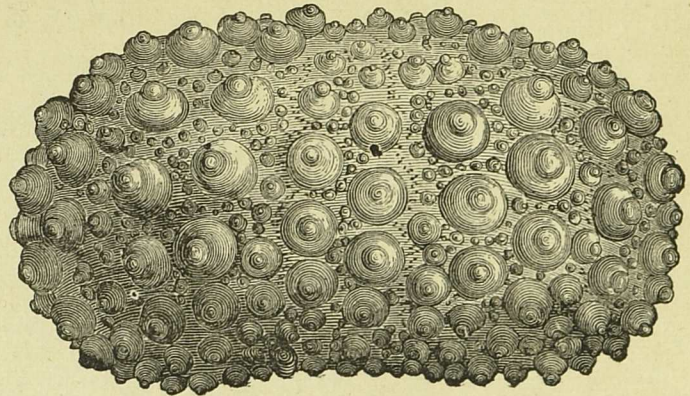


SEA-URCHIN (ECHINUS LIVIDUS) WITH SPINES REMOVED.



SEA URCHINS.

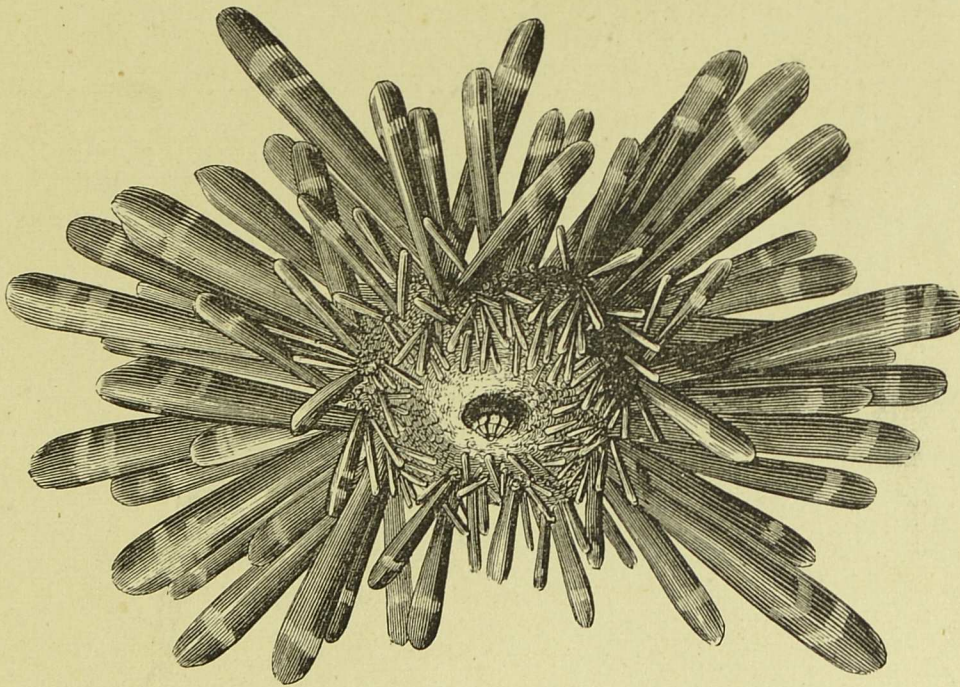
could move at will; then he had a great many little "feelers," or hollow feet, and these he poked through the holes which are in the stripes alternately with the knobs. But which did he move about with most, you wonder? When taken from the water, he moved only his spines; but when in the water he seemed to go from place to place by means of his feelers alone. Peeping at these feelers through a microscope, each feeler could be seen to be hollow, and each had, at its end, a little foot with a hole in its centre; when the feeler was pressed, a drop of sticky, gummy substance came into each hole, and by means of this the Urchin could stick firmly wherever he chose, or with these same feet seize upon his prey, and pass it from one foot to another, until it reached those five big white teeth, that very soon gobbled it up, for he was hungry.



ECHINUS MAMILLATUS WITH THE SPINES REMOVED.

A very clever man, thinking, I daresay, that nothing God's hand had fashioned was so small or insignificant as to be unworthy notice, once set to work to study the ways and means of the Sea Urchin at home.

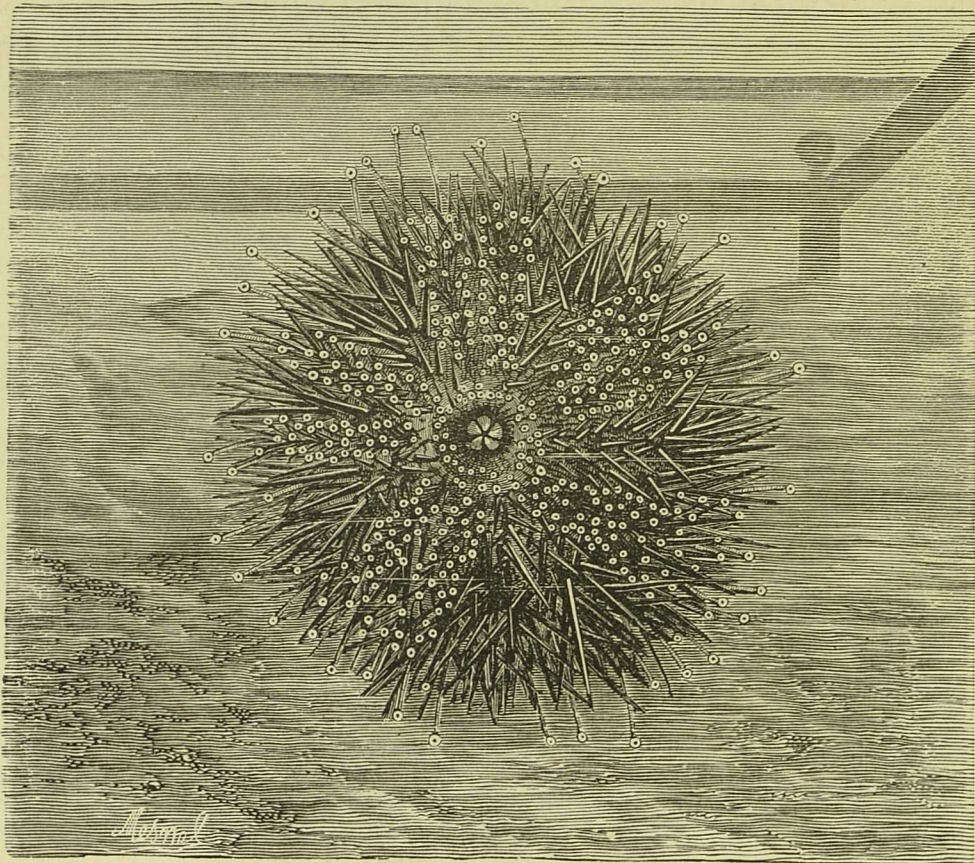
He asked the coral fishermen, working about the Greek islands, to get him some, which he put in a bucket filled with



ECHINUS MAMILLATUS.

sea-water, and he soon noticed that though the bucket was tossing about with the roll of the boat, and made an uncomfortable bed for the poor captive Urchins, they all clambered from the bottom to the top of the bucket, where they remained fixed to one place somehow, by means of their feet; so that taught him that the feet were not only used to fasten themselves, but to climb and move about with. Wishing to learn a little more, he took them from their places (though they held on tightly

enough), and put them in a glass jar. In the sea their usual position is mouth downwards, so he put one mouth up, to see what it would do. It soon seemed angry and uncomfortable, then threw out a great many feelers on one side of the jar, and

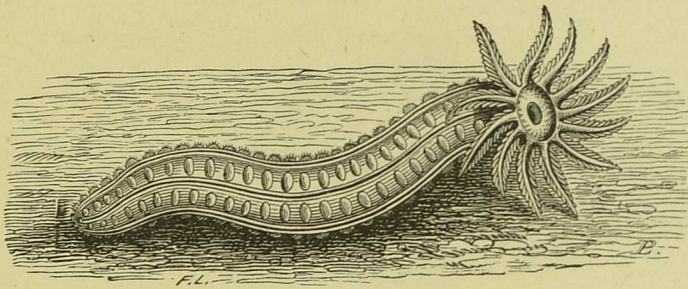


AN URCHIN CLIMBING UP THE SIDE OF AN AQUARIUM.

holding tight, raised itself a little way, then threw out more feelers on the same side, letting go the others, and so turned a little farther. It repeated this performance till at last it came mouth-side down, and was all right and comfortable.

As to the others, they had all travelled quickly up the side of the jar, and fixed themselves there. So you see, they are not quite so helpless as you might fancy from their appearance.

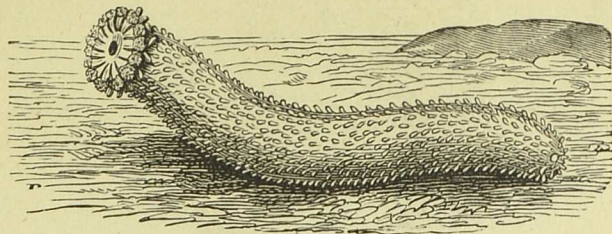
Our English Urchins have some foreign cousins—the Sea Cucumbers, Trepangs, or Holothurias—comical creatures, with leathery skins, all covered with little hooks, by which they can



A SEA CUCUMBER.

hold on to things, though it is difficult to lay a hold on them; for a Sea Cucumber, if caught, can turn itself inside out, and become a kind of empty bag; or it can

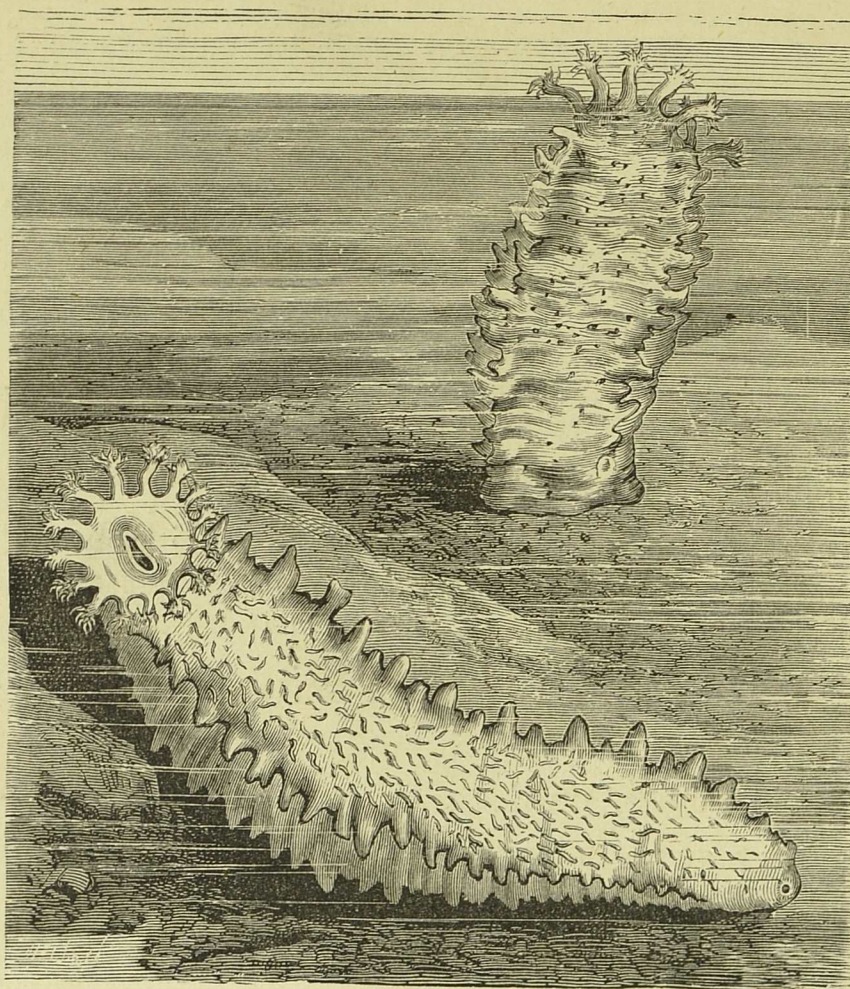
divide itself into two parts, the extremities becoming enlarged as the centre dwindles away, almost to a thread. Then it snaps in two, looking like a dead thing—but no; if not molested, the two ends form, and grow into two distinct and healthy Holothurias. Some people have placed these creatures in sea-water tanks, and watched them. Soon they pined and grew less and less, dropping portions of their bodies, until at last nothing was left but the round floweret-like head; yet still they lived, and fed, and again grew quite perfect.



A SEA CUCUMBER.

When European fishers find these odd folks in their nets, they fling them back into the sea; yet the large kind at home in the Mediterranean are sold and eaten at Naples; and thousands of Chinese and Malays are employed in fishing for them. The Malays show especial dexterity at this work; lying down in the fore-part of their quaintly-shaped proas, and holding a long

bamboo with a sharp hook on one end, they watch patiently until they catch sight of a Cucumber creeping among the rocks and corals below, then down goes the harpoon, and that wanderer



TREPANGS.

is surely transfixed, brought up, and prepared for the market—that is, they are boiled, and flattened with stones, then spread out on bamboo mats to dry in the sun, then smoked, enclosed in sacks, and sent off to the Chinese ports, where they fetch a good price as a dainty dish for Sir Chinaman.



MALAYS FISHING FOR SEA CUCUMBERS.



ST. DOMINGO.

CRABS AND THEIR RELATIONS.

“The shelly crawlers, each returning year,
Cast off their coats, and new-made armour wear.”

BEFORE telling you a few strange facts about Crabs and their cousins the Lobsters and Shrimps, I must treat you to a story.

What! a story about Crabs! whatever can I find to tell about such stupid things? you wonder. Well, listen, for it is one that is firmly believed in by the people of St. Domingo, one of the West India Islands.

A great many years ago, the English Government determined to take this city from the Spaniards who held it, and sent ships and troops with directions to effect a landing, and get possession of the citadel. This was more easily said than done. The Spaniards kept their own bravely; the place was

well fortified, and though there was plenty of fighting, the English commander found it impossible to obey orders.

At length a brilliant idea struck him; he would land a large body of soldiers at the dead of night, when all was dark and still. Well armed and unexpected, the brave fellows should silence the sentinels, surprise the garrison, and soon take the town by assault.

Armed to the teeth, they rowed the ships' boats through the black shadows of night, and landing as noiselessly as possible, prepared to advance as best they might, when suddenly they were startled by a strange sound, a subdued, Sh! sh! a rustling clatter, as of a great crowd in the distance. No doubt the garrison was alarmed and the whole town advancing to crush them. They at once returned to their boats, and retired in all haste to the ships, to report the narrow escape they had had from the enraged and watchful enemy.

But what was their disgust and shame when they soon afterwards discovered that the noises that had so alarmed all these brave men were caused by the large Land Crabs that were so plentiful all about this coast, coming out with rattle and clatter from their burrows and weed-covered crevices in the rocks to seek for food, at a time when no enemies to their race were likely to be abroad!

For long years—indeed, I believe to this day—the people of St. Domingo have held an annual festival or Feast of the Crabs, during which a golden Crab is carried about with great state and solemnity, followed by a procession singing in its honour.

I think there are some of the family everywhere, but plenty

of English Crabs and Lobsters are found "at home" all about Cromer, in which part of our east coast there is a great waving forest of sea-weed about sixteen miles square, in which they can enjoy themselves Crab fashion—whatever that may be. But unluckily for them the busy fishermen thereabouts know of their presence, and catch them in "pots," or rather

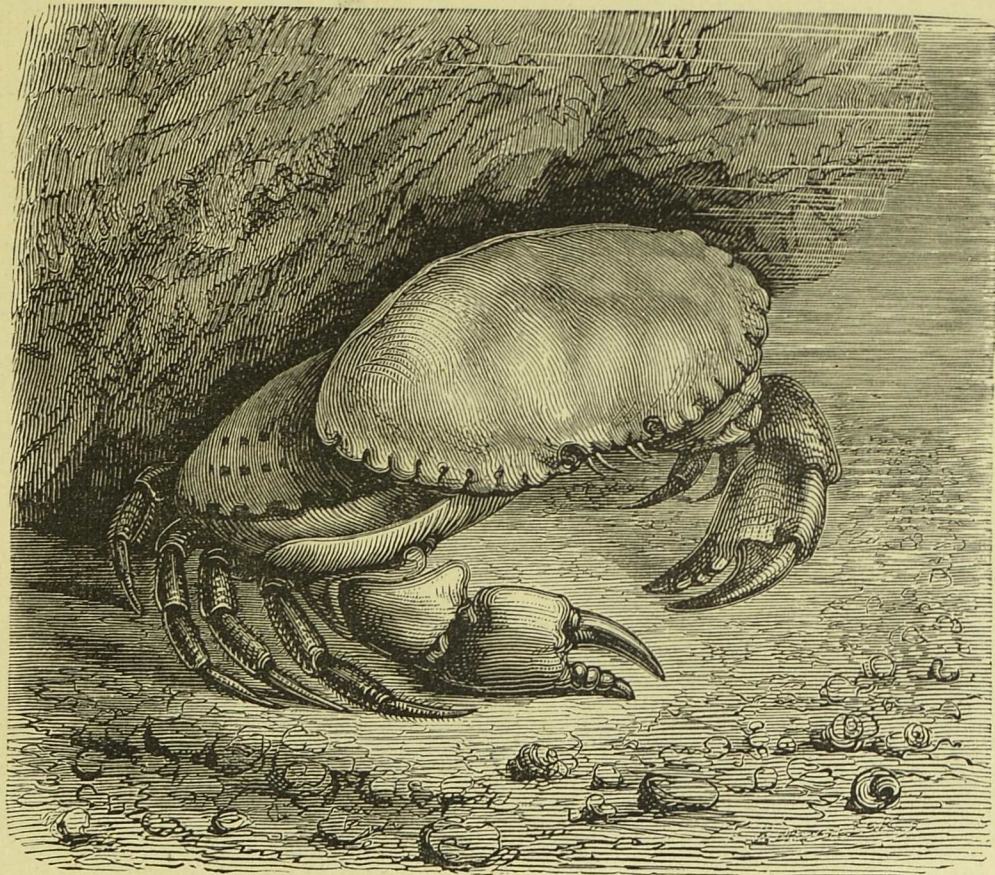


CRAB AND LOBSTER TRAPS.

traps, in which is placed a little tempting flat fish they call a bait, and as Mr. Crab is a hungry fellow, he walks in after his prey, but never walks out again, for the trap is a cage made of thick string netting fastened across bows of iron or wood, and the way into it is a funnel-shaped door, easy to get in at, but impossible to get out at, with that hard, un-squeezeable dress of theirs, the more especially if it is an old one.

That reminds me I have not told you how they do when

they get a new coat, or rather a new suit of armour like those of the knights of old, only much stronger in proportion. Perhaps you know that Crabs and Lobsters can throw off a limb or two if alarmed or hurt, or when they fight. And they

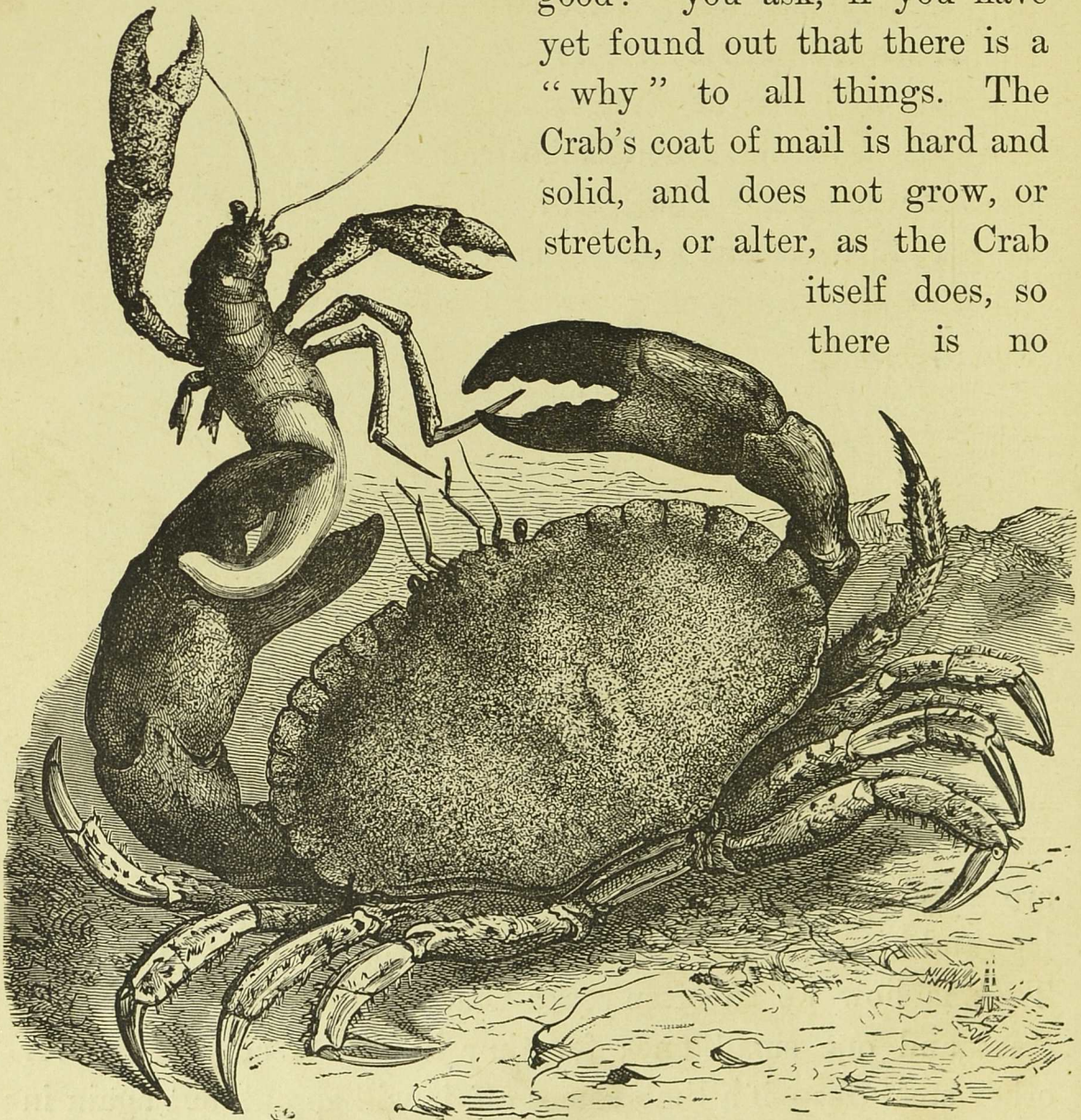


A CRAB "MOULTING" ITS GREAT COAT.

are very fond of sparring; they nip and bite at each other's legs and arms, till one gets so injured that it comes right off. That is how we so often see a Crab or Lobster with one big claw and one small one; for they have this advantage over other creatures—if a limb comes off, it will sprout out again in time, as strong and long as ever—no wooden legs required.

But more surprising still, they can walk right out of their strong shells—pincers, eyes, claws, and all, leaving it as entire as you would a glove from which you had carefully withdrawn your hand.

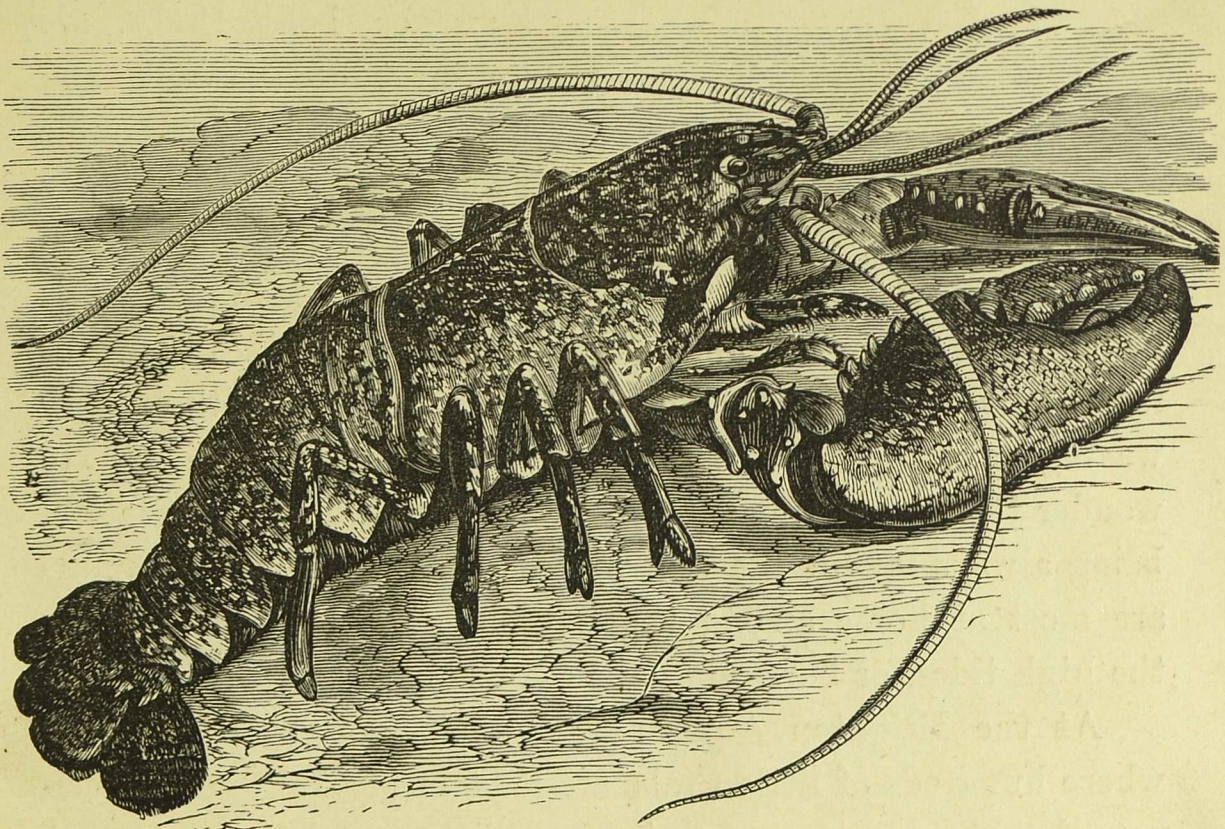
“But why do they change their dress, if it is strong and good?” you ask, if you have yet found out that there is a “why” to all things. The Crab’s coat of mail is hard and solid, and does not grow, or stretch, or alter, as the Crab itself does, so there is no



COMMON CRAB DEVOURING A “HERMIT.”

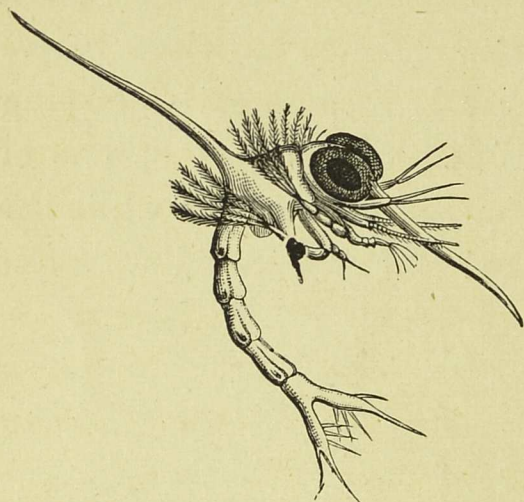
other way to avoid suffocation than to slip out of it—a difficult and troublesome, nay, a dangerous work, for, should any foe meet him while in an undressed and defenceless state, woe to the moulting Crab or Lobster—he will soon fall a victim to some enemy he has bitterly scorned and defied; for in general he is a greedy, quarrelsome fellow, much disliked by his acquaintances.

And this risk is often undergone, for I am told that a young Lobster changes its shell from eight to ten times before it is a twelvemonth old. But that is because it is growing so fast. Have you ever noticed that the pincers of one of the Lobster's large claws are furnished with knobs, while the other claw is serrated, or saw-like? If you could watch it



THE LOBSTER.

feeding, you would see that with the knobbed claw it keeps firm hold of the submarine plants, while with the other it chops them up for food in the most skilful fashion. If you doubt their power, test it; but don't put your finger between the two claws to tempt it. All these creatures are fierce, and when hungry they will devour even their own kith and kin. See, here is a big, strong fellow coolly devouring a poor little



A ZOA, OR BABY CRAB.

Hermit Crab he has caught out of its shell; he will pick it to pieces, and gobble up all the soft parts with the greatest relish, though he is a poor relation, and needs protection.

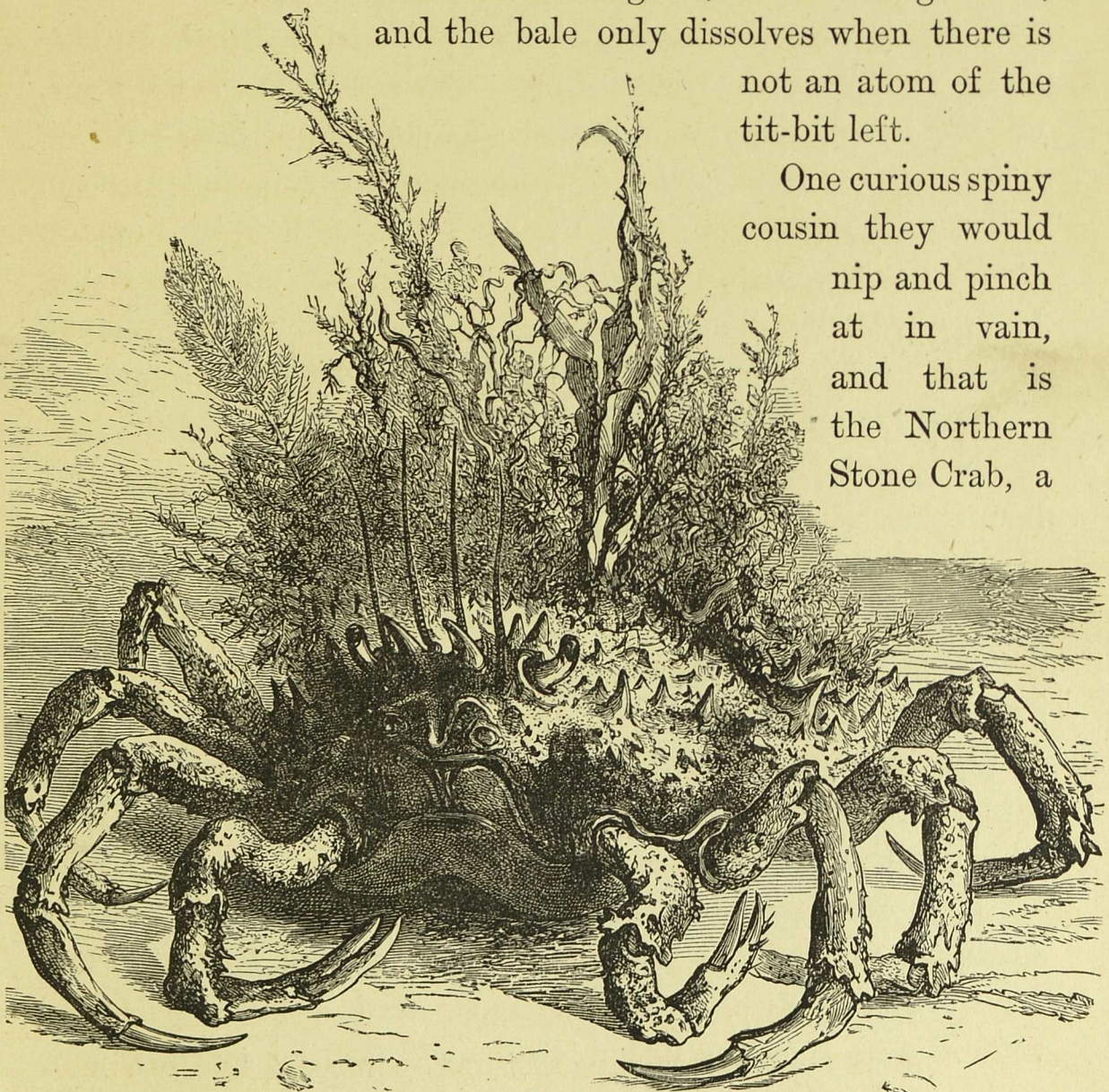
Zoas, or baby Crabs, are the queerest of sea folk, and do not in the least resemble their busy, active parents. They have big, staring eyes, something like those in a diver's

helmet, and a long tail, out of which stick two spikes nearly as long as its whole body. The claws are provided with cilia, or waving hairs, that enable it to swim with great rapidity. No wonder that in old times it was not recognised as any relation, being always low in the sea, while its shambling Crab parents are most at home among the weed-hidden rocks, washed by the high tides, or burrowing about in the soft sands for food.

At the Brighton Aquarium there is a regular Crabbery, where hundreds of little Crabs are kept in blissful unconsciousness that their ultimate fate is to serve the ever-hungry octopus

as a meal. It is a funny sight to watch them when a piece of fish or a mussel is dropped into their tank. Such a rush from every corner, that in a minute nothing is visible but a big bale of rolling, struggling Crabs, pushing, pinching, nipping hungrily and spitefully at the choice morsel and at each other, some clambering on, some falling off it, and the bale only dissolves when there is not an atom of the tit-bit left.

One curious spiny cousin they would nip and pinch at in vain, and that is the Northern Stone Crab, a



A "VANITY CRAB."

kind of sea spider, that has made his appearance at our aquariums through some difficulties. He comes from Norway, and his name, which is "Troll-Krabben," caused the superstitious Norwegian sailors to decline bringing him over on any of their ships—"troll" signifying diabolical, and a diabolical Crab being too dangerous a passenger to embark with the sprawling long-legged Spider Crabs and slow, steady-going creatures on whose backs whole forests of sea-weed, or zoophytes, have been known to flourish. Seamen used to fancy that they dressed themselves in this fancy style, and so nicknamed them "Vanity Crabs"; but this was a slander, as the plants are fixed. Besides, not only streaming loose weeds, but sponge, barnacles, and other sea oddments, cling so firmly to their shells, that they can scarcely be removed.

There is another foreigner from the Moluccas—"Limulus" is his grand Latin name;—but as he is just the shape of a horseshoe, with a long tail, in plain English we call him the Horsefoot or King Crab, and an odd-looking fellow he is.

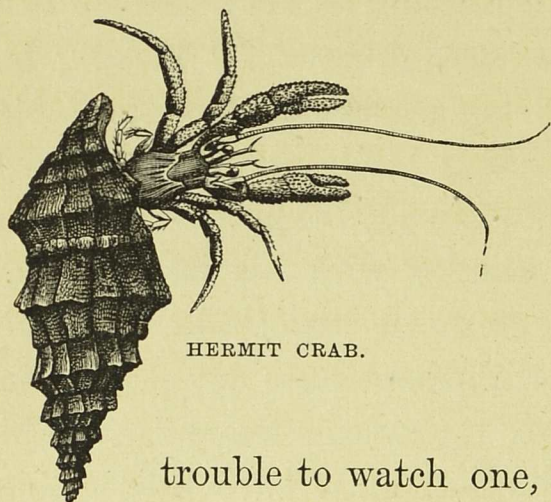
He has five pairs of legs, besides a short pair in front; the first four pairs have a great many sharp teeth. When he has stared about with his four eyes, and caught sight of some dainty, he catches it with two of his hind feet, and pops it into his mouth, which is hidden away under all these legs, which, with their sharp teeth, munch and make it ready.

Here is an amusing account of Crabs in captivity:—"Our aquarium was only a large tumbler filled with sea water, and mainly tenanted by a sea anemone and a mussel. Other visitors were introduced, but they were fleeting mortals, here to-day and gone to-morrow. Some baby Crabs, big as your

finger-nail, would glare up ravenously at a gay young codling swimming in mid-water overhead; if the tender fry sank down to repose, his body was instantly ripped up by the pincers of the Crabs; and of all selfish and unamiable characters these Crabs were the worst; even while feasting on the murdered one, the strongest Crab invariably amused himself by kicking his weaker comrades back, and driving every one from the table. While in front he was busy stuffing his funny flat jaws with tit-bits torn off by his finger and thumb, behind he was busy carrying on a fierce pugilistic contest with his feet. So we determined we would have no more to do with Crabs, especially as they would not let our poor anemone have any peace, continually annoying him by putting their sharp toe-nails into his mouth, which, to say the least of it, must have been trying. The sea anemone travelled about his tumbler by sliding along, sometimes at quite a precipitate rate, on his suckers. Once he tried hard to escape, and no wonder, for the water was thick and disagreeable with the shrimp flesh dropped in to feed his abominations, the Crabs. Poor fellow! he climbed up the glass until almost high and dry, as though entreating us to change this disagreeable bath. But there was such a storm raging outside that no one could get to the beach, and next day we found him lying limp, and as we thought, dead, at the bottom of the tumbler; but a supply of fresh water revived him, and soon he was sticking to the walls of his home, as bright and happy as ever, for he was amiable in comparison with a couple of craw-fish that pined in a soup-tureen opposite, on the surface of which floated a layer of water-cresses, under which hid a crowd of lively little sticklebacks, whose delight seemed to be

in fighting and hunting each other with their sharp, prickly dorsal fins ; but the sulky craw-fish lay obstinately at the bottom, seeming to have no interest in life."

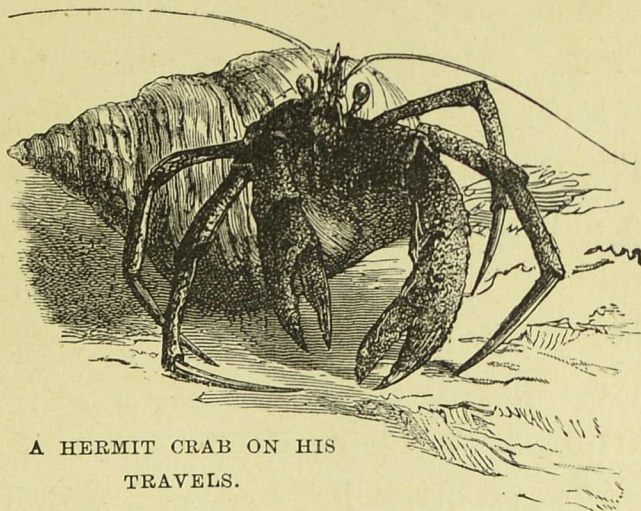
This little fellow peeping out of his house is of the same family, but, unfortunately for him, though his head and legs are so well guarded, his soft periwinkle-like tail is all uncovered and helpless, except for a sort of pincer at the end, with which he can stick fast to a shell.



HERMIT CRAB.

Mr. Wood, who took the trouble to watch one, says :—" I was rather anxious to know how a hermit got into a house, and having caught one in a whelk-shell, I tried to pull him out of it. However, he stuck so fast to it that there was no hope of success without inflicting much injury, so I should have let him go had it not been for an idea that came into my mind. Near by was a rock pool of fine sea anemones, and I thought that by their aid Mr. Hermit might be enticed out of his shell, so I popped him among their wide-expanded tentacles, which immediately began to contract. The Hermit evidently understood his danger, and in his hurry to escape loosened his hold of the shell. I caught him and placed him in the pool, where he looked very woe-begone, trailing his defenceless tail behind him as though ashamed of it. After a time I dropped a broken purpura shell into the pool, and the little Crab at once went up to it, and after a very short examination, stuck the

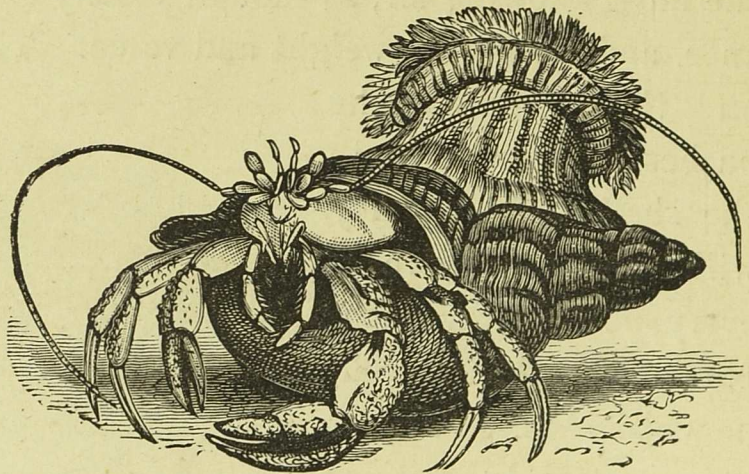
end of his tail in it—for it was not large enough for more—and walked about as before. At last I put his original habitation into the pool, to the great delight of my hermit, which exchanged shells with marvellous rapidity, and seemed so much at home, that I could not think of interfering again.” But the funniest sight is to see one of these small gentlemen set to work to change his home—perhaps because he has outgrown his own, perhaps because he considers it dirty and shabby. Who knows? At any rate, he sees an empty shell in his road, and seizing it with his claws and feet, twists it about with the most knowing air, as though closely examining its appearance, and testing its weight and value. Then, if he is satisfied on these points, he pushes his fore legs into the shell as far as they will touch, and probes every spot they can reach. Next, if all seems well, he whisks himself almost instantaneously out of his old home into the new one, and wriggles about to see if it is quite



A HERMIT CRAB ON HIS TRAVELS.

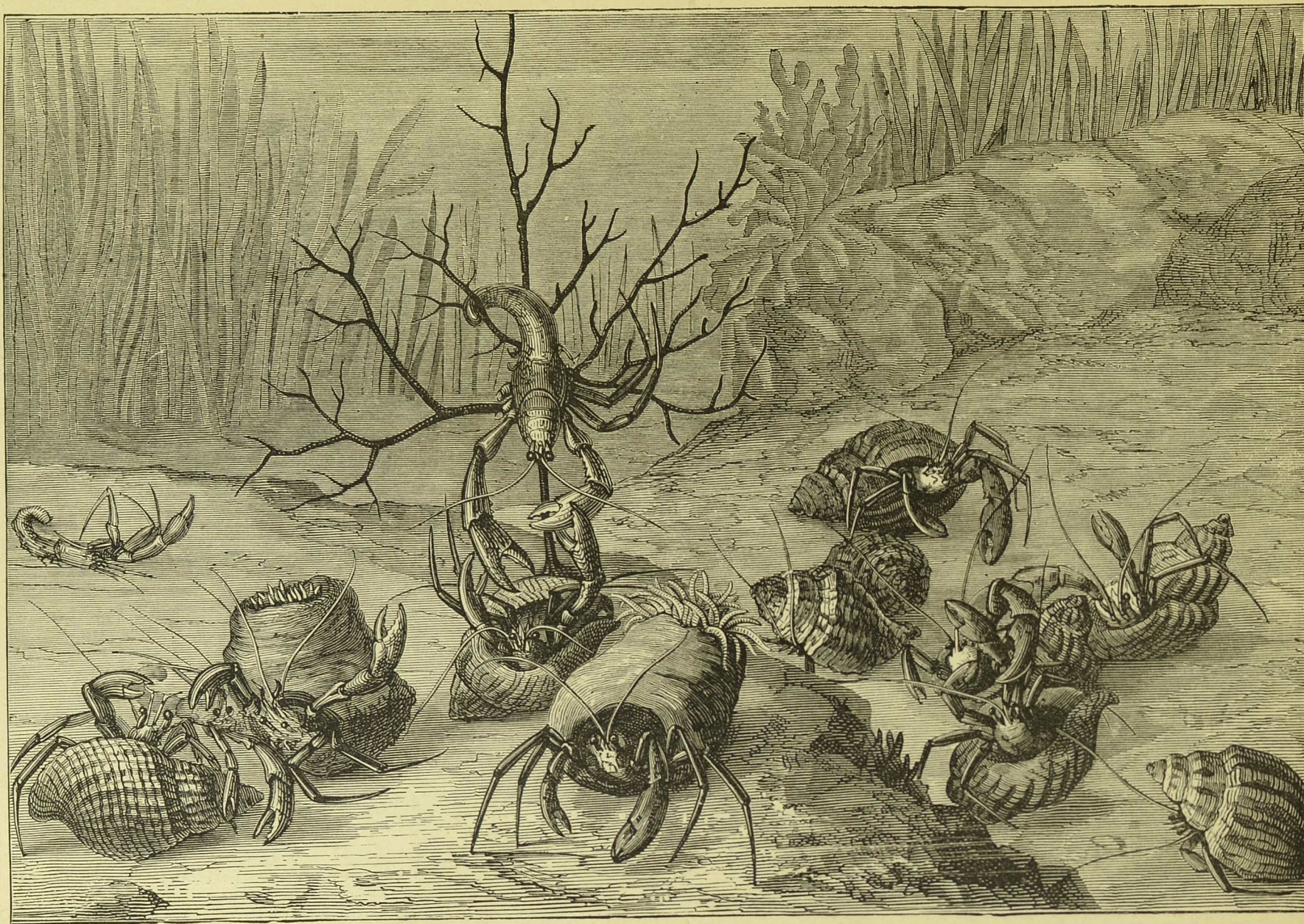
comfortable and an improvement. If not, he springs back again into the first one, which he has held clutched fast all the time, and proceeds on his search for a more desirable residence; not always for one only, for often it shelters a “nereis,” a curious kind of worm used by fishermen as bait. Though these Crabs prefer whelk-like shells, they have been

known to adopt a mass of sponge, or even the cast foreclaw of a larger Hermit. At any rate, it is found that he does not kill the original tenants of the shells he may fancy, as the folks who dubbed him "Soldier Crab" declared he did, and that is something to his credit. But, as I have said, his race is never over-particular, as you will think when I tell you how four little common Crabs being once placed together in an aquarium, one of them immediately seized upon a brother prisoner and began eating him up. The others made a rush to share in the unnatural feast, and the poor little fellow was with difficulty rescued from their clutches. As it was, he lost seven out of his ten claws, though he did not seem to mind much when placed by himself in a separate compartment. Ninety-four days after he had changed his carapace, or shell, and recovered all his lost claws.



HERMIT CRAB WITH A SEA ANEMONE ON ITS SHELL.

If you look at the above Hermit you will see that he has sometimes a pretty lodger (the Cloak Anemone) which is snugly established on the shell in which that kind of Crab lives. Mr. Gosse tells us he watched a Hermit that was flitting to a larger mansion, deliberately and carefully remove his little friend from the one shell to the



A FIGHT AMONGST HERMIT CRABS.

other, giving it many friendly little pats to fix it in its new abode.

The fighting propensities of these odd little creatures are wonderful. If two Hermits are placed in an aquarium, they will travel about and fight whenever they meet, tumbling over each other, nipping and kicking about with legs and claws in real spiteful earnest.

Generally speaking, it is only when they are very hungry that these crustaceans (creatures with a hard covering) care to eat the marine vegetation by which they are surrounded; yet there is one peculiar kind of sky-blue Lobster-like Crab at home in the Polynesian Islands, which thrives on the fruit of the cocoa-palms that abound there.

The natives call it the Sepoy or Robber Crab, for the same reason that our coast folks call the little Hermit the Soldier Crab—because he is always ready to fight his fellows. When the Sepoy is found near or upon a tree, he snaps his big pincer-claws and puts on a threatening and defiant appearance, though



A HERMIT CRAB IN HIS CELL.
(Dredged up from thirty fathoms.)

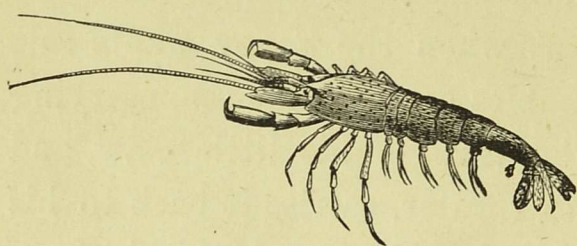
all the while he is retreating as fast as he can, having, no doubt, some hazy idea that discretion is the better part of valour. These curious Crabs live mostly hidden in holes, feeding on the fallen fruit they find, among the roots of the cocoa-palms; no bad place for them, as frequent rains keep the holes almost always full of water, and surround them with little pools. The natives tell us that when the Sepoy wants salt water in the dry season he scrambles down to the sea, carrying an empty cocoa-nut between the teeth of his little claw, and after filling this nut with the salt water, carries it back to his dark home under the palm. Mind, I don't say this is true, any more than that old tradition that one of their race once grew to such a size that it carried off a child and devoured it.

When its food gets scarce on the ground, this Crab climbs up the trunk of the cocoa-palm, and having found a nut, tears at the fibres about its stalk until it falls. Then he slowly scrambles down and searches after his prize, which having found, he drags to the mouth of his hole. But it takes him three or four days to tear off all the husk.

As the Sepoy is good eating himself, he is not suffered to live long in peace, for the natives come stealing by, and putting their bare black arms into the holes, seize the poor Soldiers suddenly, and pull them out mere helpless bundles of claws. If the Crab had the least warning, he would cling so fast to his walls that there would be no getting him away from them: as it is, he sometimes gives his captor a fearful nipping. Those who do not care to venture their fingers and thumbs will drop a cocoa-kernel into the hole, and the Crab, delighted with such a neatly-prepared meal, will

seize hold of and cling to it until he is a prisoner, perhaps to be sent to the markets of the Mauritius, imprisoned in a strong box, tightly nailed down, having a few holes in the top that he may be able to breathe, and a cocoa-nut to feast upon.

There is a great variety of these hungry, active, almost comical crustaceans, certainly not useless ones, for they are real ocean scavengers—their delight being to devour all the rubbish that comes in their way. If it were not for them, the great waters



SHRIMP.

would be foul with the remains of all sorts of creatures and things. So you see their very selfishness and gluttony are of use, and serve a really necessary purpose in the great, wide, wonderful world.

Before leaving the crustacean family, let me again mention that very small member—but one of the greatest gluttons in it—the Shrimp, which will devour anything at all eatable, as the naturalists of the Arctic expeditions proved by placing under the ice the bodies of any strange bird or animal of which they wished to preserve the skeletons for museums.

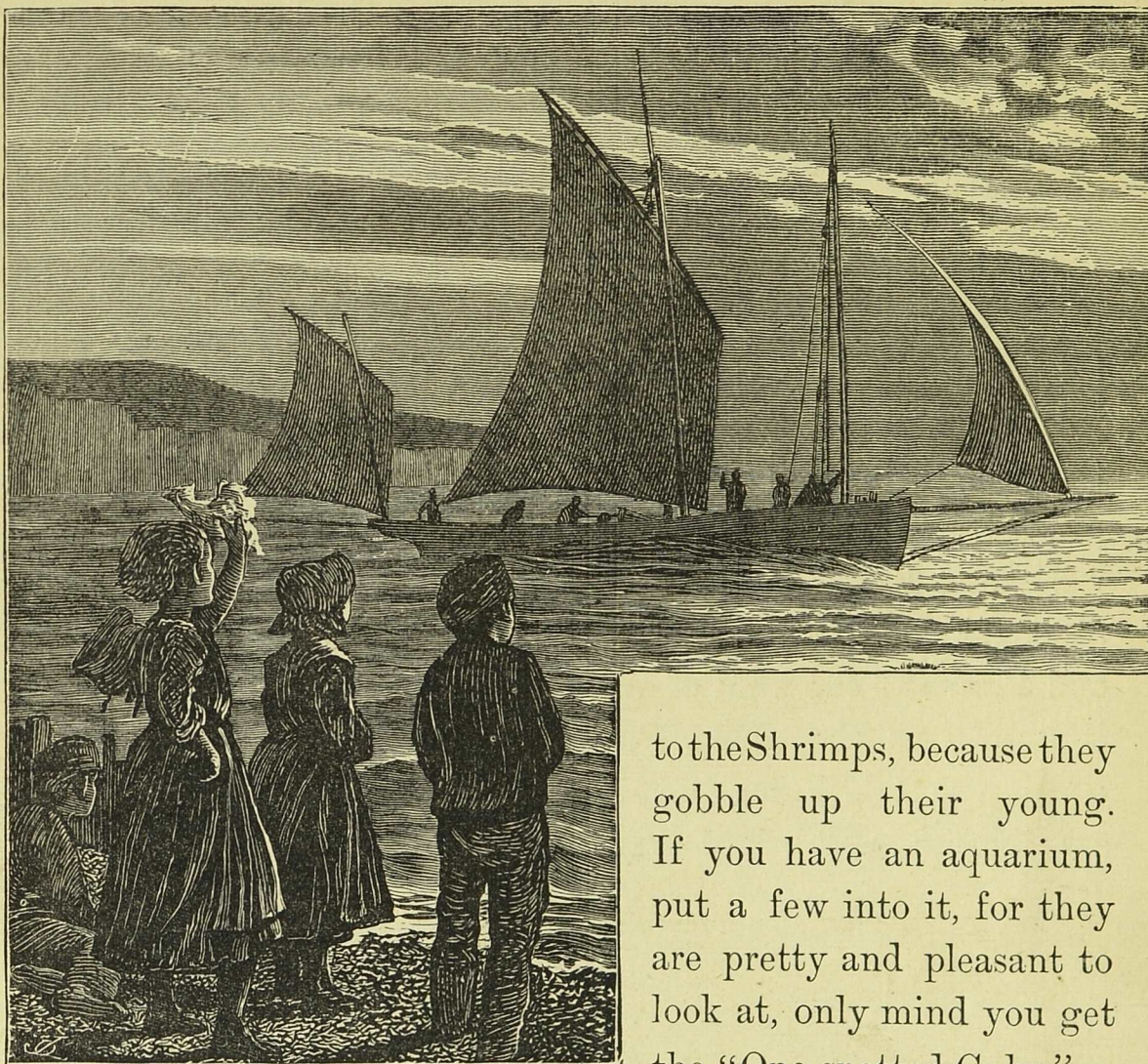
If you inspect a Shrimp closely, you will see that it has at the end of its claws a kind of rake, covered with fine hairs, which serve the creature to gather together the tiny atoms which the next pair of claws passes to its mouth. This rake also serves as a brush with which the little fellow cleanses its bent claws, and the lobes of its tail. You may see the shrimp when busy at its toilette standing erect on its long claws with its

tail bent under its body, in order to allow the first pair of claws to brush it properly. I need not tell you that these lively little "sea scavengers" are at home about almost every coast.

Fishermen call Shrimps "sand raisers," because they have a way of scooping out furrows in the sand, and sinking into them until they are almost invisible, especially when the cloud of sand they have stirred up during the performance settles down again, and helps to hide them from sight. You would scarcely think what a mass of odd-looking sea folk the poor shrimper brings up in that big square net which he pushes along the bottom of the sea. It is cold, miserable work, and I have been sorry to see women and girls employed at it for long hours. They bring up much besides Shrimps and Prawns—one kind of which has a hunch on its back, and is known as the *Æsop Prawn*, because the poor man who wrote the fables we love was hump-backed. Then there are Skippers, and bright-eyed, active Gobies, which are enemies



SHRIMPING.



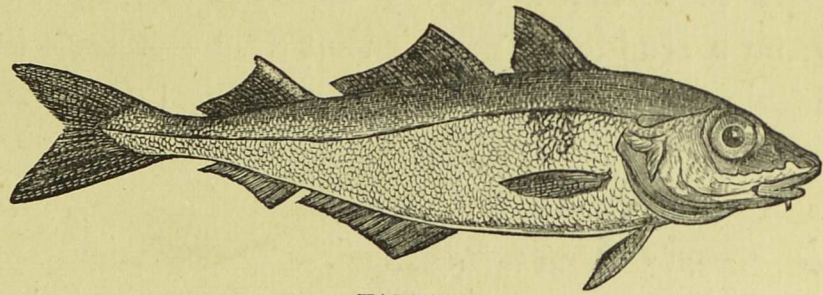
THE FISHERMAN'S CHILDREN.

to the Shrimps, because they gobble up their young. If you have an aquarium, put a few into it, for they are pretty and pleasant to look at, only mind you get the "One-spotted Goby"—for if you get his big

brother, the Black Goby, he may devour all before him.

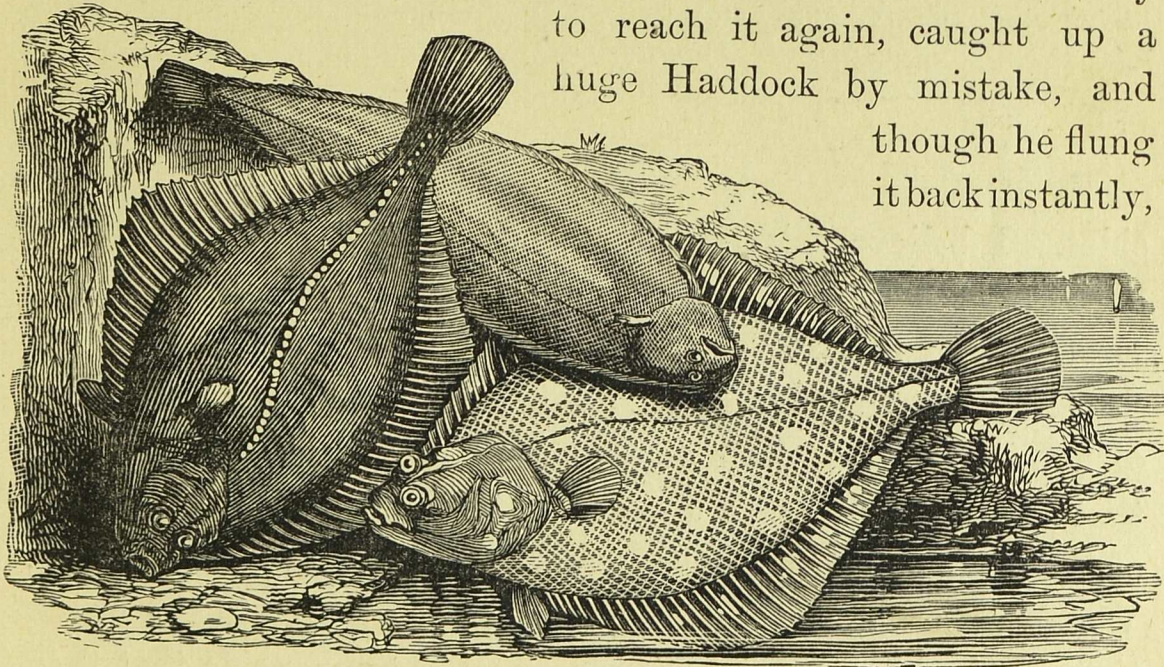
One of the pleasantest things when wandering by the sea is to watch some solitary fisherman busy emptying his few hard-won treasures into the ragged baskets on the sands which a group of blue-eyed children are watching anxiously. Look at the large red-patched Plaice, and the quivering brown Soles he matches so rapidly. I used to think they grew so—

two and two. Notice the little green crabs he tosses aside disdainfully—how they scuttle back to burrow and hide and be swiftly washed out of sight in the piled-up weeds. Haddocks heaped, white and shiny, except for the brownish dabs, like finger - marks, on their sides.



HADDOCK.

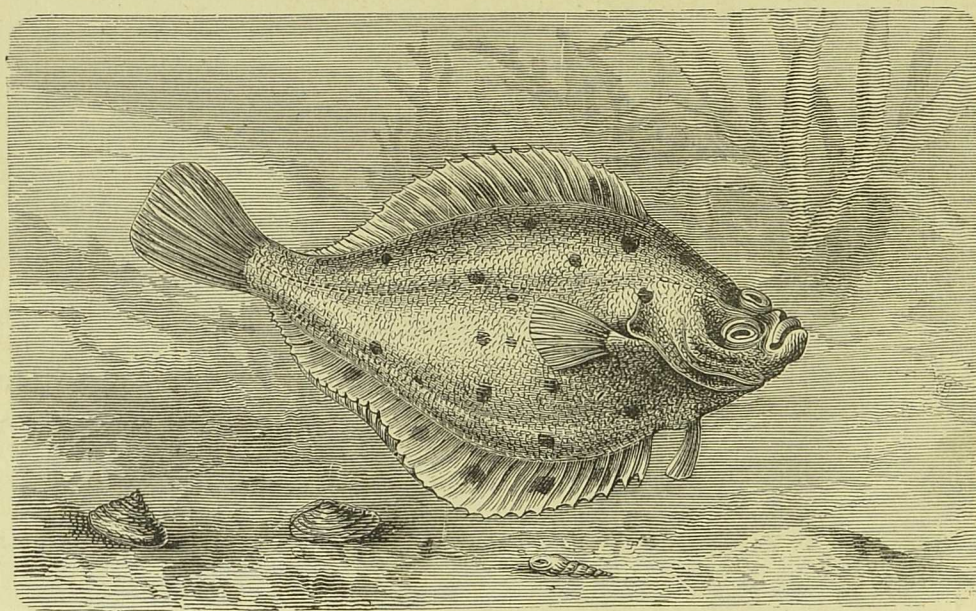
There seem to be plenty of them, at any rate. Shall I repeat the legend the fishermen about Filey Pier tell concerning them? How once upon a time—a very long time ago, I should say—while a demon was at work building Filey bridge—an ill work intended for the destruction of ships and sailors—he dropped his hammer into the splashing waters of the sea, and in his hurry to reach it again, caught up a huge Haddock by mistake, and though he flung it back instantly,



FLOUNDER, SOLE, AND PLAICE.

his hot fingers left a mark on it which remains on the whole species to this day.

A wonderful story, if one could only believe it; but some give these marks a very different origin, for they say it was from a Haddock's mouth that St. Peter took the tribute-money, leaving the mark of his finger and thumb impressed on its

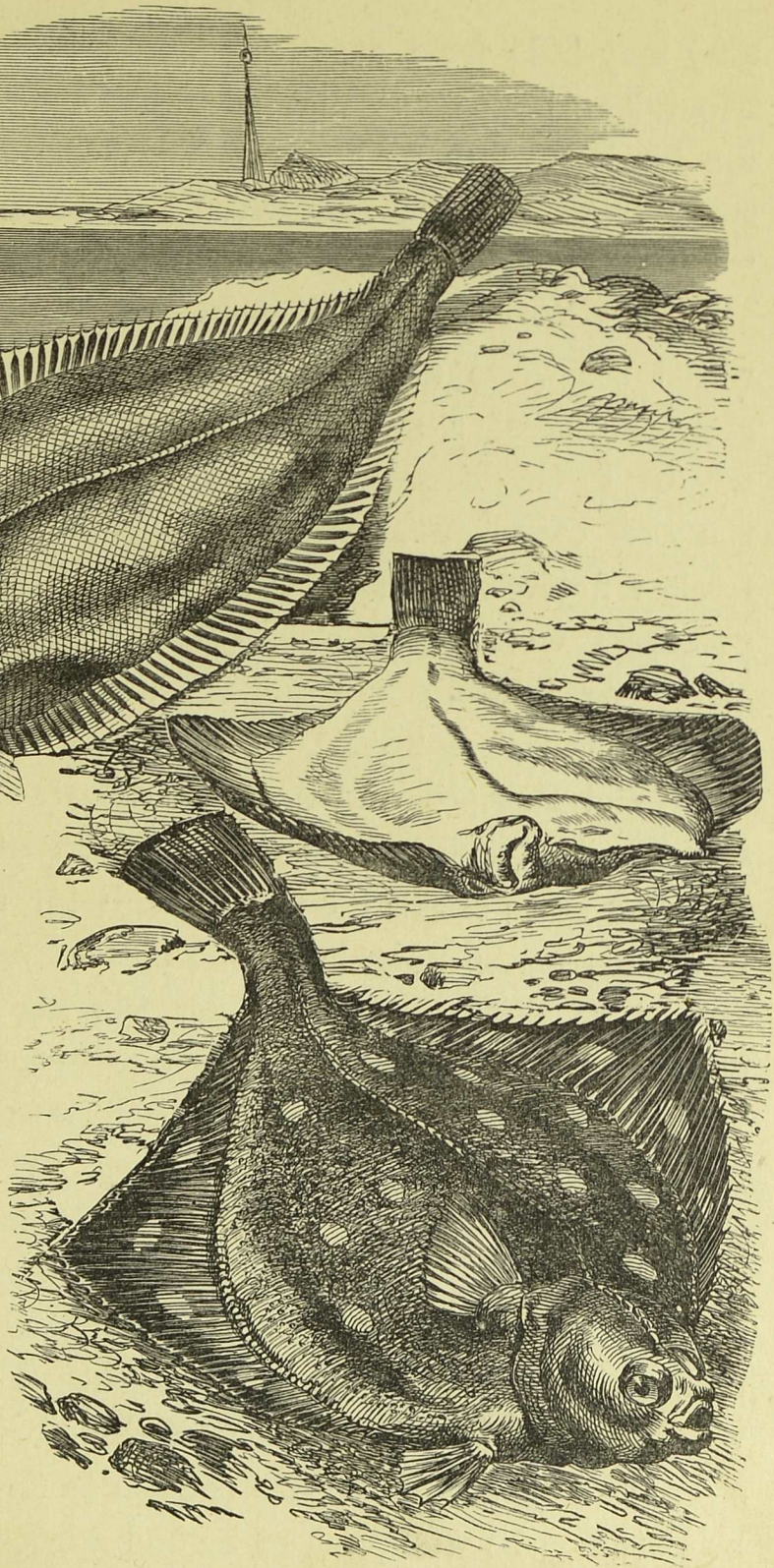


PLAICE.

sides. I believe this tradition more especially applies to the big ragged-finned John Dory, at home in Cornwall or Devonshire waters.

It is a curious thing that all fish that live near the surface of the water die as soon as they are out of it; and that those that lie so much lower down live far longer when taken out of the element in which they breathe and swim so comfortably. Watch with what a flop the queer flat fishes drop in the water, their pinched-looking eyes so placed on the upper side that they

can see as the brownish-coloured head lies still, yet observant, in the deepest waters, or draw themselves swiftly along the sands at the bottom of the sea, where they seek for food which they devour by means of a row of sharp teeth, or where



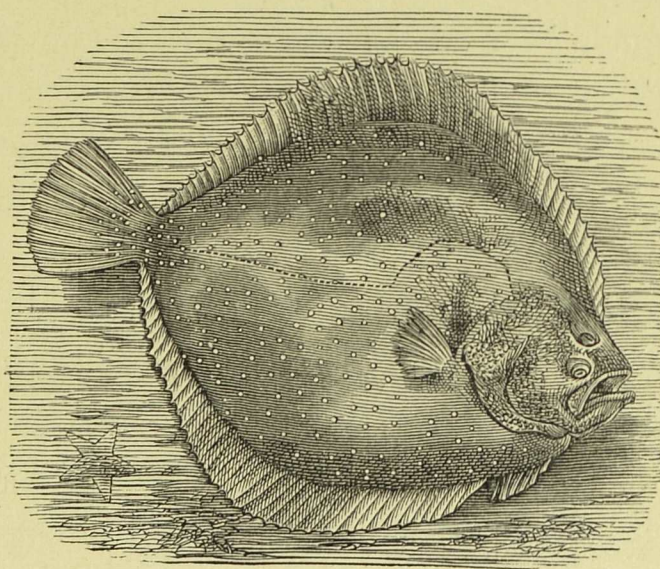
SOLE AND PLAICE.

they may hide from enemies waiting to devour them. Soles, Flounders, Plaice, and that aristocratic member of the family, the Turbot, at home about our English and Irish coasts, all swim slowly, partly sideways, by the use of that waving "dorsal" fin, which runs all along their back.

Great prices have sometimes been given for large Turbots, which are quite a standing dish at public dinners: That reminds me of a story concerning one of these big fellows, which I think may amuse you: at any rate, it shows the cost of covetousness, and so is worth reading. A rich foreign nobleman was about to be married, and great preparations were made at his castle for the wedding feast. Every good thing had been procured, regardless of cost—game, fruit, rare wines; but not any fish. The head cook raved and stamped, and declared the whole thing incomplete, and the master himself was very dissatisfied. But it was of little use; the sea had been so rough for a long time that the fishermen in the neighbourhood refused to venture their boats—may be, their lives—even for the high prices they might expect to receive, under these circumstances; and, as there were no railways in those days, there seemed no chance of this great want being supplied in a hurry. However, the very day before the wedding a big sturdy fisherman came from a far-off village, carrying an unusually fine Turbot in his basket, kept all cool and fresh in a bed of sea-weed. He rang the porter's bell, and said gleefully that, having heard of "my lord's" great wish for fish, he had gone out at the dawning, and, in spite of stormy wind, been fortunate enough to find this one, for which he hoped to be well paid, as he had a large family at home.

Now the porter, a little fat, dandified Italian, wearing a grand livery and chain, was a cunning knave, thinking more of his own gain than of his master's need or pleasure, and he refused to allow the man to pass in with his treasure unless he agreed to give him half of whatever payment he might receive for it, and, further, that he should not betray him, but share the price, whatever it might be.

"But that is ridiculous," urged the poor man. "I have had the trouble and risk of getting the fish, and of bringing it a very great distance; why should I give you half the profit it brings me? It would



TURBOT.

not be even fair or honest, for I must charge your master too much."

"As you choose," said the porter, sulkily; "only you don't show that fish in the kitchen yonder unless you agree to my proposition. Say yes, and you will get whatever you choose to ask. If not, you are outside, and there you stay, and your fish spoils for nothing."

So the angry, tired fisher was obliged to consent to this unjust demand, and shouldering his Turbot, was then marched into the great hall kitchen, where it so happened "my lord" himself was holding a consultation on what was to be done.

He was delighted at the sight of the much-longed-for fish, of the very kind suited for the occasion, and good-naturedly told the fisherman to name his own price. "Don't be afraid, my man; you shall have whatever you demand in reason, for I see you look poor and tired; and my wedding feast will be perfection now that we have this fine fellow. Only say how much." And he drew out his purse, glittering with gold pieces, and jingled it merrily, so that all could hear.

"Sir," said the fisher, "I am about to ask a strange price, and pray do not think me mad or foolish, but it is the only one I will take for the Turbot."

"Speak up, speak up. I said I would give your own price," cried my lord, impatient to have possession of his treasure.

"Well, sir, I crave two hundred lashes on my bare back," said the man, with quiet determination.

"Nonsense! Are you mad, or impudent? Tell your price and be gone," said the nobleman, angrily.

"That is my price, and none else will I take, so please yourself, great sir. The Turbot is as yet my own, and I can find a customer elsewhere if it does not suit you."

He began repacking his fish. They all thought him silly, and tried to persuade him to alter his mind, but he kept repeating firmly, "Two hundred lashes or nothing. It is my price. Surely I have a right to ask what I will for my own."

The nobleman, strangely puzzled, said at last to his attendants, "Oh, well, if he really means blows, by all means let him have them. Poor fellow, he must be very mad! But we must have the Turbot. I daresay he will alter his mind,

and say, 'Stop!' after the first sting of the lash, so lay on lightly, and in my presence, that I may see what happens. Mind, do not hurt him more than you can help."

Standing in the midst of a great wondering crowd of guests and attendants, the fisherman took off his blue jacket, bared his big, strong shoulders, and unflinchingly took the first hundred lashes (not very heavy ones, you are sure), then he suddenly cried, "Hold! hold! that will do!"

"I'm glad to hear that," said my lord, clapping his hands; "but I thought you bargained for two hundred lashes for your Turbot."

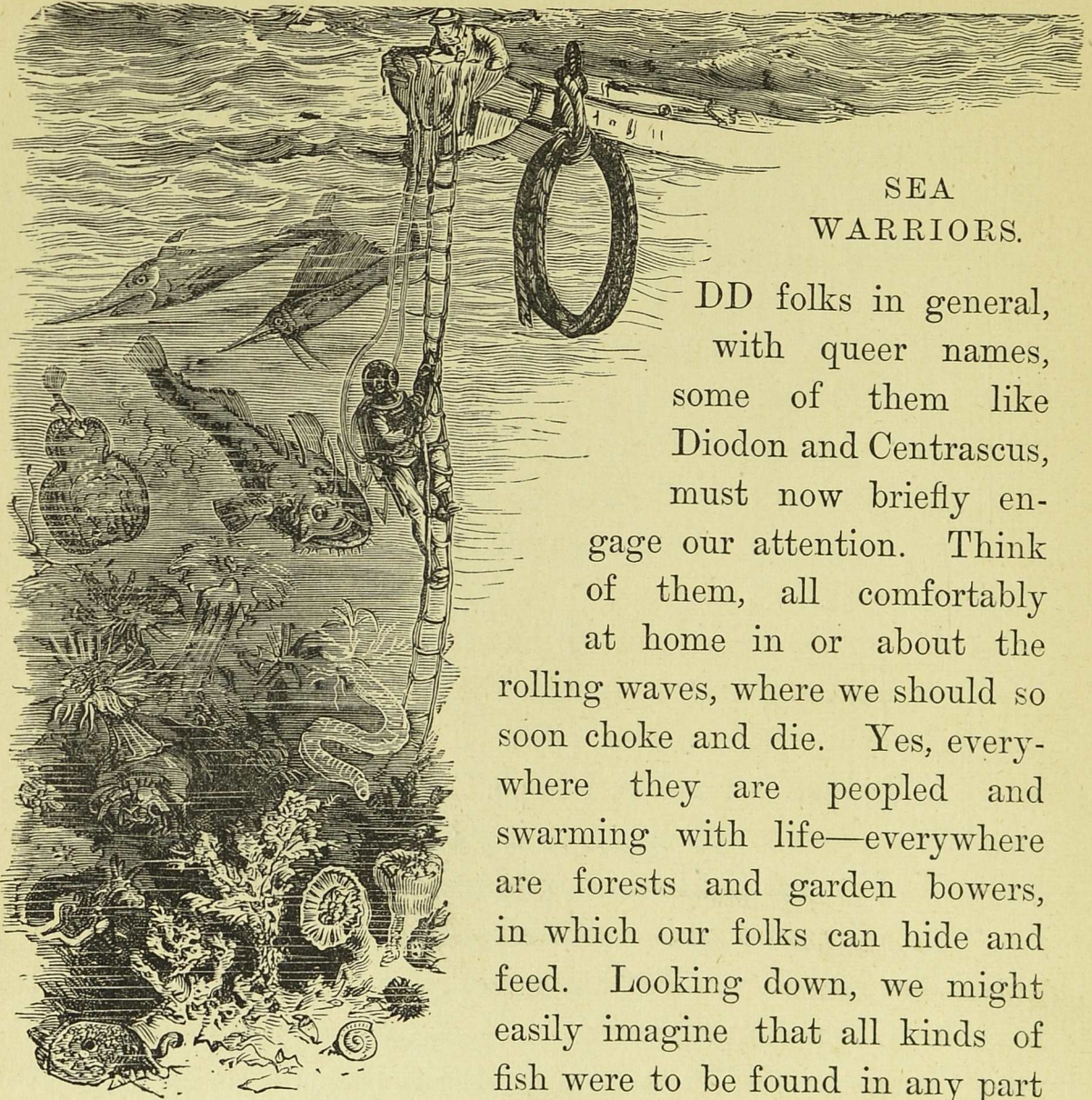
"Ay, sir, so I did; but I have a partner in this business, and we have agreed to share the pay. He is quite near. Your lordship will kindly allow him to be summoned, and be paid his hundred lashes, I hope."

"Why, you don't mean to say there's another as mad as yourself?" cried my lord, more puzzled than ever.

"Yes, sir; and he is not far to seek for. It is your own porter, who, although he knew your disappointment, insisted upon keeping me outside, or sharing whatever you gave me."

"Oh, now I understand," cried the nobleman. "Fetch him instantly, and let him have his share by all means. Count it out soundly, my men. Afterwards he can go on his travels, for I want no such clever gentlemen at my doors."

So the porter was paid, and heartily, too, with the lash end. As to the honest fisherman, he received a silver coin for every blow he had endured, and went his way rejoicing, and declaring that he should be content to receive the same for every Turbot he might be lucky enough to catch.

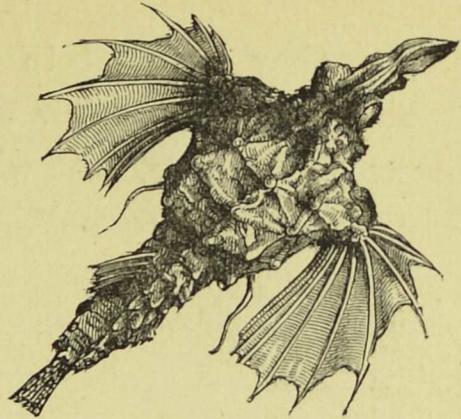


SEA WARRIORS.

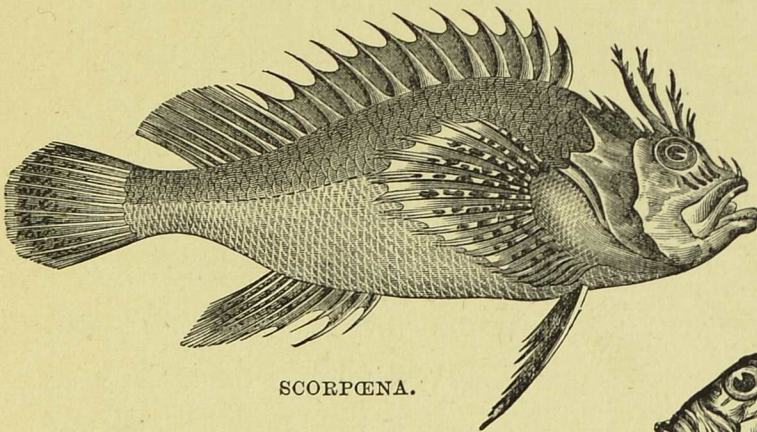
DD folks in general, with queer names, some of them like Diodon and Centrascus, must now briefly engage our attention. Think of them, all comfortably at home in or about the rolling waves, where we should so soon choke and die. Yes, everywhere they are peopled and swarming with life—everywhere are forests and garden bowers, in which our folks can hide and feed. Looking down, we might easily imagine that all kinds of fish were to be found in any part of the sea. Yet not so; some always keeping near the surface, others floating midway, and great numbers buried in the ooze and mud at the bottom of the ocean, yet all affected by the depth of the waters in which they swim. Just as, on land, certain animals are only to be found in certain localities and climates, so it is with fish. They can always find the place most suitable by descending more or less, as below a certain depth all is calm and smooth—

no storm affects them there. We never find on the coast the same species we meet with far out at sea, or near the surface a deep-sea kind. So you see Nature's great law of order is as observable in the ocean as elsewhere.

Notice the variety of form and size among our fishy odd folks. There is the Flying Horse, for example. Some of them we can only properly examine through a microscope,

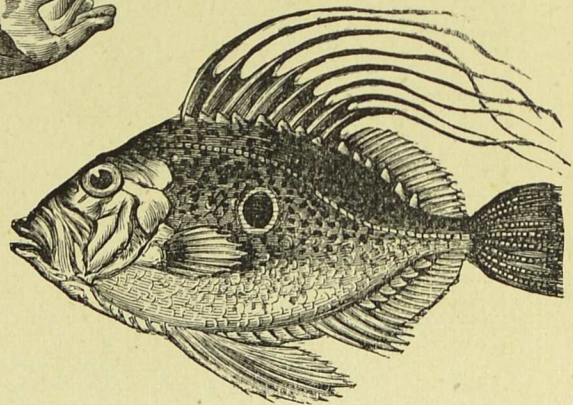


FLYING HORSE.

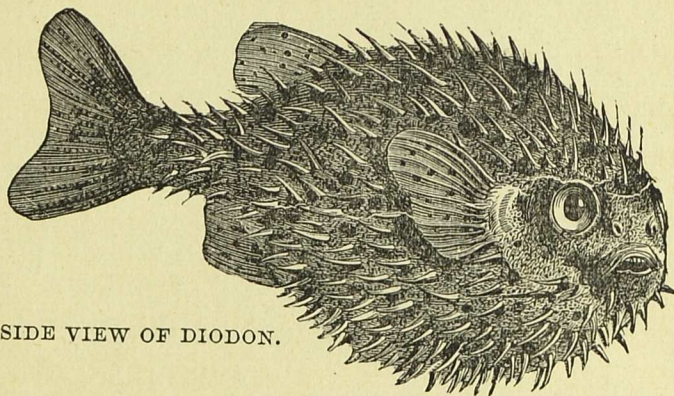


SCORPÆNA.

others are big enough to swallow you and me; some are long and thin as a board, some round as a ball, some smooth and shiny as satin, others, rough and prickly as briars, are able to sting and cramp whatever living thing they touch; yet all are alike in organic composition, that is, of course,



JOHN DORY.



SIDE VIEW OF DIODON.

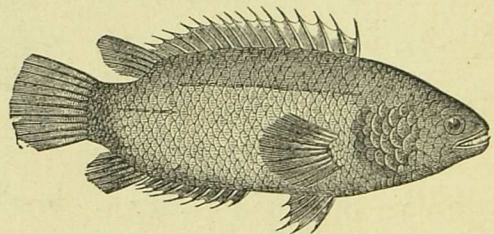
because they have all to live in the same element, water. Certainly there are a few exceptions to this rule—the Indian Hassar for instance, that when its native swamp is dry, travels off to another one, scrambling overland somehow by means of its



THE SENNAL CLIMBING A TREE.

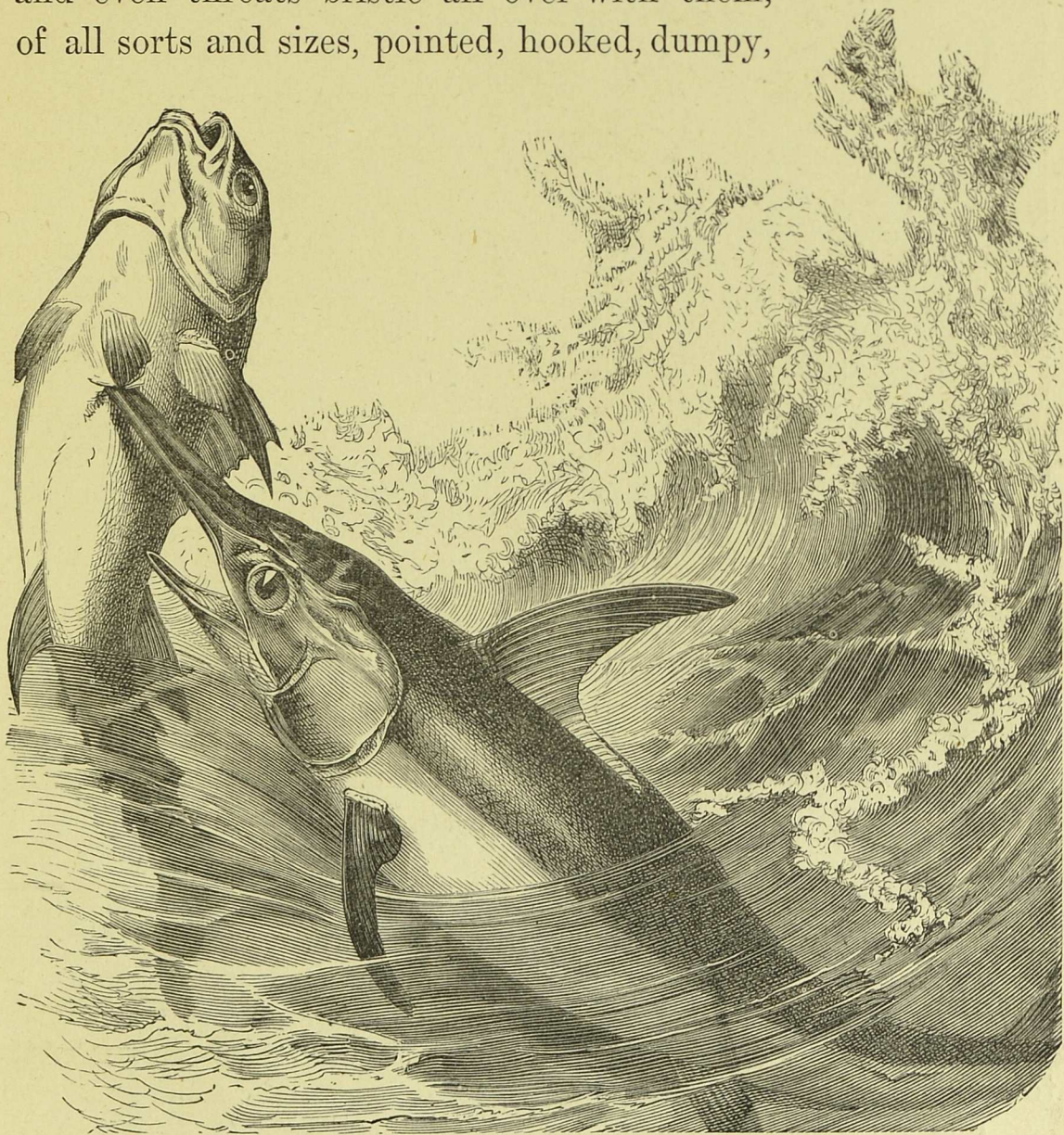
fins and scales; the Sennal, a kind of small perch, at home in Malabar, has the power of retaining enough water in its breathing organs to enable it to make excursions up the thick stems of the palms which bend over the water's edge, though I can hardly fancy that it knowingly chooses this awkward road.

We think of a fish as a most helpless thing, yet how curiously most of them are supplied with means of attack and defence, some bristling like hedgehogs, others covered all over with hard armour-like scales, some with sharp hooks, others with needle-like fins, that tear and scratch if meddled with. The tiny *Scorpoera* can attack and hurt and escape from its strong big-mouthed neighbours; and the Sword-fish is quite



SENNAL.

a sea warrior, armed with a long, sharp jaw, with which he will attack a cod or any other big fish; as will the Saw-fish, whose long muzzle, all armed with short, bony points, must make it a dreaded neighbour—even the voracious shark suffers from its attacks. Most of them have sharp teeth—jaws, palate, tongue, and even throats bristle all over with them, of all sorts and sizes, pointed, hooked, dumpy,



SWORD-FISH.

or flat, but all able to bruise and crush whatever they clutch hold of. The Archer, or Jaculator, of Java, is clever enough, not having teeth, to squirt a little stream at the beetles feeding



BOAT ATTACKED BY A SAW-FISH.

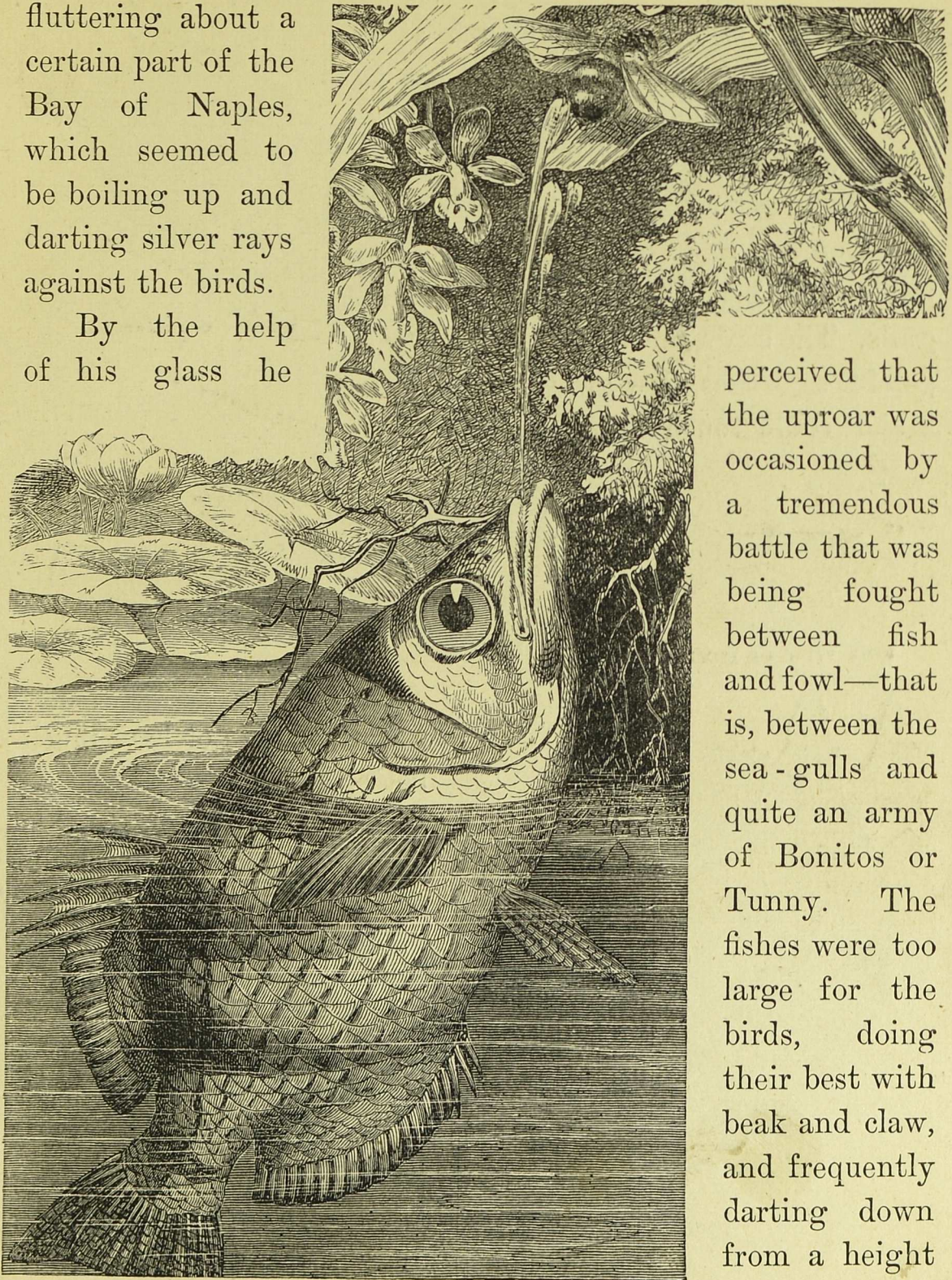
near the edge of the water, which causes them to fall half-choked near the fish's mouth.

Some kinds of fish seem to have hearing. Carp have been called to their meals by the ringing of a bell. Tench are said to croak like frogs; and Gurnards to make distinct sounds.

A traveller in Italy saw a great swarm of sea-gulls

fluttering about a certain part of the Bay of Naples, which seemed to be boiling up and darting silver rays against the birds.

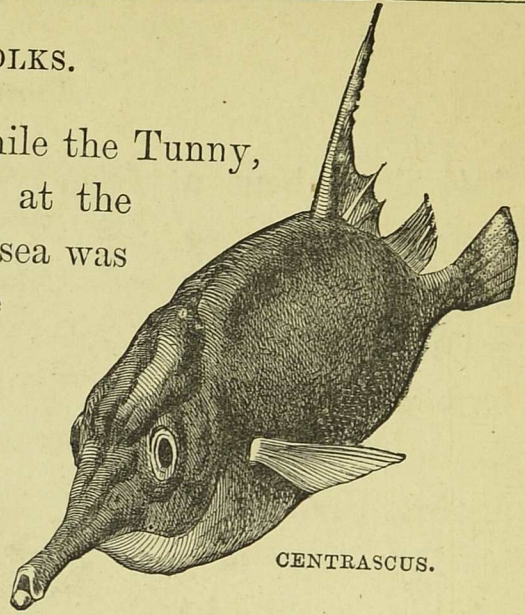
By the help of his glass he



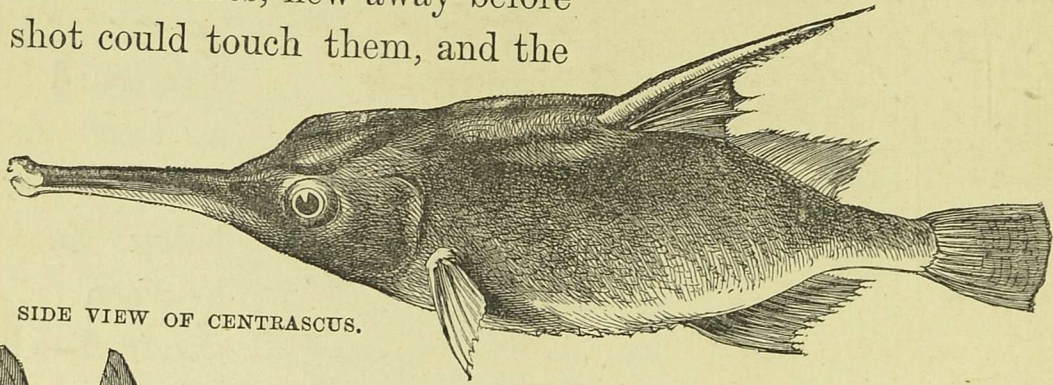
perceived that the uproar was occasioned by a tremendous battle that was being fought between fish and fowl—that is, between the sea - gulls and quite an army of Bonitos or Tunny. The fishes were too large for the birds, doing their best with beak and claw, and frequently darting down from a height

THE ARCHER'S AIM.

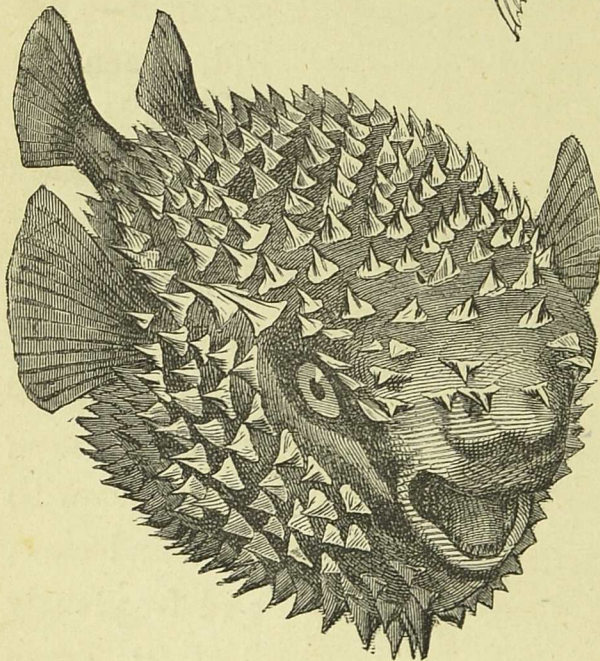
upon the heads of the enemy, while the Tunny, leaping out of the water, struck at the aggressors with their tails. The sea was boiling and foaming about the scene of contest, when the fishermen went out with a net to catch the Bonitos, and some sportsmen put out in boats to shoot at the gulls. The birds, however, uttering doleful screeches, flew away before a shot could touch them, and the



CENTRASCUS.



SIDE VIEW OF CENTRASCUS.

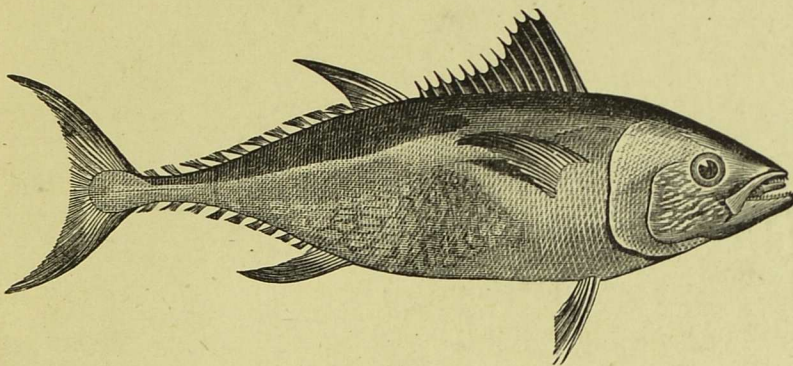


DIODON.

fishermen did not have much better luck.

The Tunny, which this writer watched with such interest, is a large and beautiful blue fish of the mackerel tribe. It is really at home in the tropics, though it is sometimes found on our shores by accident. It is often seen in great shoals pursuing the

pretty, defenceless flying-fish, of which it is very fond. If you were to catch one alive, and hold it in your hand, you would find a most curious and unpleasant effect follow, which would remind you of the *Gymnotus* or electrical eel; for you might not only shake and tremble from head to foot, but stammer and sputter, and be unable to control



THE TUNNY.

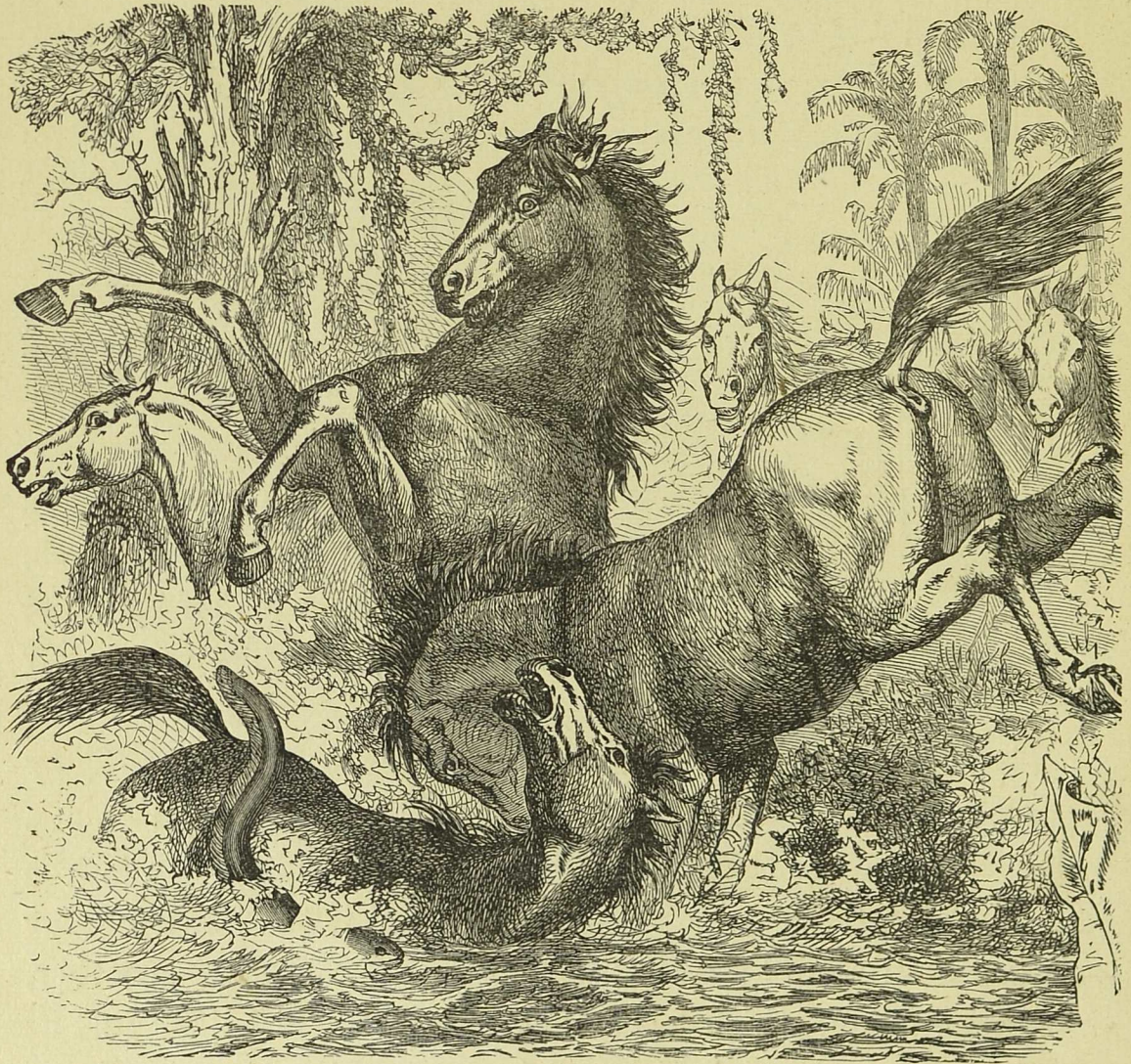
your tongue. This kind of electric shock would cease the moment you dropped the gasping cause of it.

Of course you all know a Leech, with its slug-like

body composed of ninety-five rings, and its strange triangular mouth.

There are sea Leeches as well as marsh Leeches. They move about more slowly, but have much stronger coats, as befits a creature that has to put up with the motion of the sea. One kind, the Albione—fishermen call it the Skate-Sucker—is generally found sticking fast to the poor skate. Another, the Branchellion, which has a sucker at each end, clings just as effectively to the Electric Eel; a fish about which I must tell you something—they are such very odd folk, at home in the rivers of South America. These fellows, sometimes five feet long, have the remarkable property of giving such a shock to any one touching them, that they can beat a retreat before their victim has recovered from it. The Indians say, that if they strike

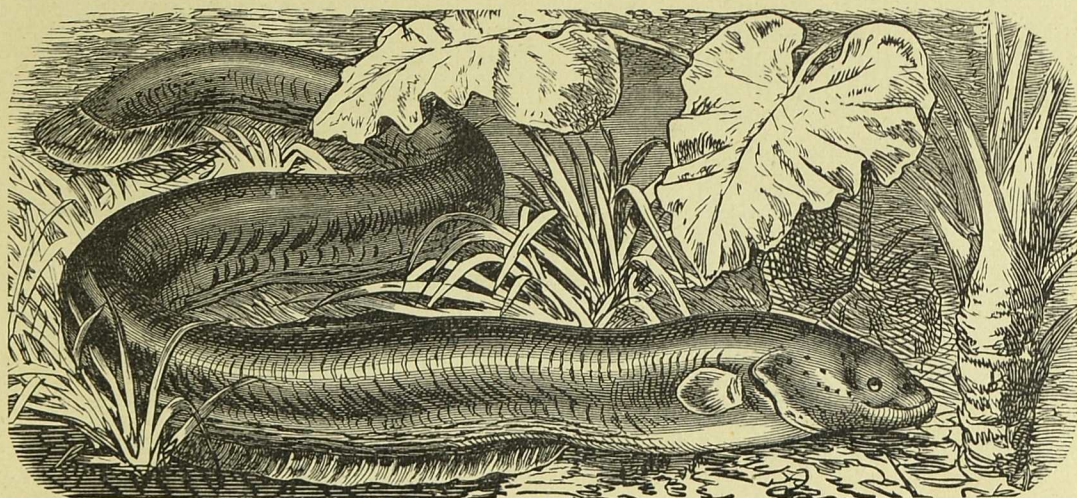
other fishes with a blow of the tail, they become at once immovable, and their helpless prey.



HORSES SHOCKED BY ELECTRICAL EELS.

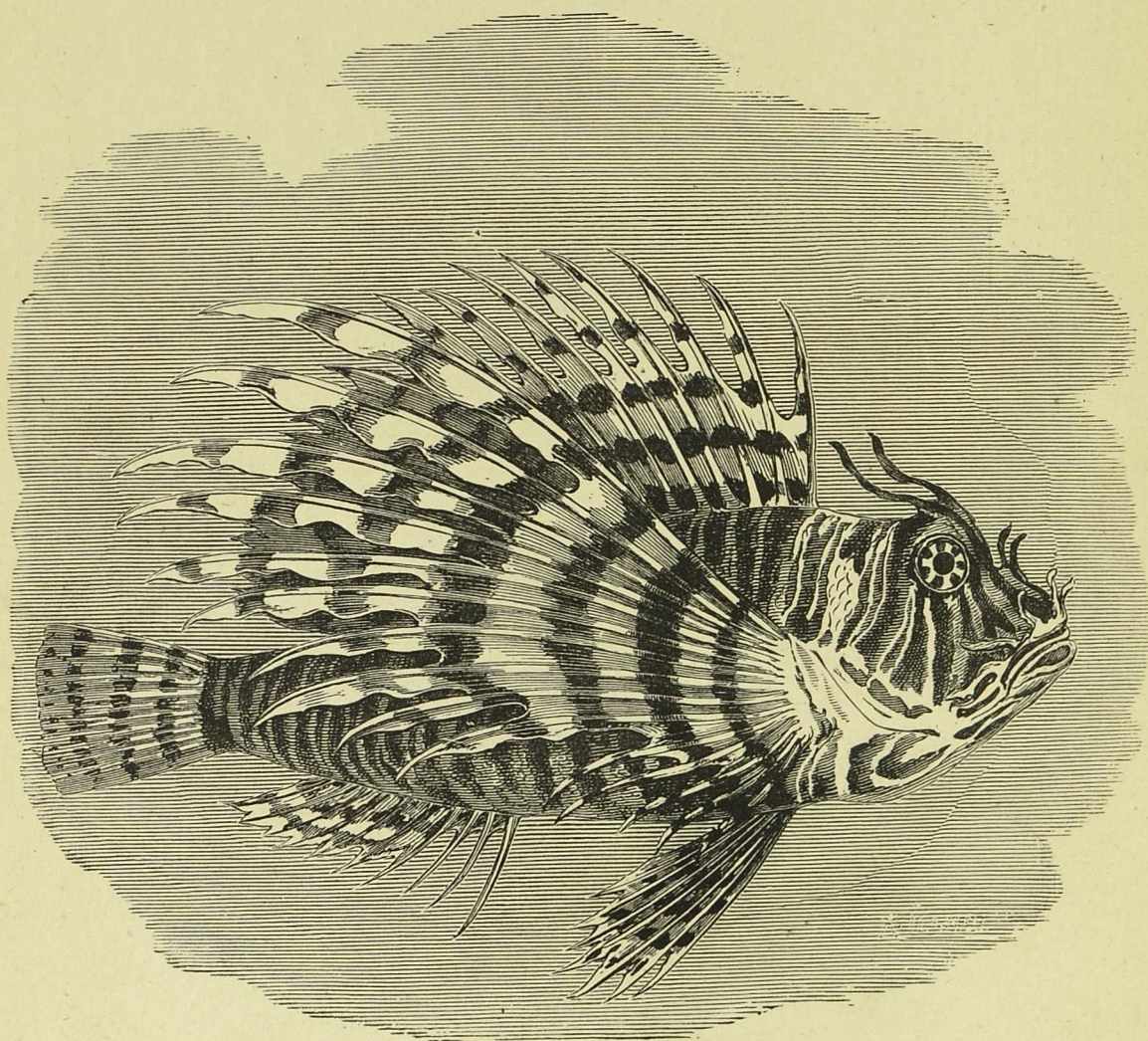
Here is an account given by a traveller who once saw the *Gymnotus* fished for by native Indians:—They brought thirty half-wild horses to aid in the capture, driving and pressing these in all directions, till they forced them into

the stagnant marsh where the Eels lay, then shrieking and shouting, they crowded round and cut off a retreat, beating and lashing in the air. Being armed with long canes and harpoons, they prevented the escape of the poor horses, which, half-wild with the electric shock they were receiving from the angry Eels, kicked and reared wildly to regain the bank. The scene grew indescribable, wild groups of Indians surrounded the pond, the horses, with bristling mane and terror in their eyes, tried to escape from the storm that had surprised them, the big yellow Eels, looking like great aquatic serpents, swimming on the surface of the water and chasing their enemies, were objects at once appalling and picturesque. In less than five minutes two of the poor horses were benumbed and drowned; but the struggle went on until the fish had spent their power and slunk away from their enemies instead of attacking them. They were then easily taken by means of small harpoons, tied to long cords, so that they could not communicate a shock to the hands hauling

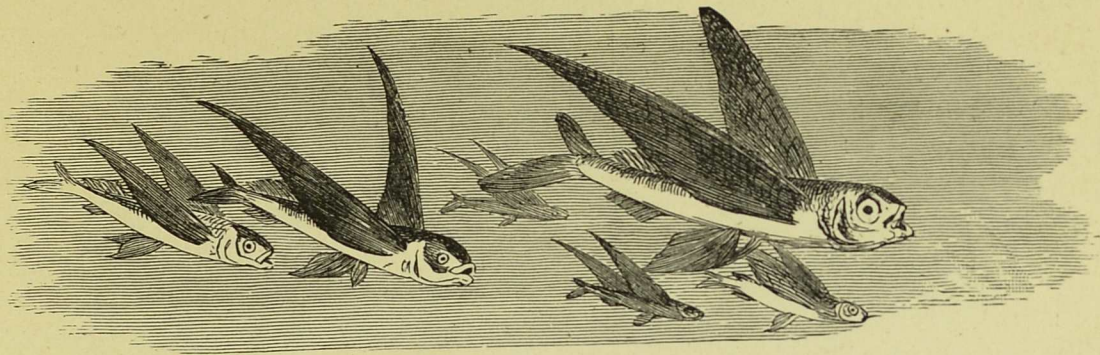


ELECTRICAL EEL.

them in. They were then dragged to little pools, but the Indians refused to touch them, even to remove the harpoon, which yet stuck fast.



THE FLYING FISH.

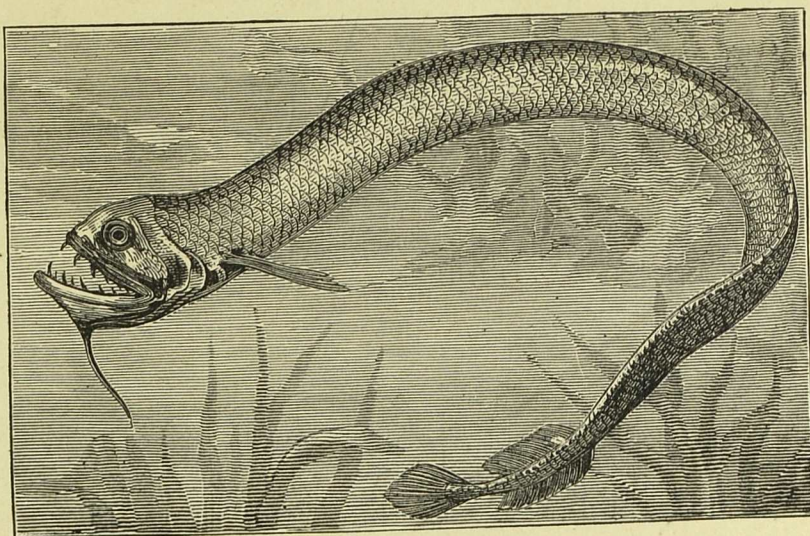


THE FLYING FISH.

When I have seen thy snowy wing
O'er the blue wave at evening spring,
And give those scales of silver white
So gaily to the eye of light,
As if thy frame were formed to rise,
And live amid the glorious skies :
Oh ! it has made me proudly feel
How like thy wing's impatient zeal
Is the pure soul, that scorns to rest
Upon the world's ignoble breast,

But takes the plumethat God has given,
And rises into light and heaven !
But when I see that wing so bright
Grow languid with a moment's flight,
Attempt the paths of air in vain,
And sink into the waves again ;
Alas ! the flattering pride is o'er :
Like thee, awhile, the soul may soar,
But erring man must blush to think,
Like thee, again, the soul may sink !

THERE are two strange fish which belong to the Pike family—one is this ugly, serpent-like Stomia, with its cruel sharp teeth and staring eyes, at home in the Mediterranean ; the other is well known as the Flying Fish. It seems funny to talk of a fish flying, but when you consider that this has very



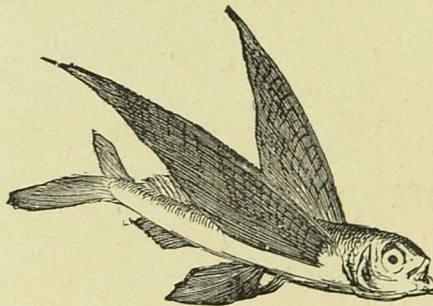
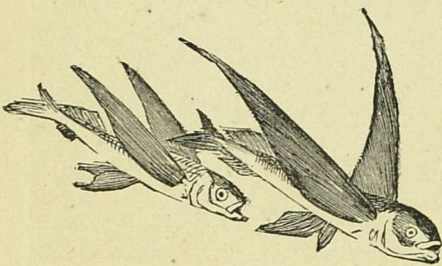
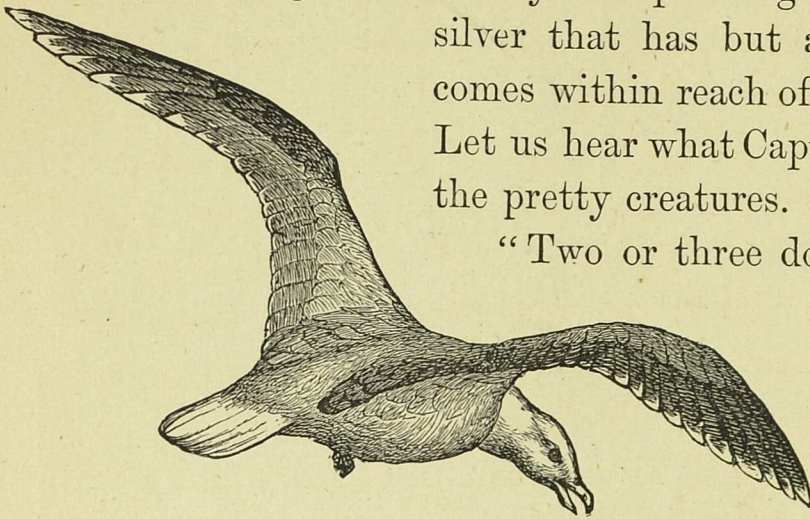
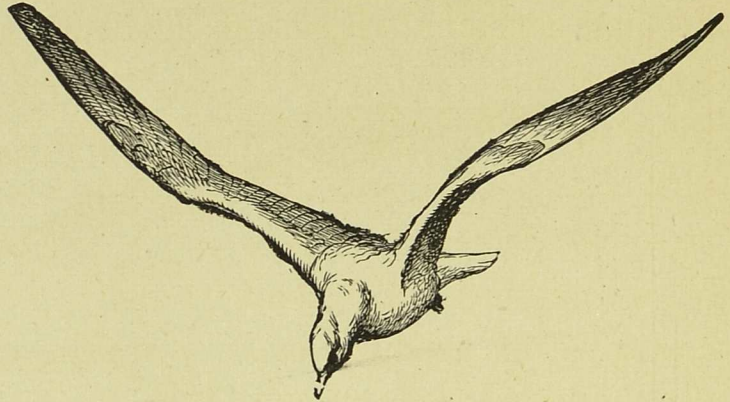
STOMIA.

large fins, which it can spread out, and that its flight is more like a series of long springs in and out of the water, the marvel is not so great as it at first appears.

Poor little fellow!

This peculiar power of flight exposes him to many dangers. Sharks and sea-birds are alike on the look-out to snap him up. He is so bright and shiny—a sparkling tit-bit of blue and silver that has but a poor chance if it comes within reach of their hungry maws. Let us hear what Captain Hall tells about the pretty creatures.

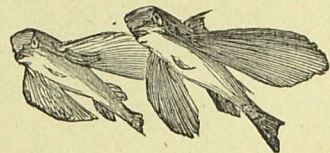
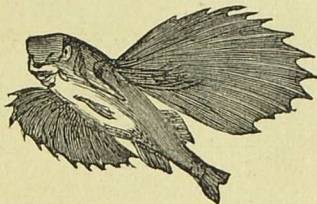
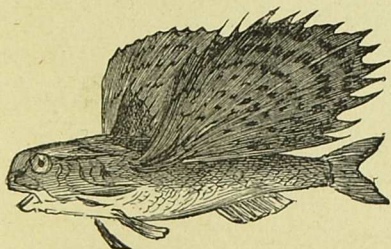
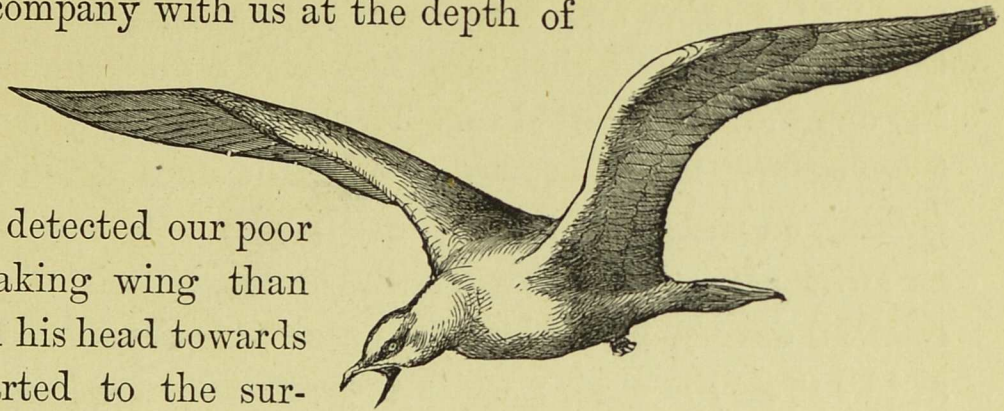
“Two or three dolphins, in all their beauty, had ranged past the ship. The vessel in her progress had put up a shoal of Flyingfish, which took their flight to windward; but a large dolphin, which had been



keeping company with us at the depth of two or three fathoms,

no sooner detected our poor friends taking wing than he turned his head towards them, darted to the surface, and leapt from the water with the velocity little short, as it seemed to us, of a cannon-ball. But, though the impetus with which he shot himself into the air exceeded the speed of the Flying Fish, the start which they had obtained enabled them to keep ahead for a considerable time. Dolphin's first spring could not be less than ten yards; then we could see him gliding through the water for a moment. Then he shot upwards again, to a greater height than at first, falling, of course, at a greater distance. In this manner the merciless pursuer seemed to glide along with fearful rapidity, while his brilliant coat sparkled and flashed splendidly in the sunlight.

"The group of wretched Flying Fish, thus pursued, at length dropped into the sea; but we all rejoiced to observe that they merely touched the top of the swell, and instantly set off



again in a fresh and even more vigorous flight. It was interesting to observe that they now took a different direction to the one they had started in. They had evidently detected the fierce enemy that was following in giant steps across the waves, gaining on them so rapidly. His pace was two or three times as swift as theirs, and when they varied their flight in the smallest degree, he, in less than a second, shaped his course so as to cut off the chase; while they, like hunted hares, doubled more than once on the pursuer. But it was soon evident that their strength and confidence were ebbing. Their flights became shorter and shorter, and their course more fluttering and uncertain; while the leaps of the dolphin seemed to grow more vigorous at every bound. This skilful sea sportsman seemed to arrange his springs so as to fall just under the very spot on which the exhausted Flying Fish were about to drop. We mounted high up in the rigging to watch the catastrophe, and at last saw all the unfortunate little creatures pop right into the greedy dolphin's jaw as they lighted on the water."





DOLPHINS.

DOLPHINS AND NARWHALS.

UNLIKE land animals, the mammals of the sea have had but little of the marvellous written about them, as a rule, but one exception is—

A shoal of Dolphins, tumbling in wild glee ;
Glowing with orient tints, they might have been
The rainbow's offspring.

Let me tell you the pretty Greek fable about the Dolphin.
Arion, one of the greatest poets and musicians of that wonderful mythological world of other days, of which some of

you may have read, had left his native isles, and travelled through Italy, where, by the magic of his soft voice and the tender melody of his golden lyre, he had enchanted all men, and won honour and renown. Then, determined to return home, he embarked on a vessel bound for Argos; but the sailors, or rather pirates, knew of his fame and riches, and determined to kill their hapless passenger and possess themselves of his gold. Without a cry for pity or an attempt at defiance, the gifted minstrel stood amid these armed, desperate men. He craved but one boon ere their cruel weapons despatched him.

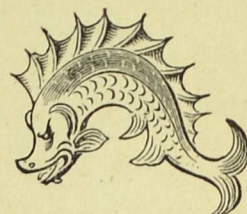
“Let me strike but once more the golden strings of my lyre; like the white swan the gods love, let me sing my own death-song, and I die resigned.”

They stood back, gloomily assenting to this; and high above the music of the splashing waves rose the soft sweet strains of the master—so tender and thrilling that the traitors listened in awe, breathless and delighted, and would, may be, have spared the singer for his song’s sake, but that they dared not. Some coward hand flung him overboard, still striking his lyre as he was engulfed in the blue Ægean Sea. He fell, but not to die; for in the wake of the vessel crowded a whole shoal of Dolphins, charmed by this mortal’s voice. One pressed beneath to stay him, and so received him on its back, where he sat in safety, playing airs of thankfulness and hope as the creature bore him in safety to the shore of his native land.

A quaint tale. But here is another almost as old, and quite as untrue, about a Dolphin; of which the ancients said: “Their voice resembled the pitiful groans of a man. They are

saddle-backed (ready for the first sea horseman), and all of them, after a wonderful sort, know the name Simo."

But now for my story, which you may believe if you can:—
"In the days of Augustus Cæsar, the emperor, there was a Dolphin entered the Gulf of Lucrinus which loved wondrous well a certain boy—a poor man's son—that used to go every day to school from Baranum to Puteoli. He was wont also about noontide to stay at the waterside and to call unto the Dolphin, 'Simo! Simo!' and many times would give him fragments of bread, which of purpose he ever brought with him, and by this means allured the Dolphin to come unto him at his call. Well, in process of time, at what hour soever of the day this boy lured for him, and called Simo, were the Dolphin ever so hidden in any secret or blind corner, out he would, and come abroad; yea, and scud amain to this lad, and taking bread and other victuals at his hand, would gently offer him his back to mount upon, and then down went the sharp pointed prickles of his fins, which he would put, as it were, within a sheath, for fear of hurting the boy. Thus when he had him once on his back, he would carry him over the broad arm of the sea as far as Puteoli to school, and in like manner convey him back again home.



HERALDIC DOLPHIN.

"But when the boy had fallen sick and died, yet the Dolphin gave not over his haunt, but usually came to the wonted place, and, missing the lad, seemed to be heavy and mournful again, until of very grief and sorrow he was found dead on the shore."

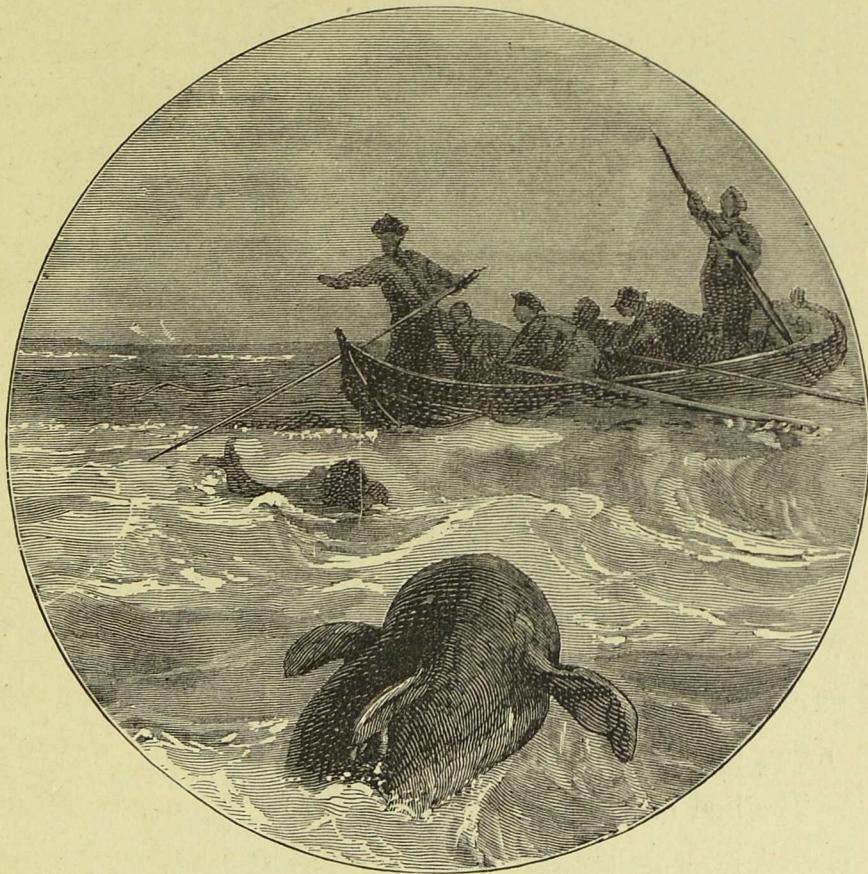
The ancients told other wonderful tales about this "pride and delight of the sea." It is also a favourite design in

heraldry, found on many a noble's coat of arms; and was the armorial ensign of the Dauphins of France. I am afraid that should you ever see one of these much over-lauded creatures, you will be very much disappointed at its long pointed snout and not very lovely body; but sailors look upon their appearance as a lucky omen. And they are by no means scarce; whole troops will follow a ship for days, bounding along in front of it, diving after and chasing each other rapidly, for they can swim more rapidly than a bird can fly, and are often harbingers of a fresh wind. If one of the party is caught, the others seem much disturbed. The old ones go off, but the young ones remain staring about them as though wondering what had become of their companion, and so often get captured themselves.

The inhabitants of the Faroe Islands are great Dolphin fishers, and the sight of a large shoal of these creatures rejoices the hearts of many poor fishermen. Women and children run through the streets crying "Gryndabud! gryndabud!" (The Dolphin! the Dolphin!); the fishermen run to launch their boats; and all is in an uproar in the bay. When all the fishermen are assembled, they arrange their boats generally into a sort of semi-circle, and drive the shoal into the end of the bay, capturing many between the boats and the land. Poor bewildered things, they have small chance, for on one side are the lances and fine-pointed pikes of the fishers, and on the other the shallow shores, on which they are so easily stranded. No wonder the waters soon become red, and that the victims may be counted in hundreds.

But well may the Faroese islanders rejoice at such a visit,

for the Dolphin's skin is made into leather, the flesh is set aside or sold for eating, oil is procured from the fat, and the dried bladders serve for vessels in which to keep it, so that nothing is wasted by these ingenious folk. The kind mostly venturing about this coast is the Round-Headed Dolphin, so

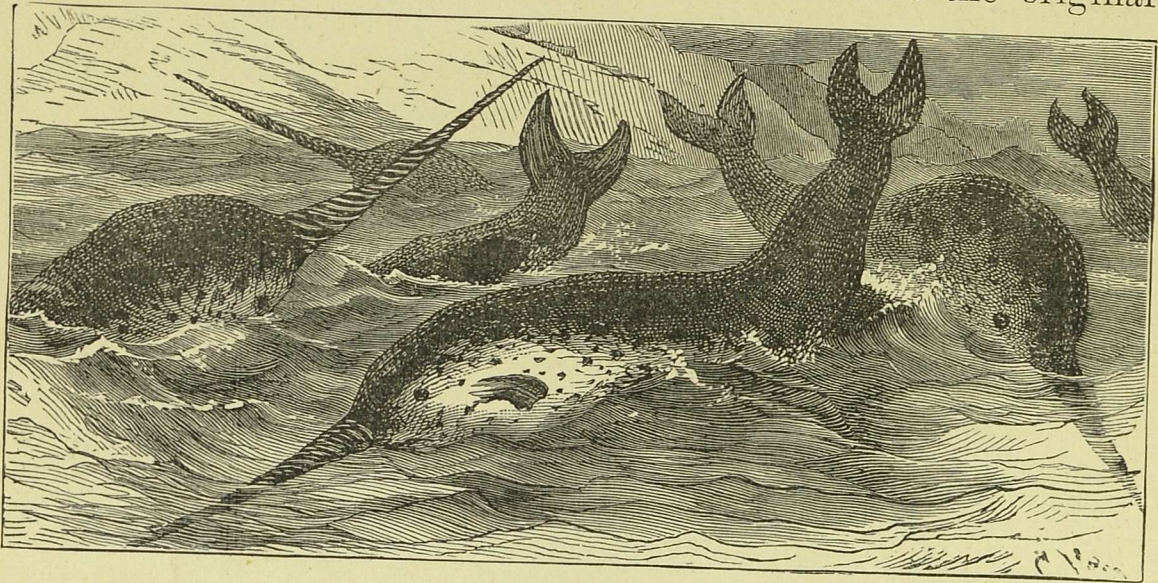


DOLPHINS FOLLOWING A BOAT.

called from the queer-shaped head, like a huge ancient helmet. They live in large flocks, under one leader. In 1805, three hundred were driven on to the coast of Shetland. Captain Scoresby tells us that he has seen as many as a thousand in one troop. Some of them have a good appetite, too, it appears, for on opening one of the largest specimens stranded on the

coast of Jutland, it was found to have devoured thirteen porpoises and fifteen sea-calves. It is said that a troop of this kind will attack the whale, that monarch of the seas.

Another bold, active member of the same family is the Narwhal, or Sea Unicorn. I think he must be the original

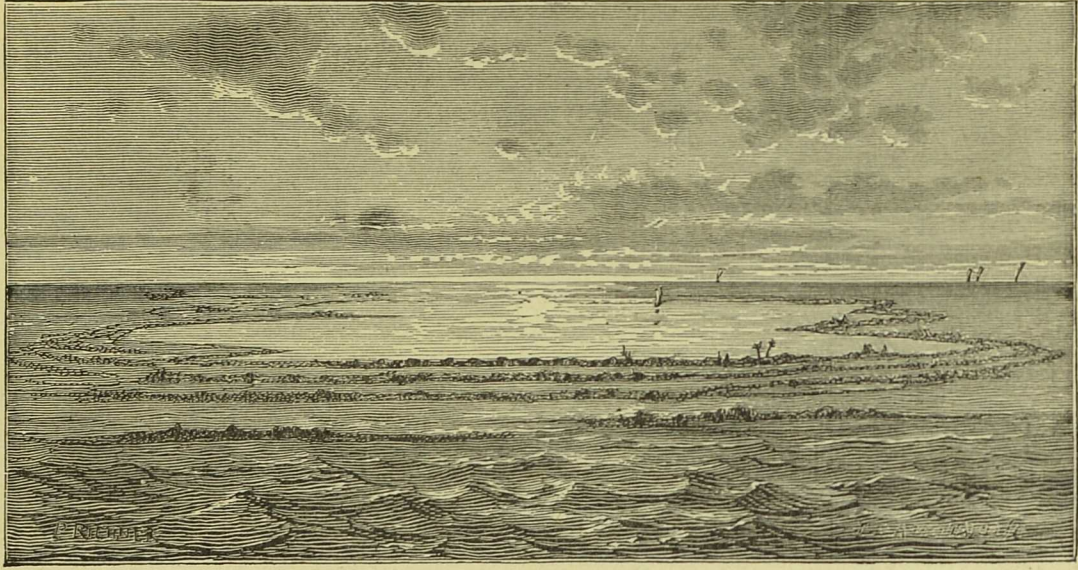


NARWHALS.

of that wonderful unicorn that, according to nursery lore, once had such a terrible fight with the British lion—

“The lion and the unicorn fighting for the crown,
The lion beat the unicorn all round the town.”

At any rate, when Pliny, the wise man of old, wrote a description of him, he said he had the head of a stag, the feet of an elephant, and the tail of a wild boar, yet after all resembled most a horse, with a black horn springing from its forehead. A wonderful creature, surely reminding one of that heraldic unicorn. Perhaps you would like to see a picture of what he is really like, as he flounders about in the northern seas, making a most extraordinary gurgling noise.



A CORAL ISLAND.

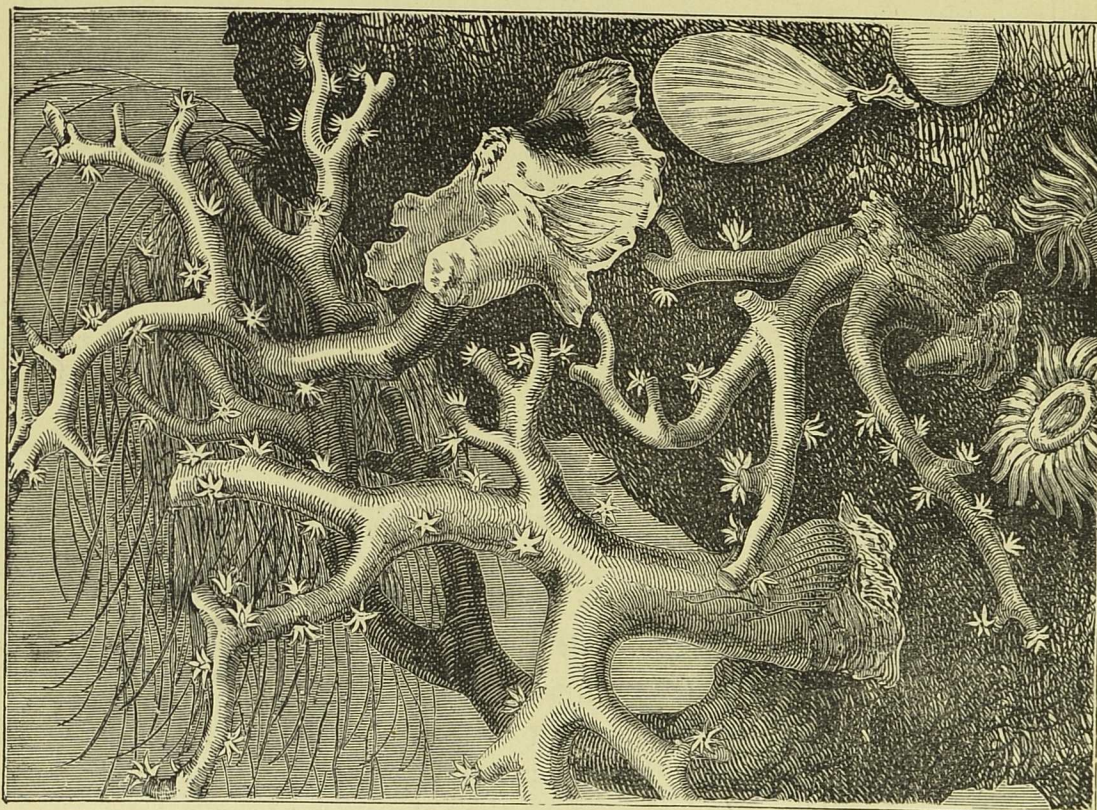
CORAL.

“Far down in the depths of the dark-blue sea
An insect train works ceaselessly ;
Grain by grain, they are building well,
Each alone in its little cell ;
Moment by moment, and day by day,
Never stopping to rest or play,
Rocks upon rocks they are rearing high,
Till the top looks out on the sunny sky.
The gentle wind and the balmy air
Little by little bring verdure there,
Till the summer sunbeams gaily smile,
On the birds and flowers of the little isle.”

SEEKING for Odd Folks, let us turn to coral—that wonderful production of the waters, which at one time was thought to be a marine plant, but is now known to be animal. The Greeks and Romans admired and valued it highly, and spoke of it as “the daughter of the sea.” A pretty ancient myth illustrates

the combined mineral and vegetable nature of the well-known, red coral, to which it alludes.

Perseus, son of Jupiter, having slain Medusa, that dreadful Gorgon, the sight of whom turned men into stone, escaped



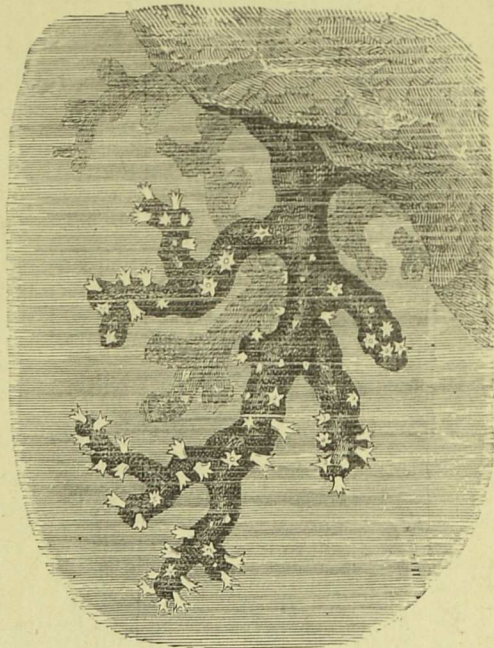
CORAL INSECTS.

across the deserts of Lybia; and from the drops of blood that fell from her head arose the innumerable serpents which have for ages infested these plains. After many adventures he finally flung his trophy into some shallow waters, where, resting on some foliage-covered rocks, it tinged them crimson, and hardened them into stone.

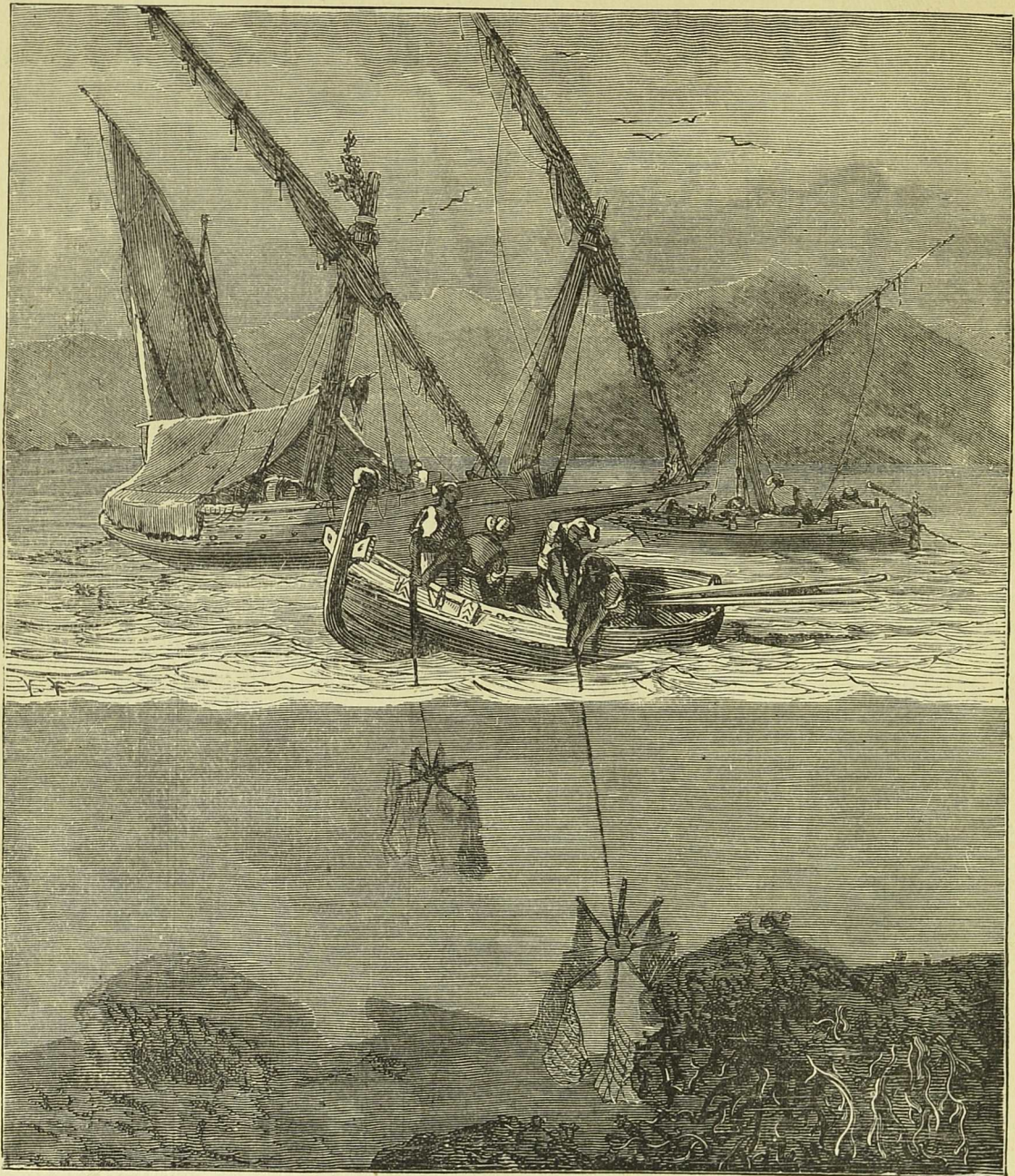
This strange coral was always very much at home in the

Mediterranean and Red Sea, where it lay flourishing in any quantity, but the getting at it was such hard work that it was said to be a task fit only for slaves and thieves, though I have no doubt plenty of honest men engaged in this peculiar fishery, as it is called, and which resembles nothing else of the kind excepting perhaps that of sponge. In some places coral is fetched up by divers; but the Sicilian mode of obtaining it is the commonest and simplest. The boats sail from their ports at certain seasons and remain moored for a long time near the spot where the coral is to be found. The men are provided with food, clothes, and necessities, and paid so much a month for the work they do.

The coral lies, forming a kind of stony forest, not at the sea bottom, or on sand, or mud, but on the sloping sides of submarine rocks, where it looks like clusters of pretty leafless shrubs, half a yard high, generally growing downwards, and all covered with tiny starlike flowers, which are the coral insects, or polypi, themselves. To obtain some of these stony branches, a long cord is fastened round several pieces of wood crossed in the centre, and having long loose pieces of netting or lines fastened to them. These are intended to grapple with any uneven branches they may meet with. Then a heavy stone is fastened to this "engine" to



RED CORAL IN THE SEA.



FISHING FOR CORAL ON THE COAST OF SICILY.

make it sink, and it is guided to a place, let down, and allowed to entangle itself among the stony twigs and branches below. After a time a sharp tug is given and the smaller bits break

off; but it requires many a long and hard pull before the larger branches are loosened from the rocks to which they have attached themselves; and the more rocky and uneven the bottom is, the better the coral, which is classed as red, black, and white; a pale, flesh-coloured kind being the most rare and valuable. When the coral is taken from the water, the flower-like mouth folds its eight petals and soon fades and dies. The coral itself is as hard as marble.

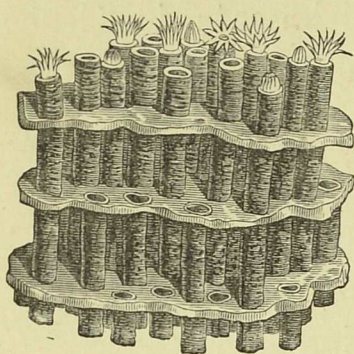
There are large coral-working establishments in Genoa, Leghorn, and other towns in Italy, where hundreds of women are busy cutting, piercing, and rounding little bits of coral into beads of all shapes and sizes. I do not know whether it is because of the ancient Roman superstition that coral was an amulet pleasing to the gods and a charm against all evil spirits, and that it protected infants from disease, but mothers all the world over delight still in decking their children in these pretty things. It is used for all kinds of decoration, jewellery, and other ornamental articles. In the Paris Exhibition there was a set of coral chessmen sold for £400. Beads are great favourites in necklace-loving India, and are worn in Russia as funeral ornaments; so that no doubt the fishers find a good market for their treasures.



CORAL INSECT.

As we know, the ocean depths vary, but the coral builders (classed as *Zoophytes*, or animal plants) find that the situation best suited to their welfare lies within a limited and definite range, which never extends beyond a certain depth, and no

living reef-building coral insect is ever found below it. But of course we must not forget that all these insects are not reef-builders. The red coral of commerce, for instance, of which I have been speaking, never accumulates in reefs or banks. Yet the great extent of these reef formations has ever been a source of wonder to navigators. Along the western coast of New Caledonia is one reef 400 miles long, and along the north-east coast of Australia is another of more than 1,200



THE SEA ORGAN.

miles; while to innumerable little workers, toiling for countless ages, we owe almost all the beautiful islands which stud the tropical portion of the Pacific Ocean.

So few of us ever get a chance of observing such sights, that we may be glad to hear what a lady, who once went out with some clever friends dredging about among the coral reefs of Florida, can tell us of her experiences:—

“They were all so busy, that it seemed to me I was helping (which is the way with a great many people who stand and look on and feel as if they did all the work); but one thing I did do well, and that was to watch the big dredge dragged up, all dotted over with the beautiful things it had brought us from the ocean depths. This dredge is a big, strong, heavy net, fixed upon an iron frame, and it is flung over the side of a vessel and allowed to drag slowly along the sands and rocks, where it scoops up all sorts of queer objects. After a time it is hoisted up and its contents examined, some of its captures thrown back again into their

watery home, others put into basins and bowls, to be admired and puzzled over at leisure.

"I wish you could have seen how curious and wonderful our collection soon became. Such numbers of little red shrimps



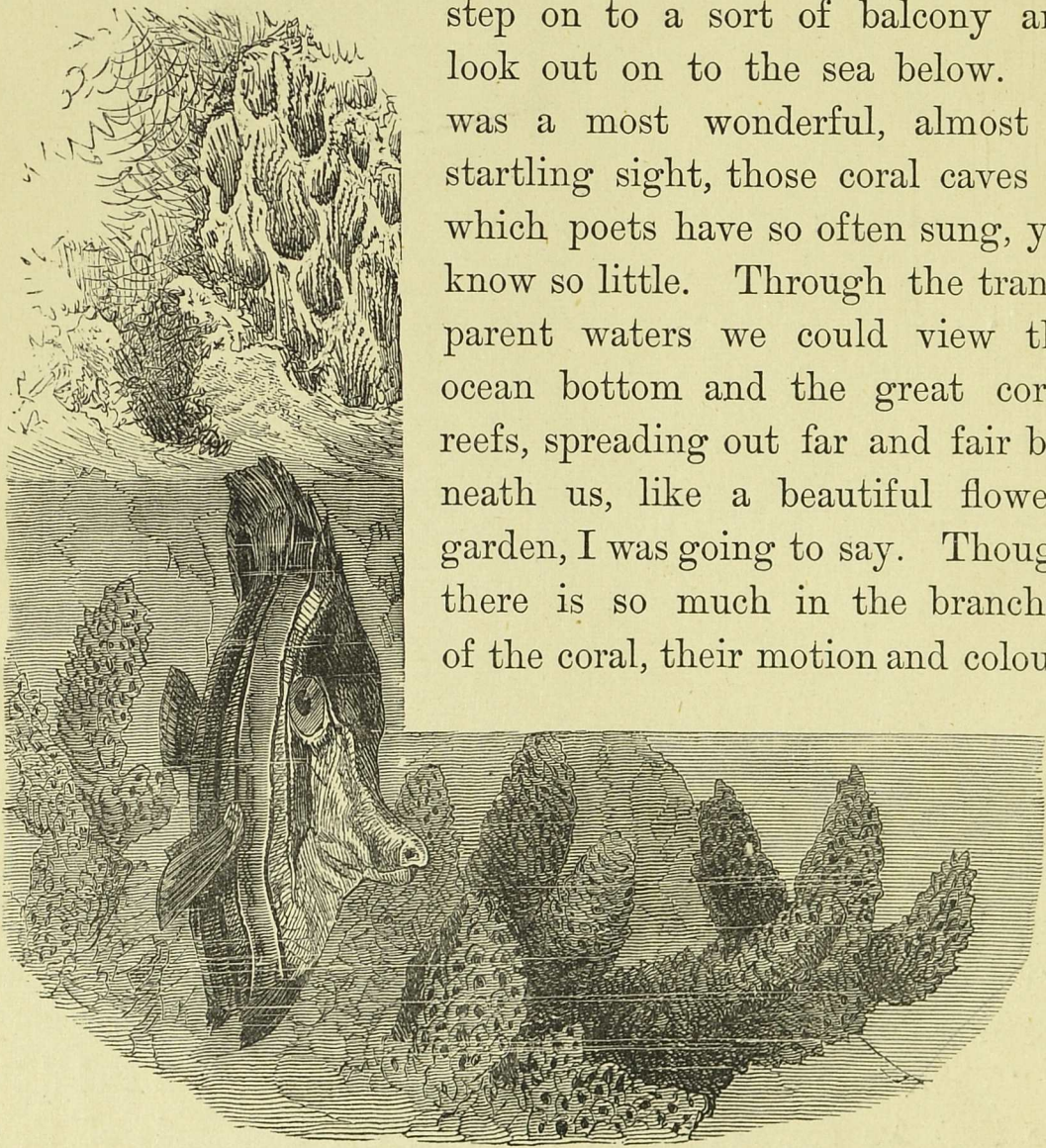
CORAL INSECTS AT HOME.

with blue eyes, that darted in and out among grottoes of purple, crimson, and orange sponges; tiniest sea urchins still packed tightly in the rough pieces of broken rock in which they had come on board; and, above all, corals, far more like blooming flowers than the living animals they really are.

"There was one, a pure white cup kind, so fragile and delicate that we scarcely dared touch it, the thousands of tiny

tentacles or feelers forming the life of this strange blossom, spread out in constant restless motion, no doubt seeking for food to us invisible, or lying folded like a rich-coloured lining against the inside of the fairy-like cup—a home of which they themselves formed part.

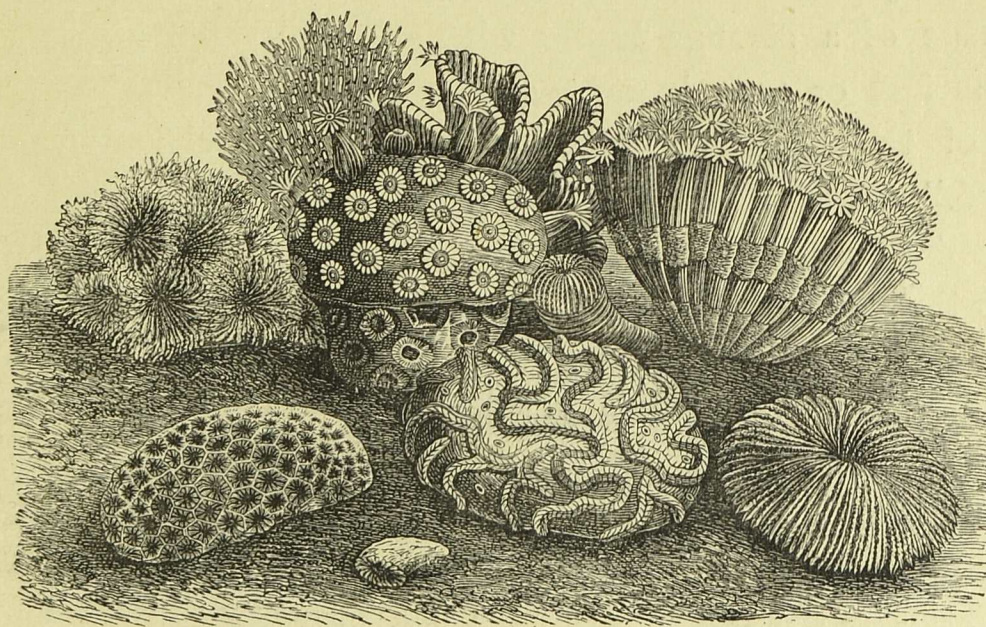
“During our excursion we stopped at a lighthouse on a coral reef, and the keeper invited us to step on to a sort of balcony and look out on to the sea below. It was a most wonderful, almost a startling sight, those coral caves of which poets have so often sung, yet know so little. Through the transparent waters we could view the ocean bottom and the great coral reefs, spreading out far and fair beneath us, like a beautiful flower-garden, I was going to say. Though there is so much in the branches of the coral, their motion and colour,

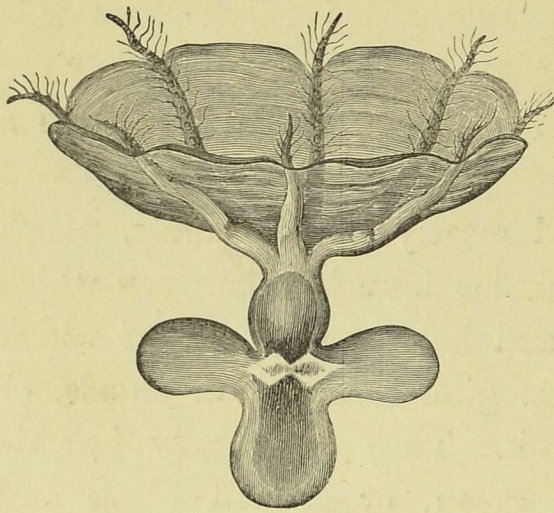


which reminds one of earthly plants, yet I think there is a glory of the sea as there is a glory of the land, and they are not the same, for nature has spread her ocean floor with a beauty all its own.

“Here the ‘field’ consisted mostly in leaf corals, which seemed to grow in large, broad, flat branches, between which there were many shady nooks and holes, in and out of which darted hundreds of little fishes, gliding about in shoals, or playing merrily at hide-and-seek. They were very bright-coloured, generally blue, red, green, or striped black and yellow. When a very big fellow came by, it was funny to see how the little ones scattered, splashing in every direction, and hid, peeping out from under the coral branches.”

In the afternoon the party went out in a boat, and, armed with crow-bars, boat-hooks, and whatever other means they could get hold of, they floated over the reef, collecting bits of





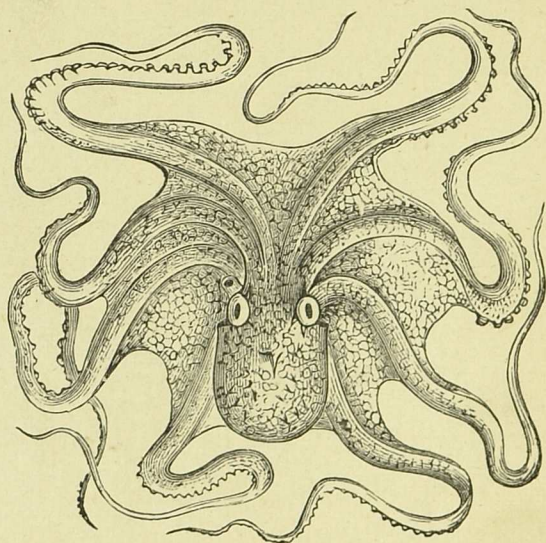
A PECULIAR FISH.

coral. Besides the leaf coral, there was brain coral, and astrea or star coral, and porites, in little tufts as small as your hand, or in masses as big as your whole self; plenty of the hard little branches or finger coral; and brown, green, and purple sea fans, flexible and soft, which stand upon the ocean bed on

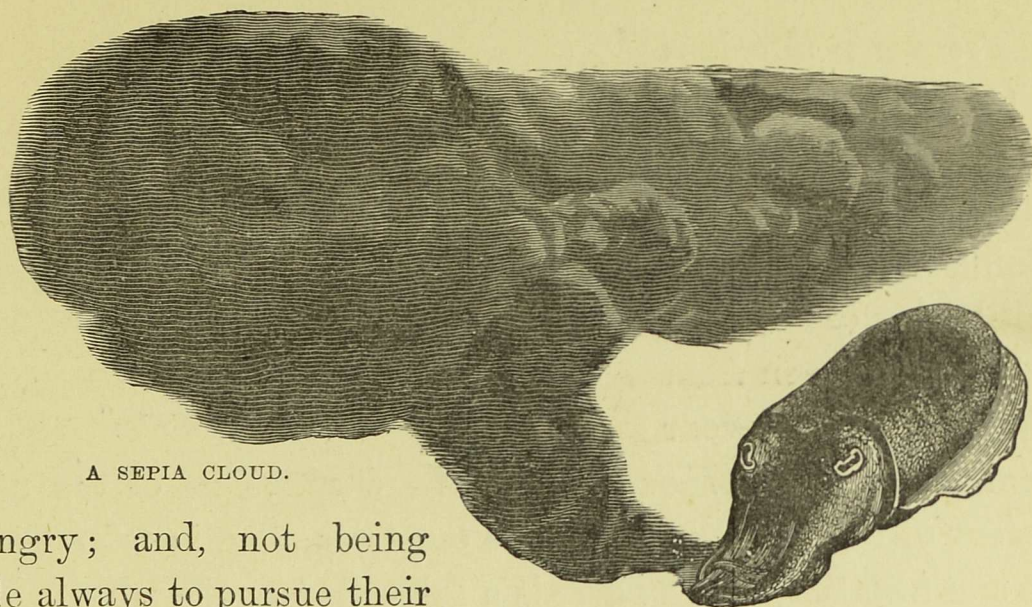
something that looks like a root, their spreading leaves waving with the constant motion. Altogether it was a glorious sight, this vision of "coral, and sea fan, and tangle, the blooms and the palms of the ocean."

Is this a pretty lilac garden flower dropped by mistake among my Odd Folks? No, it is a *Cephalopod*—that is, one member of a strange family with a long name which simply means feet or arms branching out of the head, or "head-footed."

But you will know better what the Cephalopods are like when I mention that the Cuttlefish are of the family—those strange hungry creatures some call "the tigers of the sea," because they love killing all they can, even when they are not



THE COMMON OCTOPUS.



A SEPIA CLOUD.

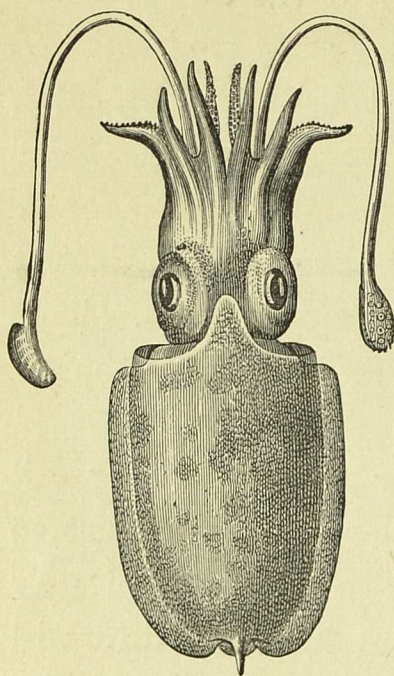
hungry; and, not being able always to pursue their swift victims, they lie in ambush; pushing their ugly, cold, soft bodies into crevices, and keeping their long limbs all ready, they watch with wide, ugly, open, staring, yellow eyes, and the moment any creature comes near enough, out pop the cruel arms, and it is clutched and dragged to the horny, beak-like mouth, to be devoured. Some of these arms are furnished with hundreds of suckers and sharp bent hooks, which catch and hold their prisoner. They swarm in many seas—some upon the coast, some in the deep water.

Another funny fact is that, when they choose, some Cuttles can stain all the water about with a thick compact cloud. This ink, taken from the creature's body and dried, forms "sepia," which you have in your paint-boxes.

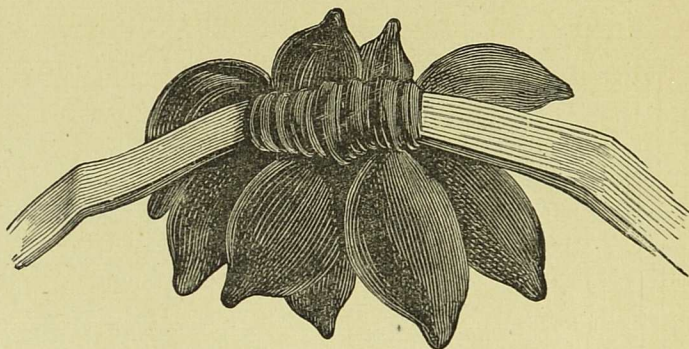
In the spring-time fishers find in their nets what they call "sea grapes," but they really are Cuttle-eggs sticking fast to some kind of weeds. Lying on the yellow sands you may often pick up a Cuttle-bone, which ground into fine dust will make an excellent tooth-powder.

Frequent allusions to Cuttles are made by old naturalists—of their fearful doings in detaining ships, sinking boat-loads of sailors, and carrying men from off the sands to devour

them in some cavernous den of the deep. One of the most ancient of these accounts that we can trace says, in reference to the seas near Smyrna: "There is a fish called a pulp, which floats upon the surface of the water like a slimy scum, and when turned appears to be an animal, with many long legs like that of a spider, and at each leg a bag full of liquor like water. It is of different colours, according to the season and nature of



THE ELEGANT CUTTLE.



A BUNCH OF "SEA GRAPES."

the soil. It catches its prey with its legs, and frequently drowns men who have the misfortune to meet with it as they wash in those seas; for it not only holds them fast with its long legs, but by diffusing a venomous liquor deprives them of motion, and raises inflammations in the part it seizes."

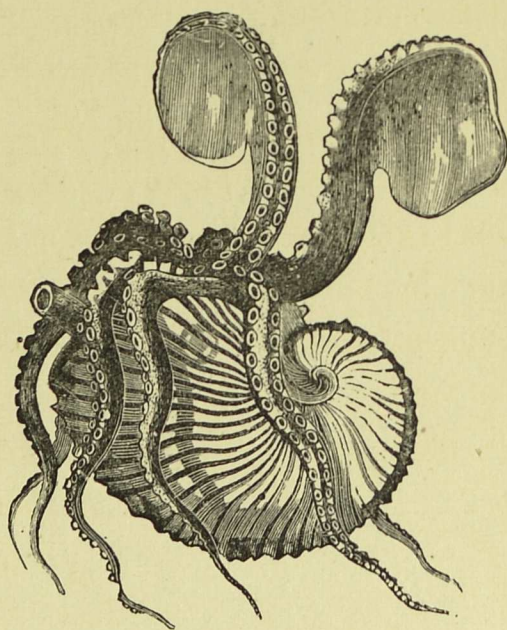
All this sounds very much like exaggeration; yet it is stated that some time ago two fishermen in Conception Bay encountered a Cuttle, the body of which was sixty feet in length. It threw two of its tentacles over their

boat, and had they not on the instant severed the arms with an axe as they lay over the gunwale, it would have dragged them to the bottom. A tentacle of this monster is in the museum at St. John's; it is thirty-five feet in length, broadening out like the blade of an oar towards the extremity, where it is nearly seven inches in circumference. Think of that for a Cephalopod!

It seems curious to mention the pretty Paper Nautilus as one of the Cephalopods, for, as it floats gracefully on the surface of the waves, trimming its tiny sail, and looking like the king of the sea-fairies gliding along in his car, nothing could remind one less of the staring octopus; yet, like it, it has eight limbs, and changes colour when angry or alarmed. The Roman sailors looked upon it as a good omen. The sight of it gave promise of a prosperous passage, so they hailed it saying—

“O fish justly dear to navigators, thy presence announces winds soft and friendly; thou bringest the calm, and thou art the sign of it.”

I do not suppose any of us will ever see any of these pretty creatures alive, for they are timid and cautious, and no wonder, for their tiny homes are very thin and fragile—they are by no means safe in them unless they hold fast to the shining silvery walls. When startled, they gather in their



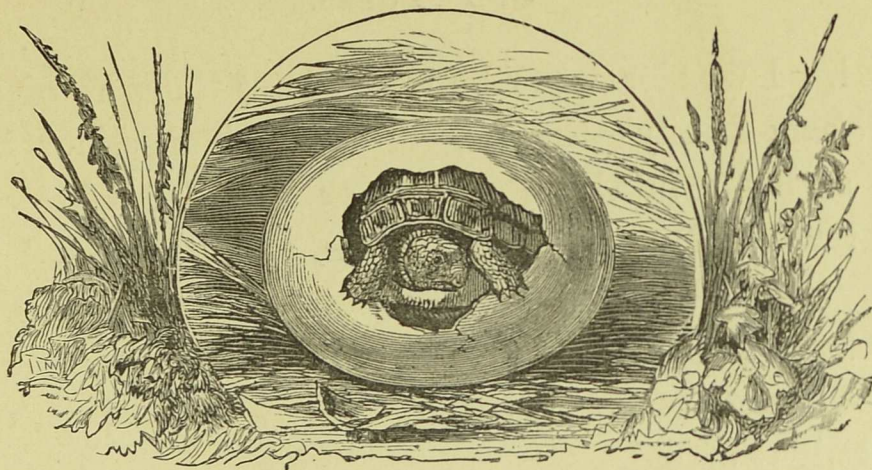
THE NAUTILUS.

sails and arms, which causes the shell to sink out of sight in a moment. They usually live in families far away from shore: even there it is only by the fading sunset that they float on the tranquil waters.

“Light as a flake of foam upon the wind,
Keel upward from the deep emerged a shell,
Shaped like the moon, ere half her home is filled,
Fraught with young life, it righted as it rose,
And moved at will along the yielding water.
The native pilot of this little bark
Put out a tier of oars on either side,
Spread to the wafting breeze a twofold sail,
And mounted up, and glided down the billow
In happy freedom, pleased to feel the air,
And wander in the luxury of light.”

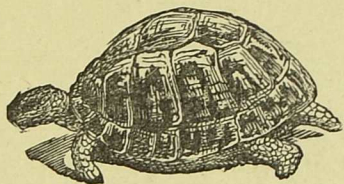


INDIANS SHOOTING FISH.



TURTLES AND TORTOISES.

“How much be yon odd-looking things, and what’s they for?” asked Hodge, the west-countryman, stopping agape before a large barrow, on which were some Tortoises for sale.



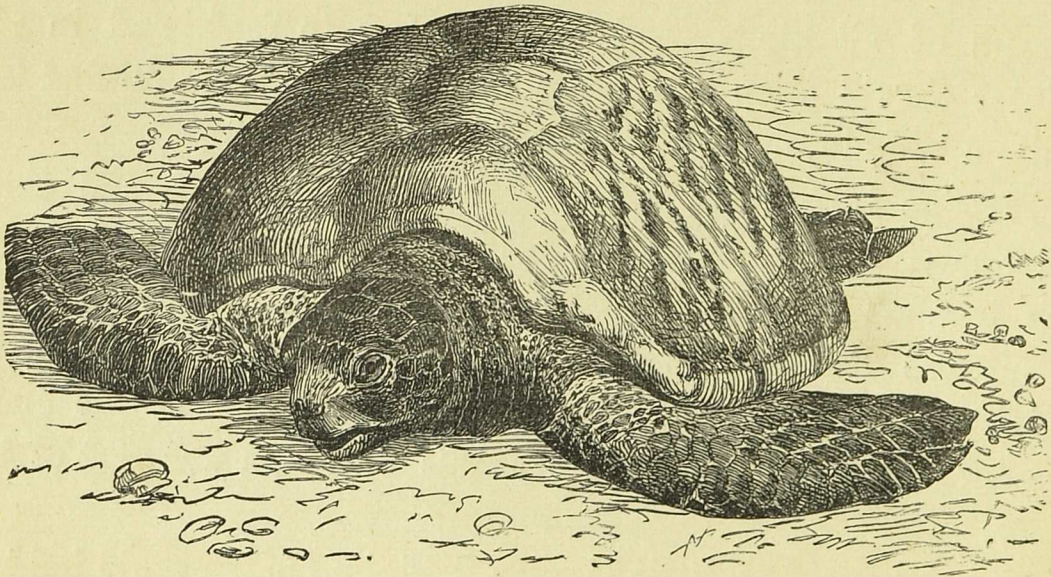
“Two shillings each—and cheap,” said the vendor, promptly. “They’ll keep your garden clear of mischief—beetles, slugs, insects of all kinds—and cost nothing to feed, and in the winter they’ll sleep till spring wakes ’em up. You’ll find ’em quite a bargain, master.”

Hodge turned “a bargain” round and about, and then, after careful examination, offered eighteenpence for it without the box. “Anyway, I’d like to see him unpacked; though I suppose he’s a sort of frog,” he added, innocently, little thinking that the “box” was part and parcel of the queer creature before him, as much as his own skin was part of his body.

That was only a little Garden Tortoise Hodge could hold in

his hand. I wonder what he would have thought of some of the *Chelonia* family—the Logger-headed Turtle, for instance, mostly at home in the Red Sea or far-off Madagascar. It weighs three or four hundred pounds, and its “box” is made of horny plates—the well-known tortoise-shell of commerce. Or the Green Turtle, often ever so much bigger; and the curious Hawksbill, with its mailed back, as neatly overlaid with armour as any knight of old.

I have heard a funny story about an Indian who when out fishing happened to see a huge Turtle asleep on the water. He paddled very cautiously until close to the dreaming giant, and then suddenly passed a running noose over its fins, having first fastened the end of the long line to the prow of his canoe. But the captive Turtle woke with a start, and not liking his position started off in a hurry, dragging the boat after him as if it were a straw, and it was as much as our startled Indian could do to hinder his frail canoe from being instantly



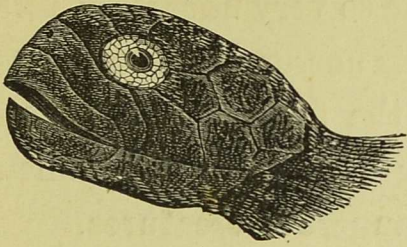
capsized. He paddled his best after the Turtle, but it was of little use, for very soon, in spite of his efforts, he was tipped out, losing his knife, his lines, and his paddles—almost his life, for if he had not been a good swimmer he would have lost his canoe at once and been drowned. Fortunately, being a first-rate diver, he managed to clutch hold of his flying boat and to reseat himself in it, but having no paddle he had no command over the light vessel, and having no knife he could not cut the cord that bound it to the turtle, so he just had to sit still as best he could, rolling this way and that, the waves playing a regular game of pitch and toss with him. The huge Turtle held its course, frightened along, no doubt, by this strange weight bobbing behind it, until at last wearied and exhausted it neared an island, and crawling to a rock landed itself and the poor famished, half-drowned fisherman who had followed so unwillingly in its track. These poor Sea Turtles are very helpless when upon land. In the water they can glide about swiftly, using their arms as oars. Sometimes hundreds of these creatures may be seen floating asleep on the surface of the sea, rocking on the waves like children in a cradle. They are caught thus by expert Indian swimmers, who creep through the waters and secure them by the fins, or harpoon them before they have time to awake and sink. There are Land Tortoises which in many places are sought after by cooks, but the small Marsh Tortoises that feed on tiny animals and can walk upon dry ground, may swim on the waters and wander about the banks of rivers unmolested, for they have neither pleasant taste nor smell. Like the Mud Tortoises found in the south of Europe, they live in the mud at the bottom of marshes,

lakes, and ponds. We only get a peep at them when they come up to the surface of the water for a breath of fresh air. The River Tortoises live regularly in the water during the day,



GIVING HIM A TURN.

only in the dark night-time, when all seems safe, they will come scrambling up and seek rest on some islet or log of floating timber, but at the least alarm they drop back into the dark waters, and then "Catch who can!" Some of these River Tortoises that are hungry, and wage active war with all the



TURTLE'S HEAD.

fish and reptiles in their neighbourhood, and are themselves angled for with hook and line. When seized, they will dart out their heads and snap and bite at whatever they can, holding on till they have bitten out

the piece. No wonder that they are called "Snapping Turtles," for they have been known to snap off offending fingers and toes.

We have all heard of Turtle soup, and know that it is an expensive dainty usually served up at grand feasts. It is made from the Green Turtle found floating asleep on the waves of the Atlantic. I believe this soup was never heard of in England before Admiral Anson introduced it, about 1752. Now no City dinner would be complete without it; in one taste, at least, the Europeans and Indians agree, for they all think it a great dainty. Indeed, in many parts of the world it is quite a necessary, and luckily very common.

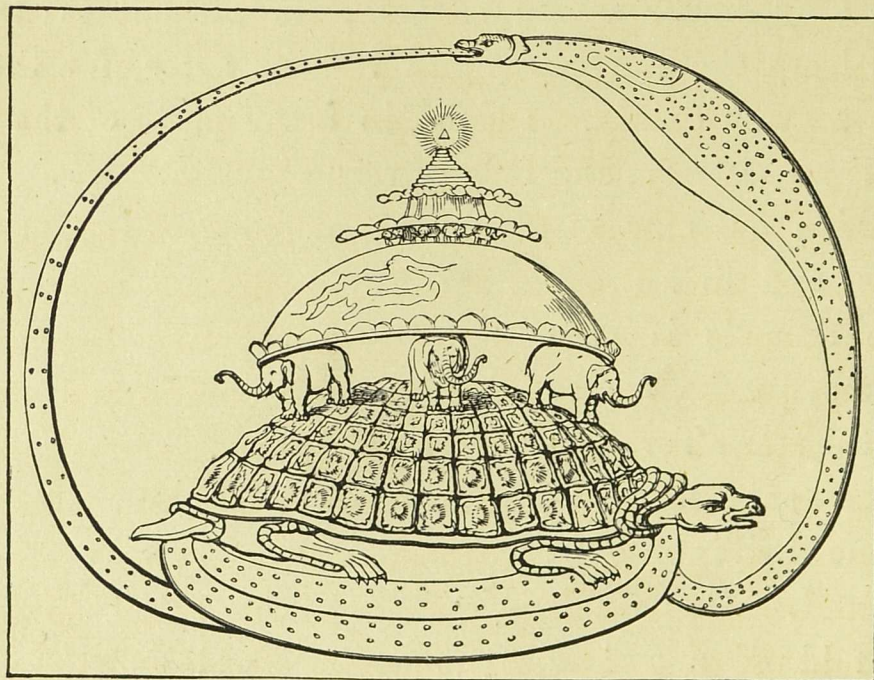
In China you may often see sacred columns supported by Tortoises, and to kill one of these animals is considered most unlucky; so that for the many Tortoise-shell ornaments made in Canton the shell is brought from abroad. One tradition is told of a certain rash man, who, having discovered a great number of Tortoises, killed them and



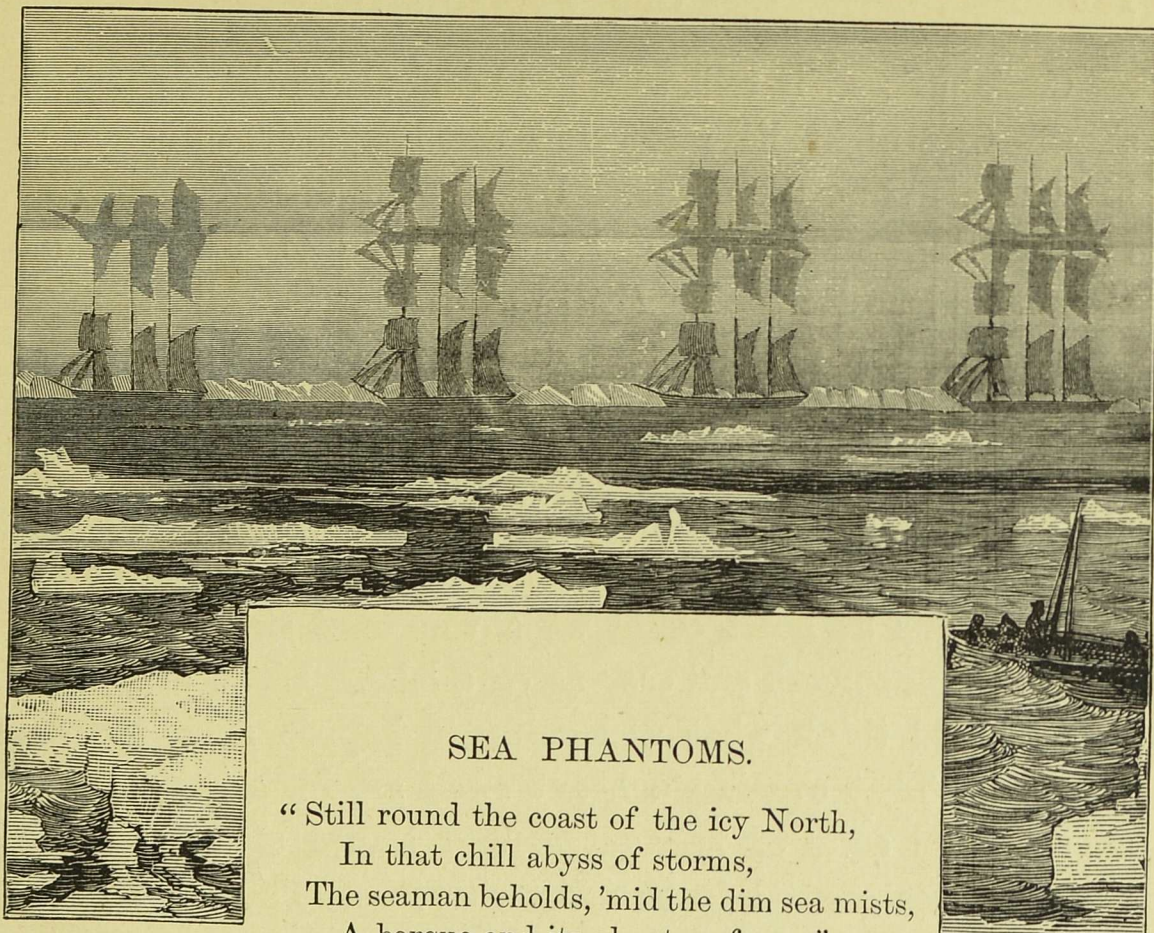
A SNAP CATCH.

sold the shells. His back shortly became so very uncomfortable that he got into a warm bath, when, to his horror, he found himself gradually hardening and assuming the form of a Tortoise. No wonder the discovery killed him, or that other Chinamen should not care to interfere with such dangerous creatures.

In some countries Tortoises are respected as the symbol of strength and creative power. See, here is a drawing by a Brahmin, representing one, resting on a coiled serpent, which, having neither beginning nor end, is the Indian symbol of eternity. Those are the three worlds resting on the Tortoise's strong back; the triangle surmounting all is the symbol of creation.



THE HINDOO SYMBOL OF ETERNITY.



SEA PHANTOMS.

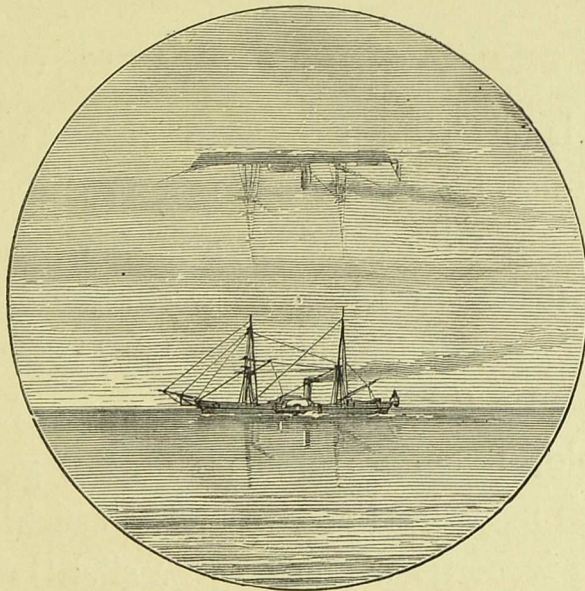
“Still round the coast of the icy North,
In that chill abyss of storms,
The seaman beholds, 'mid the dim sea mists,
A barque and its phantom forms.”

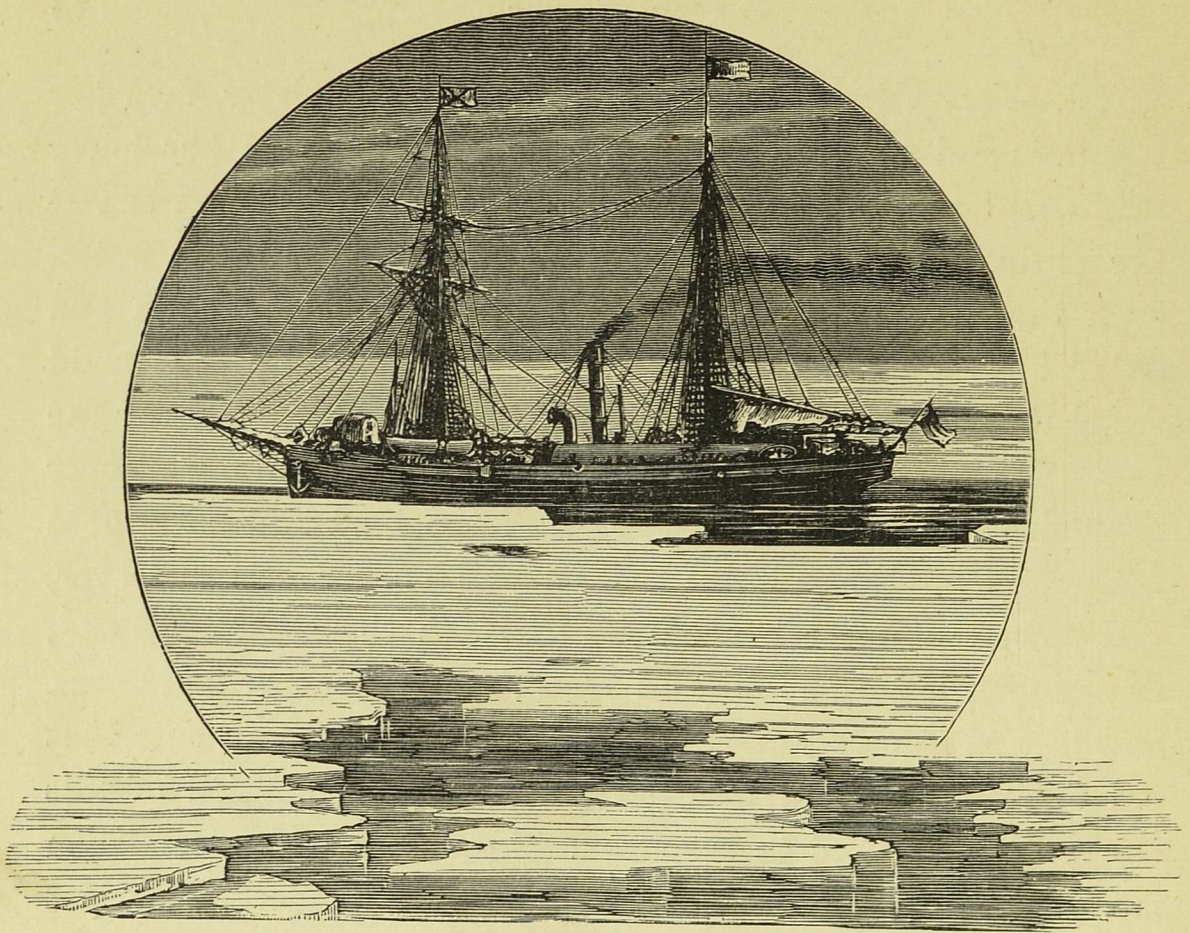
PHANTOM ships—those Flying Dutchmen which have so often puzzled the sailors on the Northern seas—are really the refracted images of other ships generally too distant to be themselves seen. I wonder if you will understand me when I try to explain this wonder by telling you to put a shilling in a basin or tea-cup, and then to stand so that you cannot quite see it except by moving your head a little forward—the least move, mind—then get some one to fill the vessel slowly with water, and you will see, without moving at all, not the shilling itself, but its exact reflection, and even that of the bottom of the cup. Try this for yourself, and, perhaps, seeing this will make you understand what refraction really is.

Captain Scoresby tells us a good deal about these phantom ships. One night he recognised the image or reflection of his father's ship, the *Fame*. By the aid of a telescope he could distinguish each sail and the rigging of the vessel. He afterwards learnt that the *Fame* was at that time thirty miles away, seventeen miles beyond the line of the horizon, and certainly beyond any ordinary chance of being seen.

Here is an old seaman's yarn about such a sight that he saw off the coast of Africa. He told it most impressively, and evidently thought it a very solemn fact:—"The morning was as fine a one as heart could wish, the wind steady, and the vessels going smooth and easy as on a lake. Little did any of us on board think what was going to happen afore the day was out. That evening a heavy swell set in, shoals of seals appeared, all sorts of fish darted and leaped about uneasily, the whole sea seemed to be astir with life. Then just as the setting sun dropped into the sea, a bank of dark cloud rose eastward so rapidly that I never saw the like, and it covered the whole sky, hiding the sun's last rays in a kind of red haze, so that it looked as if the earth might be afire; and it kept that strange, gruesome sort of look even when the moon came out. Of course, we old sailors expected something wrong, and the captain and officers stayed on deck and watched, wondering, and explaining-like to each other. But *we* knew it meant something unlucky-like, for all their talk. Well, sir, I don't know if I can explain clearly, but I'll try, for its all true about the sight I saw in that queer moonlight—a mile or so off from our ship it happened. Slowly, slowly up from the water rose the tapering masthead of another

vessel. Very slowly did she come out of the water, first her topmasts and topsail-yards, her sails set, then came her lower masts and rigging, and then the hull. I saw—we all saw—her ports, her guns, and the whole of her clear above water, even the men on deck. There they were, close enough and natural enough to look at, except that any one with eyes could see that it was no real ship, or sails, or men. Nothing of the sort. No, we all saw that it was a phantom ship, we never mistook it for anything else. One of the kind that never goes down, but has to sail and sail on and on for ever and ever, and those that meet her scarce ever reach their journey's end, or at any rate may be sure of black, rough weather and wreck and loss at the very best ending." I am not quite sure that old Jack would have believed the simple explanation of this marvel I have tried to give you. Ignorance and superstition are hard to convince that a thing may be wonderful, and yet quite possible and natural.

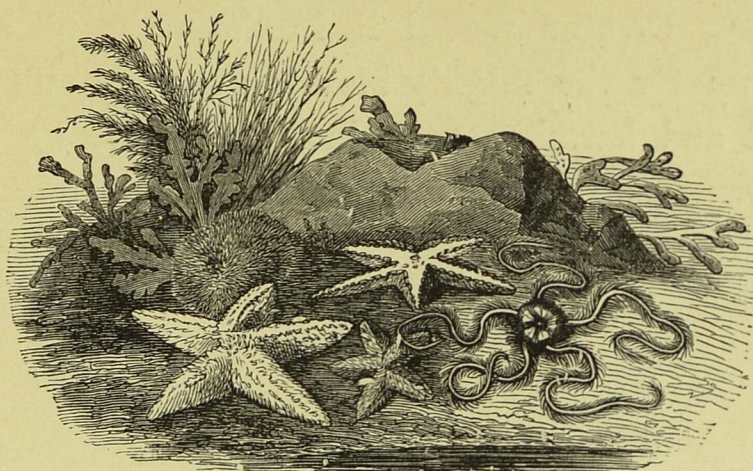




ICE-BOUND.

WHALES, SEALS, AND OTHER BIG ODD FOLK.

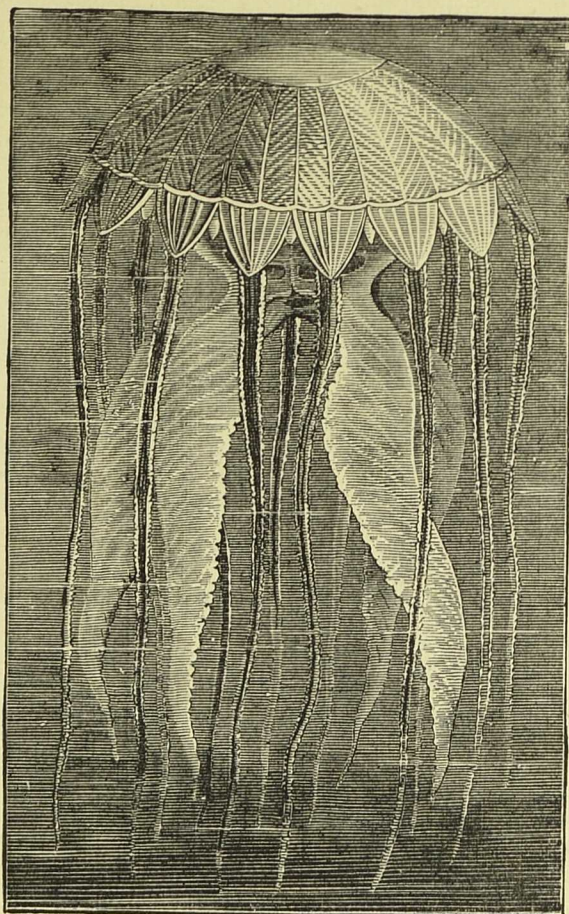
WHEN a ship is cruising about in the Arctic regions, a good look-out must be kept from the "crow's nest," a thing like an empty cask, with a ledge inside, which is secured to the top of the mast, to serve as a shelter for the watcher sweeping the horizon with his glass. It is reached by a wooden door, called a "Jacob's ladder," and entered by a trap in the floor, a cold, uncomfortable perch, but you can imagine how close a watch need be kept to avoid crushing up against the great floating icebergs which may be silently bearing down



STAR FISH.

on the passing ship. I may not pass these Northern regions, where the waters swarm with shell-fish, urchins, jelly and star fish, without showing you those kings of odd sea folks, the

Whale, the Walrus, and Seals, that flourish in such numbers. Of course, you boys know all about Whales—who has not read wonders about them, and seen pictures of one tossing up a boat in the air? So much has been written about Whales, that I need not spend much time with these—what shall I call them? For the Whale is not a fish, though it lives in the water; but then how could it live anywhere else? Its body is so heavy—weighing sometimes over two hundred tons—no legs could have supported it on land, and no wings could have carried it



JELLY FISH.

through the air. The Creator placed it in the only place where there was room for the mighty monster, that, in spite of his size, is timid and harmless enough. The Sword Fish pierces him, and Porpoises feed on him, yet he himself only



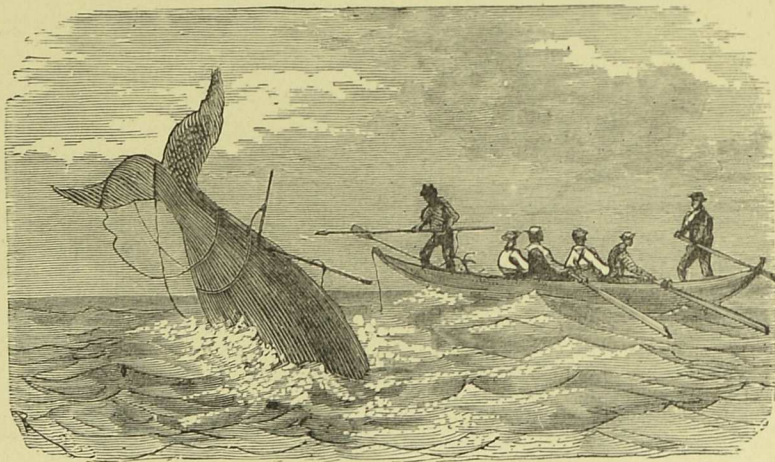
THE GREENLAND WHALE.

destroys the small marine animals floating in millions about the waves in which he lives.

Instead of the clumsy, slow timber vessels of olden times, smart, swift screw steamers, built for the purpose, start mostly from Dundee, for Baffin's Bay and Davis Straits, or Greenland, where these animals are found at home. These Whaling vessels generally start about May, and about October they will

be homeward bound, and signalling for a pilot. The ships they now pass will most likely "broom" them—that is, a man will go up in the rigging and wave a broom. This means, "What's your cargo?" and the answer is returned by the boatswain flourishing a downward sweep with a broom for every Whale on board. Then each gives friendly cheers and passes on, the returning whalers hurrying to reach that pleasant "home land," where fathers and mothers, wives and children are waiting so anxiously for their arrival.

The big, harmless, persecuted Whale is a good and tender parent. Should her little one be harpooned, she will dash to his aid, pressing close to his side,



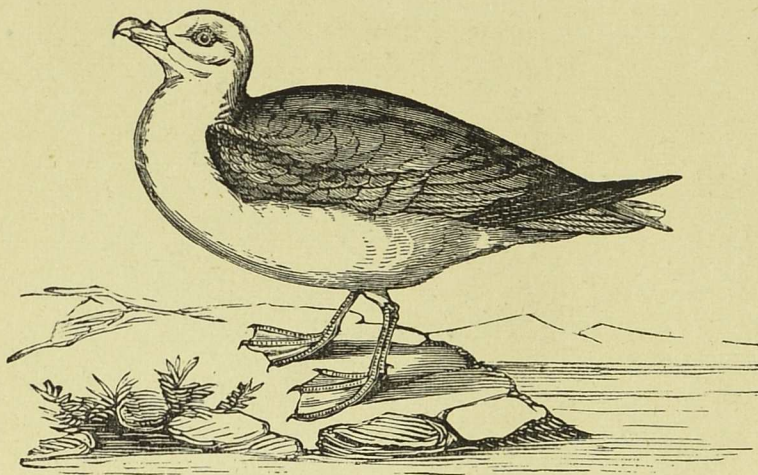
HARPOONING A WHALE.

and persuade him to fly. Then she will dive under, and try to bear him away on her back, while he, slipping and rolling, will try to cling to her with his two fins, and the poor mother, even though wounded, will often forget all about her own safety, and struggle long and frantically to save her little one. Then if it dies, or is taken, she will swim round about in an agony of grief and affection touching to witness.

Wherever Whale fishing is going on, the wild cry of the fulmar is heard. This is a large bird something like a gull, that usually joins the ship after passing the Shetlands, and

accompanies it through the trackless ocean, keeping an ever-anxious watch for whatever may be thrown overboard. It especially loves the fat of the Whale, and even though one bird may not be in sight when the Whale is captured, thousands of them come rushing from all sides to partake of the feast.

There are many Seal-like animals. See the huge Sea Elephant, at home on the shores and islands of the Atlantic Ocean. It has a queer long nose like the elephant, or rather



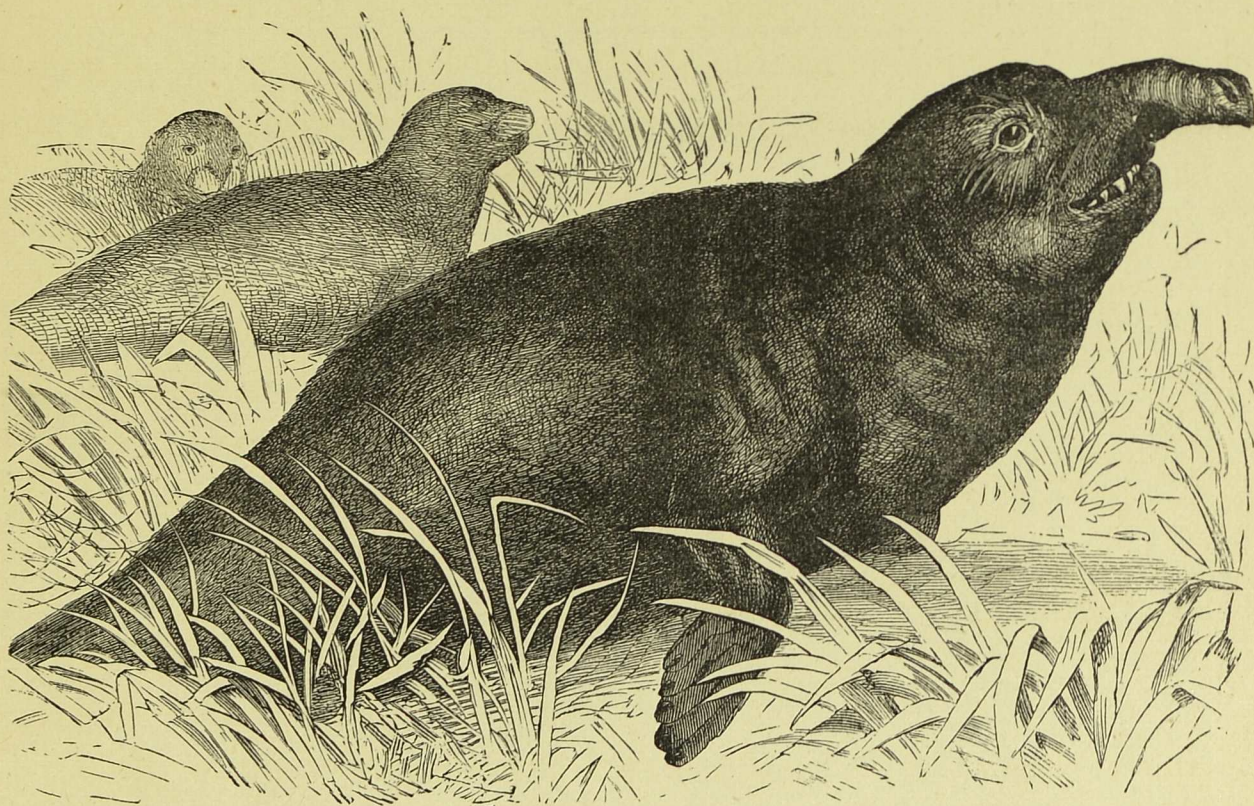
FULMAR.

like the tapir, and this nose it will shake, and show its sharp teeth at a man in rather a terrifying fashion, but if it finds that has no effect, and that he does not run, it hastily waddles off to the

water, though sometimes it is so fat that its sides quite throb with the effort.

Then there is the spotted Sea Leopard, the Harp Seal, the Dark Shaggy Sea Bear, and the Sea Lions, immense numbers of which are harpooned and captured by the Eskimo, who would be badly off without them, for Seals are their principal treasures; the fat gives them light and heat, the sinews are used instead of thread for sewing, the thick web of its flippers forms soles for their boots, and its bones are made into hooks, knives, and spear-points innumerable, while its skin has so

many uses I can scarcely count them. It covers their boats, their tents, and their sledges; it is cut into strips and made into harness, whips, and straps; and entirely furnishes them with warm, snug fur garments, which they so much need in that severe climate. Of course, a



ELEPHANT SEAL.

great many wonderful tales have been told about these useful creatures, which are usually found on fields of floating ice, called floes or packs. Thousands used to be met with on a single island, and hundreds on one ice-floe, but now they are getting scarcer every year.

In fine weather great numbers assemble on the ice-floes, bellowing like bulls. Generally their frolics end in sleep, but

a sentinel is left on the watch. If he hears a noise, he rushes off, and as they all lie huddled on each other and feel his motion they instantly wake up, and tumble head-foremost into the sea, where it is difficult to follow them.

In the neighbourhood we may see the Sea Horse. It is big,

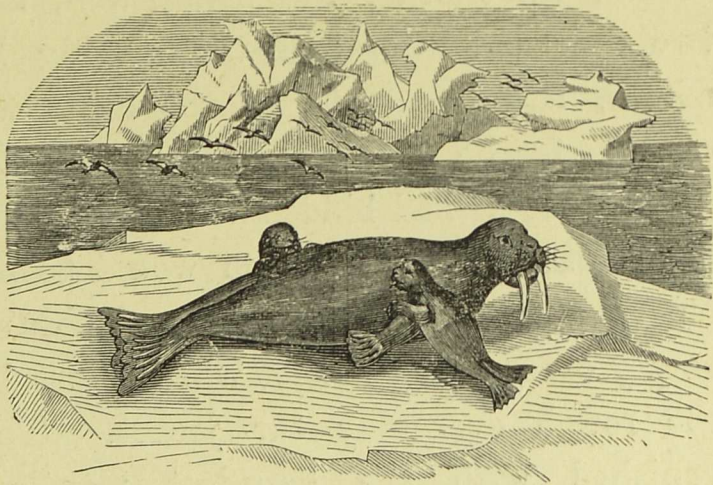


SEA LIONS AT HOME

and strong, and fierce, with great tusks which help it to climb over rocks or heaps of grass, to dig up mussels and sea-weed, or defeat the Polar Bear or Eskimo. The tusks are composed of dense white ivory, which is much used by our dentists.

All Icelanders know quite well that the many varieties of

Seals are King Pharaoh's people (Faraosh-dar) who were once drowned in the Red Sea, but who still, so their legend goes, form a human community at the bottom of the ocean, and are only allowed to visit its surface disguised in these soft brown skins, in which they appear to mortal eyes to be merely a strange uncouth sort of animal. Once a year only, on the Eve of St. John, they may come ashore, and casting aside these wraps, may frisk, and dance, and enjoy themselves in perfect freedom, like sailors after a long voyage. But if any one were at this time to find one of the cast-off skins and carry it away, the uncloaked one must follow, remaining a man or



THE WALRUS AND YOUNG.

woman until regaining possession of the lost mantle. This *must* be true, for "once upon a time," a young Ic-lander, wandering at midnight, happened upon a party of these odd revellers, and all unnoticed, contrived to carry off one of their cast-off furry wraps. He hastened away at great speed, but was followed and overtaken by a beautiful young girl, weeping bitterly, and imploring him to return her magic mantle. But the night was cold and dreary, and he led her into his mother's hut, and bid her stay awhile. Then he stole away and hid the seal-skin in a

trunk, which he carefully locked, for he felt he loved the maiden, and could not let her return to her ocean home; and as weeks and months passed away, the sea-found girl learned to love our handsome fisherman, and became his faithful wife. She served him well and tenderly, never even alluding to those old days, or the seal-like mantle of which he had deprived her on the Eve of St. John.

Three Christmases had come and gone, and on the fourth, the mother not being well, her husband called his two dear children, and with loving kisses and affectionate adieus, left her alone in the cabin while he took them to church, for he was a good and devout man. Little did he dream that he had bidden his dear one a last farewell, or that from that day his children would be motherless. Yet, alas! on their return, the house and old chest were open, and empty except for the key, which must have been forgotten in the rough every-day fur jacket. The sea-won wife had vanished with the long-lost mantle hidden therein, no doubt unable to resist the mystic attraction that drew her back to the blue waters.

Yet true hearts' love is strong; and many a time when those strangely motherless children wandered by the rocky shore a beautiful Seal with tender, wistful eyes would approach uttering low cries to attract their attention, and sometimes leaping on the sands as far as their little feet, bringing gifts of quaint shells or strange weeds from the ocean depth, as toys and tokens of a never-fading love.

This tradition reminds one of the old German fancy of a water-sprite, the Lurline of the Rhine, a fair blue-eyed siren,

celebrated in song and story, that by the sweet melody of her voice lured men to a watery grave, warbling softly—

“Here on this Elysian shore
I will sing such songs to thee,
That thou never, never more,
Wilt know want or misery.”

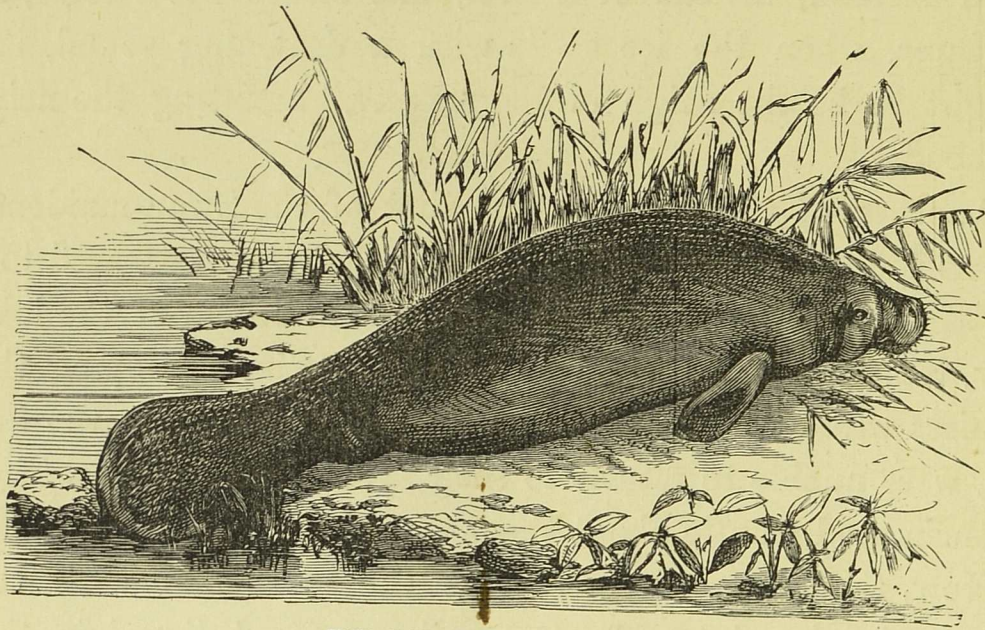
In Iceland, instead of a Seal, this creature is a horse, and in winter, when the ice splits with a deafening sound, it is thought to be the neigh of the “nykv,” haunting the neighbourhood.

Another of these myths was that of the Swan-maidens—girls so hidden in pure white feathers that they appeared to be beautiful white swans floating on the calm bosom of the lakes. They, too, had an awkward habit of sometimes slipping their disguises while they frolicked on the beach, and, like the Seal-girls, were unable to return to their favourite element without the enchanted mantle about them.

How, then, can we marvel at the mermaids, with their combs and flying tresses? Our sailors once believed in them most firmly, dreaming that they held their courts in coral groves and weed-decked grottoes, only revealing themselves now and then to some favoured mortal. About the Welsh coast you will still be warned to seek shelter when the mermaids drive their flocks too roughly ashore. It is believed that the foaming white waves are sheep, each ninth one a ram that heads the flock. All pretty myths, you will say, when I show the portrait of a real sea-maiden, or rather of a Manatee, or sea-cow, whose strangely human appearance, and soft, pitiful cry when half out of the water, has given rise to

many wonderful fancies of mermaids, tritons, and sea-nymphs, so general in ancient story. Let us see what a matter-of-fact traveller says about a chase after these animals:—

“Not long after dawn, their favourite feeding-time, I was ready to join the hunting excursion, and found two large pit-pans—canoes hollowed from the trunks of trees, and able to



THE MANATEE OR SEA COW.

hold five men each. We paddled up the river for several hours until we reached a number of low islands, covered with tall grass and shrubs, which we cut down and flung lightly into the canoes to make them look like floating trees. Then we drifted slowly with the current, one man steering; another, with harpoon and line, crouched at the bow; while all the rest, holding long, sharp lances, knelt motionless and silent at the bottom.

“For a long time the canoes drifted on, until I became

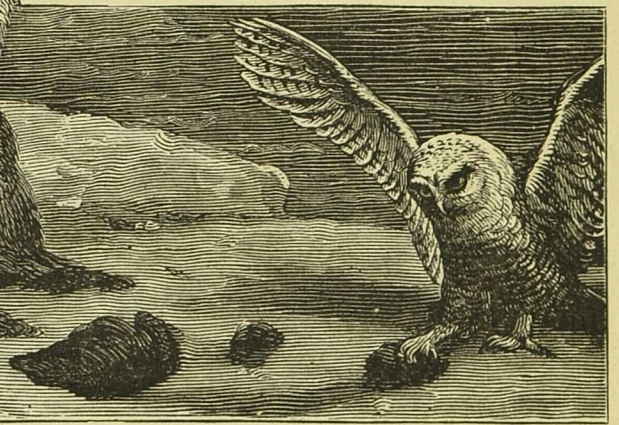
impatient that the hunters made no sign, and I began to fear that our expedition would be a failure; but all in a moment, when I least expected it, the man in the bow launched his harpoon. Then a heavy plunge, and in an instant the boat swung round its head to the stream, and before I could comprehend what was going on the big green boughs were flung overboard, and the men stood up with their long lances poised for instant use.

“I soon saw we had run out a large part of the slack of the harpoon line, which held fast to some unseen and immovable object, and the bowsman began to gather it in, dragging up the boat slowly against the current. Suddenly the Manatee (for it was one) left its hold near the bottom, and started across the river, trailing us rapidly after it, which brought it nearer to the surface. Down darted more lances, and the other canoe came to our assistance, sending another harpoon, which reached the creature running, or rather swimming off with us, and made it so nearly helpless that the Indians allowed the canoes to drift with it down the river. Sometimes the poor captive dashed and dived; but before we reached the village, where all the population had turned out to receive us, it was dead. There was great shouting and loud excitement, the capture of a Manatee being evidently regarded as a feat to be proud of. Ropes were speedily fastened to its body, which was dragged triumphantly along by the Indians, and the meat was soon roasting. I am sure its hide was an inch thick, and tough as whalebone.”

Strange adventures sometimes happen to the men engaged in whaling or sealing expeditions.



Once a ship was moored to an iceberg off the coast of Greenland. The sailors saw a big Polar Bear standing on the ice, watching intently for Seals. Now these white Bears do not usually attack men unless they are nearly famishing, yet if interfered with they are dangerous customers. So said the experienced sailors as they tried to dissuade one foolhardy fellow from attacking the watcher. No reason would he listen to, but drinking a glass of rum, to give him extra courage, and catching up a harpoon, away he started, and after a fast trot over the frozen snow, he suddenly found himself face



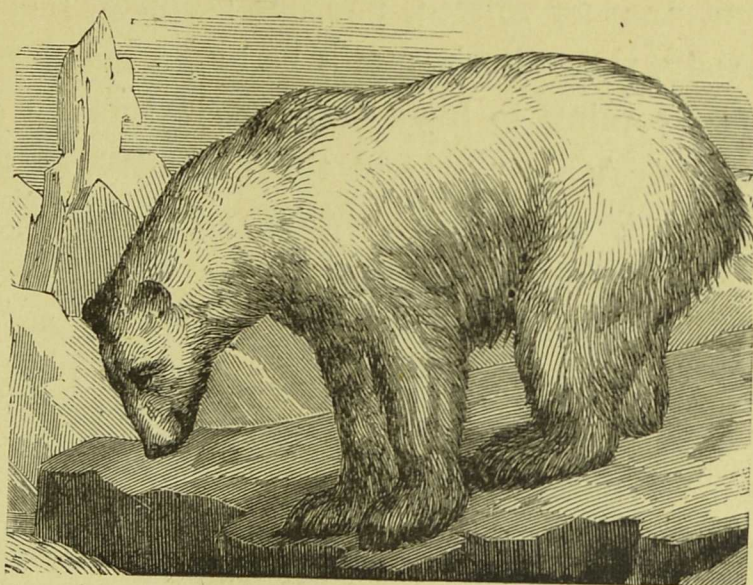
to face with Bruin, on the look-out for a dinner.

But by this time his courage had cooled, and when he found the big white-coated Bear showed its huge black mouth and strong teeth in a fierce growl, or

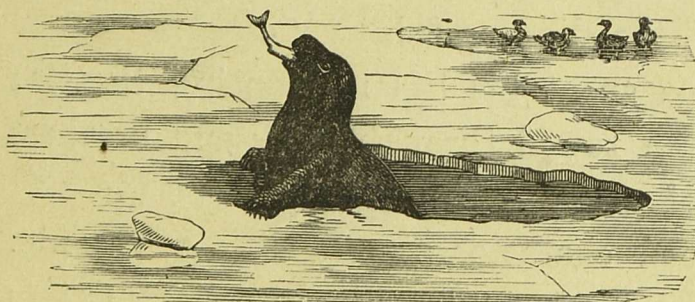
rather in a kind of hoarse bark, as he advanced to meet the visitor, the gentleman thought it better to beat a retreat. Off he rushed, with the Bear after him, and the beast being most accustomed and at home on the rough ice, there seemed but a slight chance of escape for poor Jack.

However, to run the better, he flung away his one weapon, the harpoon. This the inquisitive bear must stop to examine and bite; and these bears *can* bite, for the jaw is stronger than that of other bears. On flew the breathless man, to whom every instant was precious; but the Bear was soon on his track

again. Jack tore off one of his big rough wool mittens, and curious Bruin had to stop and see what that was. Then the chase recommenced. Another



THE POLAR BEAR.



A FISH DINNER.

run, another mitten, another stoppage; another race. Fortunately, the sailor's mates had seen his peril, and by this time were coming to his assistance, just as his cap was being flung away. A shot settled the difficulty, as the Bear not caring for such a warm reception, returned growling to his Seals, teaching Jack, by example, that discretion is the better part of valour.

After telling so much about Seals, I think I may venture to



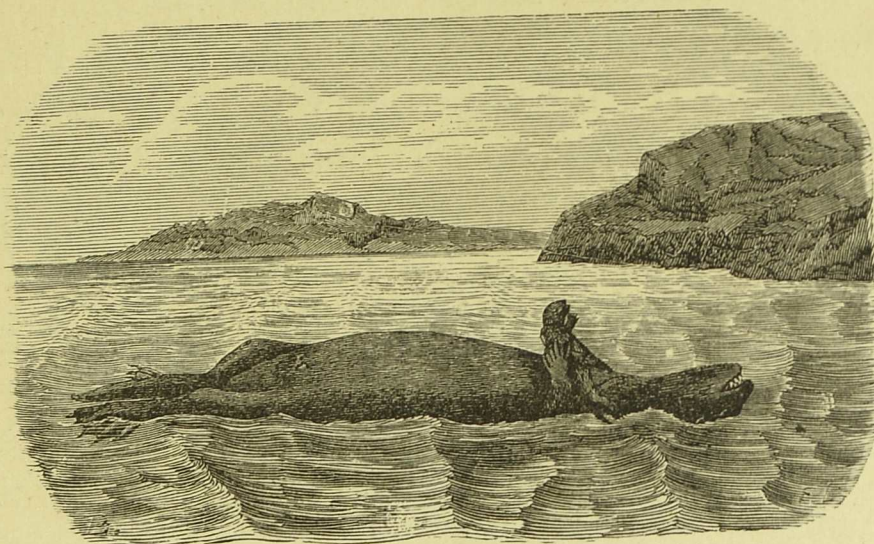
THE SEA OTTER.

place the Sea Otter among my Odd Folks. Like the Sea Lions, these animals have heads not unlike a cat's, and a thick, muscular tail; but instead of flippers, they have strong fore paws, which can grasp and hold the slippery fish they catch.

An old man, who has spent his life in hunting the Sea Otter, tells us he has often rowed through surfs and breakers all day for the chance of a single skin.

He gives them a good character as affectionate parents. Listen to his yarn on the subject:—"I really do believe Otters

have human sense. I've seen them dive down and catch a crab, then coming up to the surface, and fastening on to a bunch of kelp, take the crab in their paws and eat it quite leisurely, giving all the best bits to their pretty pup. Then, after dinner, they will play with the young one, teaching it a lesson in swimming, by catching it suddenly, throwing it to a distance, and diving out of sight. Up comes master pup, squeeling loudly, and then most likely the mother dives off, leaving it in



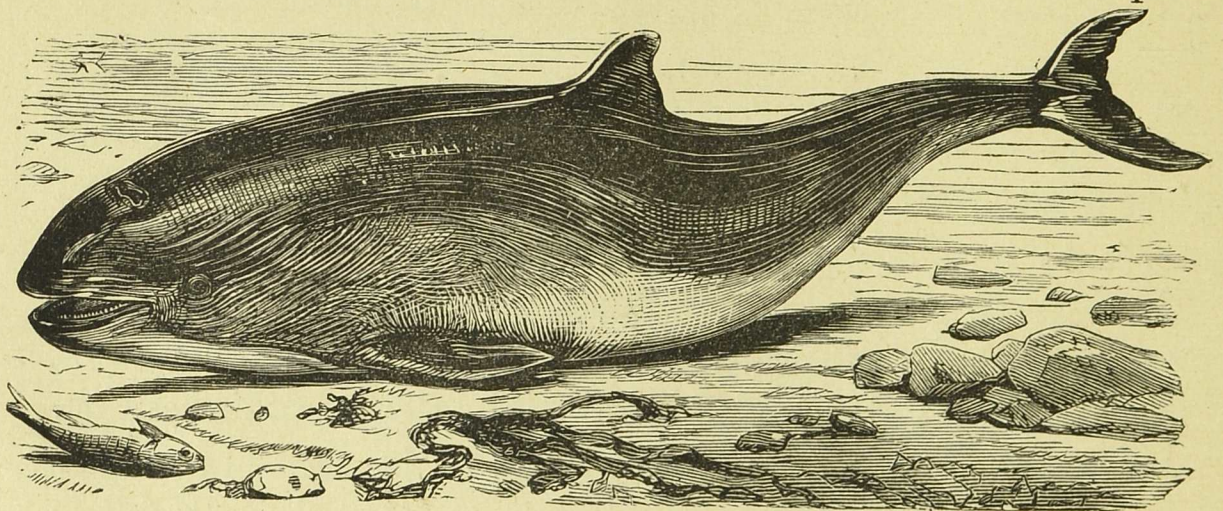
SEA OTTER SWIMMING ON HER BACK, WITH HER BABY IN HER ARMS.

a state of noisy distress. Then up she comes, dodges in and out the great tangles of kelp, and has a regular game before she lets the little fellow catch her and nestle close, as a kitten does to its mother, to be cuddled and fed and played with. When they go to sea, they take the pups on their breast, and swim floating on their backs, keeping the pretty little fellows' heads well out of water. Sometimes she sleeps in this position, holding the young one with her paws. I have killed a mother sometimes with her young one in her arms, but the little fellow

would swim after the boat and cry so pitifully, that I hated myself for the cruel work I had to do for a living."

The velvety brown Otter fur is very expensive. Chinese mandarins, Russian nobles, and English ladies all like to wear it—it is so pretty and warm—so no wonder that the poor little Sea Otter is getting scarce on the shores of the North Pacific, where it should be at home in such numbers.

What is this large brown creature lying on the beach? It seems to be of the same kind as those dark objects flopping up and down in the waters. It is one of a shoal of Porpoises—*porco pesce*, the Italians call them, which means hog-fish—I suppose because they are such gluttons, and will eat anything—a kind of poor relation to the lordly dolphin. They too swim about in large companies, in hot pursuit of mackerel, herrings, and other small fry, which they follow greedily, sometimes right into the fishermen's net. At other times they approach the shore, and root up the weeds with their noses, nearly like land hogs might do; they have a great many teeth, and, once caught, their prey have small chance of escape.



PORPOISE.

Shall I repeat the story of the jealous brothers? a wild tradition which the Canadian Indians tell concerning the origin of the idle Porpoises, which they sometimes see basking in the shadows of the great rocks.

“Many moons since, a widow and her four sons dwelt in the wigwam of the departed brave. The eldest son was a great ‘pow-wow man’ (sorcerer or magician), and his brothers, knowing this, were jealous, and hated and dreaded him, though he always gave them a share in the deer he killed, or the fish he caught in such abundance. He was a kind brother, yet they loved him not; but sought to do him evil. So he determined to send them away, and to live in peace.

“One day, as he hastily passed the wigwam, he told them there was a very large Seal on the beach, which they were not to touch; but they seized spears and lance, and hurried joyfully to attack the monstrous creature, which was really basking there. All three struck their spears into it at once, but all three gave a yell of horror on finding that they could neither withdraw the weapon, nor unclasp their hands, struggle how they would. and the huge Seal, being bewitched by the elder brother, swam away to sea, dragging its three captives after it, and travelled for many a mile, until it landed them on a desolate shore. Then for the first time their hands were loosened from the spears, and the Seal sped away unhurt.

“It was a strange, wild spot, and the brothers, hidden in the bushes, waited to see what the inhabitants were like. Presently, a tiny canoe appeared, paddled by a strange little man, who evidently not seeing them, anchored his birch bark close by, and springing into the water, began diving, at each

dip bringing up a large fish, which he flung gaily into the boat. The brothers were faint with hunger, and one of them proposed to steal a fish the next time the busy diver was out of sight, in the blue waters. This he did most cleverly; but when the little man came up once more, he again counted his fish, and missing one, appeared most angry and annoyed.

"Once more his canoe floated, and he stood with outstretched hands, passing slowly along the shore, till he came opposite the bushes where the three were crouching; then he paddled to the shore, and came straight up to them. At first they laughed him to scorn; but he was stronger than they and he seized them one after another, tied their hands and feet together, and flung them helpless into his canoe.

"Then he paddled away to a land where wigwams, men, and animals were all on the same tiny scale as himself, and the brothers, bound as they were, were flung into a lodge, while a council met to decide the fate of the three prisoners.

"But now a marvel happened; for while the council were deliberating, a great flight of strange birds appeared overhead, and commenced a wild attack on the people. These birds had not feathers, but large sharp porcupine quills all over them; and they flung these as darts among the warriors, until the ground was strewn with the bodies of the brave, and men, women, and children, lay scattered and dead.

"When all were stiff and still, the birds flew away, and the three astonished brothers, who, while witnessing with loud shouts of triumph the strange sight, had struggled out of their bonds, ran to the scene of carnage, and began pulling those sharp quills out of the apparently dead bodies of their

enemies ; upon which the said bodies soon appeared to recover life and sense, stood up, and thanking their late prisoners, offering to grant them any reward in their power. 'Send us home ; let us return to Nasqually, to the wigwam of our fathers,' cried the three eagerly, for their pride was gone. So the little man called a Whale, a Soch-a-li-ti-ya, or Great Spirit of the waters, and commissioned it to take them whither they would go. And the brothers took their places on its back, and it sped away over the sea.

"But the Whale did not care for so long a journey, and he suddenly thought he would turn them into Porpoises and let them swim the rest of the way by themselves, and being a great magic or 'medicine' Whale, and able to carry out this fine idea, it tumbled them all off into the sea, and as they fell splashing, they turned into great awkward kinds of creatures, the like of which had never been seen in these waters. And as the brother to whom they had been unkind willed that they should trouble him no more, they have remained Porpoises ever since that day, vainly struggling and trying to leap out of the waves on to land, and ever at war with the Seals, for they cannot forget that it was a Seal that carried them off from their home by the Nasqually Rock."

A strange, wild tale, you think ; yet perhaps, as the swarthy little Indian children listen to it, they learn a lesson of kindness and toleration from the fate of the jealous brothers.

COD-FISH AND SHARKS.

THE Cod-fisheries of Newfoundland are more profitable even than the seal-catching all about its shores and bays, where the busy fishers "till the farm that pays no fee." The stakes and platforms for drying this fish are to be seen in every hamlet, and just as elsewhere the peasantry go to sell their fresh vegetables, here we see them flocking to market, driving little pony-carts laden with salted Cod-fish. Perhaps they are bound for St. John's, a queer little old-fashioned town, whose harbour in summer-time is crowded with fishing-vessels of all nations.



Its streets are at all times crowded with dogs, mostly of a mournful, howling kind, that trot about with a wooden log round the neck, to keep them from thieving if possible, for they are sad rogues—not the brave Newfoundland we all know so well. He would neither steal nor bite like these, his poor half-mongrel brothers.

I daresay you have made a little fuss some time or other at the sight and smell of one spoonful of Cod-liver oil. Think of the many spoons filled from the thousands of tons collected from the hundreds of thousands

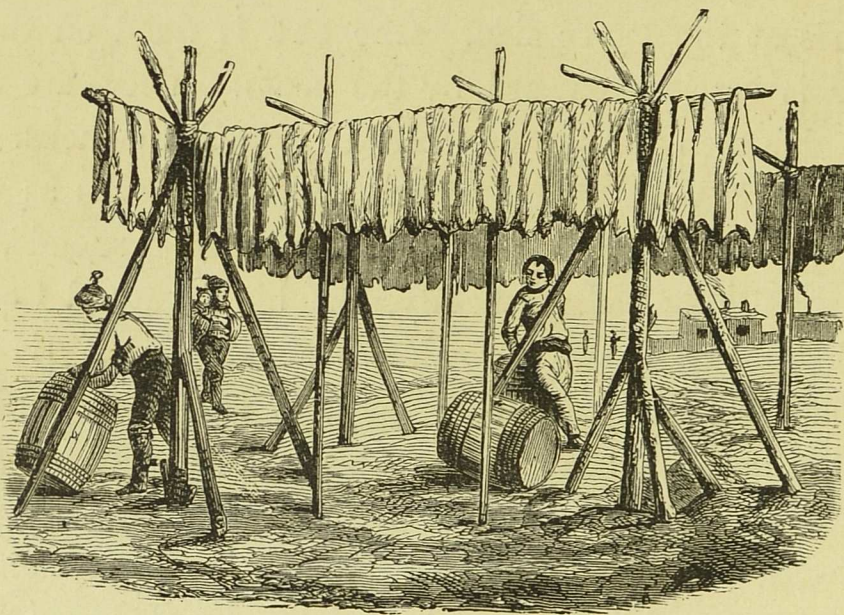
of Cods' livers taken from the fish that crowd yon great submarine mountain—the Bank—at the east of Newfoundland.

The great Cod-fish family is at home in the cold northern regions, but every year travels about in pursuit of shoals of herrings, capelins, and other prey.

The net used for the reception of the sturdy Cod-fish needs to be a strong one, with cork buoys on the upper edge and leaden ones at the lower side. One end is fixed on the cast, the other is carried seaward by the boats. There are usually ten or twelve men and boys on board these Cod smacks. Each man has a line with which he can catch haddocks as well as Cod. Attached to each line are a hundred "snoods," with hooks all ready baited. Luckily, the big-mouthed Cod is so greedy that he will swallow almost anything that is offered him. Each line, fifty fathoms long, is laid clear and ready in a basket as the boat shoots ahead. Once at the fishing-ground, the fishermen heave overboard a cork buoy with a tall flagstaff attached to it. This is kept stationary by a line or "pow-end," which is held down by stone or grapnel. To this pow-end is fastened the fishing-line, which is then paid out as fast as the boat sails. When the line is all out, the end is dropped, the boat returns to the buoy, and the pow-line is hauled up, with the anchor and fishing-line attached. Then up comes the line with its catches, and when the fish is received from the boats, it is taken to a shed called the *chauffant*, where it is split open, washed, and laid between layers of salt, then dried and laid out singly on the beach till quite white with "bloom" and fit for market. The liver is placed apart to be prepared for oil, which is pressed out in tanks and falls into

a huge cauldron, from whence it is drawn in casks. The first oil which is strained from them is the best kind, the next is darker and not so valuable.

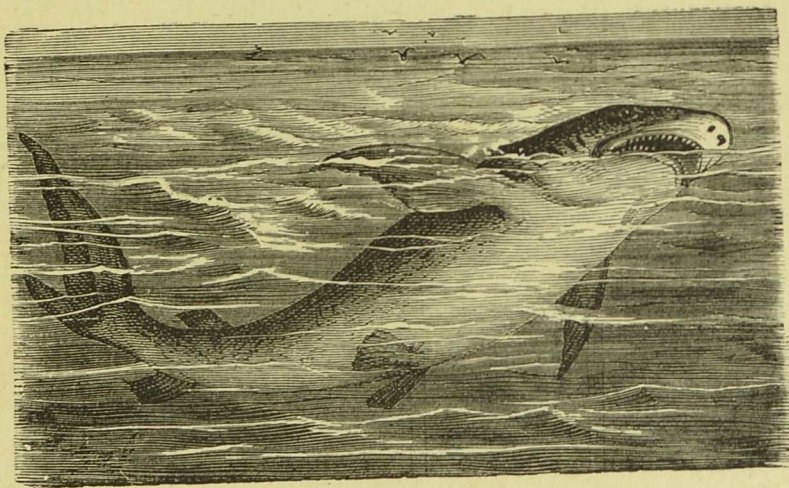
Of all sea folks that have bad characters, the Shark has by far the worst. Gluttonous and ever ready to snap at all or anything that comes in its way, it voraciously pursues every



SALTING COD-FISH IN NEWFOUNDLAND.

Cod, flounder, or cuttle that may approach its huge maw, or swallows without mercy any poor victim of shipwreck, or body that may have fallen or been flung overboard. It will follow a ship for days where its instinct tells it that food is to be found. It has been known even to leap into a boat and seize the fishermen, or to fling itself on to a ship to snap up some solitary sailor. No wonder that it is called the Sea Fox. A natural enough thing to dread and slay such a dangerous creature, but a very strange fancy to worship it, is it not? Yet travellers

tell us that the natives of some of the African coasts call it their "Jou-jou," and consider its stomach the true road to heaven. Superstitious ignorance, truly, will believe anything. Three or four times a year they keep the lesser festivals of the Shark, and on those days the tribes row all their canoes out into the river, where with many a mystic rite they invoke the protection of the great sea "Jou-jou," offering poultry and goats to satisfy his sacred appetite, and begging him to spare their lives. But on the great annual festival it is worse, for then it is a little child's life his Sharkship is supposed to require. And one



THE MAN-EATER SHARK.

poor child is, with many ceremonies, borne to a pool at low water and left there until the waves bring the hungry Sharks, and they soon leave nothing to tell the tale of horror.

The most dreaded of all the members of this family of ocean tigers, as I may call them, is the Great White Shark or Lamia. The sailors know him better as the "man-eater." He is more especially at home among the coral reefs of the Pacific, where he is the dread of the islanders—and no wonder, for he annually gobbles up numbers of them, men, women, and children. The boldest sometimes manage to take him prisoner in this cunning manner: they get a large log of some light wood, and carve

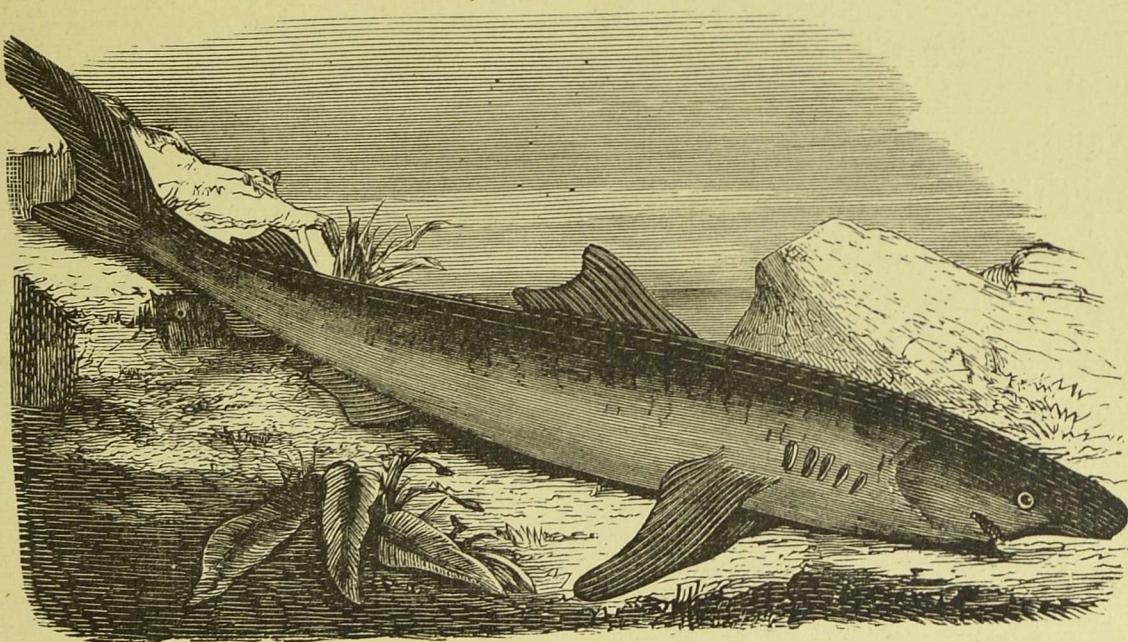
it into the rough semblance of a canoe, then let it float away in the neighbourhood of the Shark. There is a strong rope attached to this, one end of which, formed into a running noose, dangles in the water below. It often happens that Mr. Lamia, being of an inquiring mind, comes poking about this rope. Should he chance to slip his head and fin into the loose noose, it is instantly tightened by the Shark's frantic plunges; but his struggles only serve to toss about the log above him, and to give the signal to the Indians, watchfully waiting in their canoes, that they may hurry forward with their heavy war-clubs and spears, which, shouting and yelling, they ply about the wretched man-eater, till it turns up its white and shining body, and is towed in to furnish a feast for its exultant sable captors, who consider the rough, tasteless flesh a dainty reward for all their trouble.

Now let us turn to the mighty Greenland Shark, the sworn foe of the adventurous whaler, of whom he knows no fear; at least, not enough to keep him from making his appearance, and snapping up great morsels of blubber as soon as the seamen have secured their whale, and begun to cut it up. What though they make dives at him with their knives, he only retreats while the smart lasts, to come rushing hungrily up again at the first opportunity, poking his great ugly snout wherever it is least wanted, and there is most to eat. Yet this big sea pirate has one enemy he dreads—a little creature not three inches long, that fastens on his eyes, and often blinds him.

Then there is the Fox Shark, or Thresher, which has the funny habit of springing out of the water, and inflicting a violent blow of the tail on any enemy. He will attack the whale,

and fairly flog him with tremendous blows of his forty-foot body, whose slaps sound like those of a heavy flail.

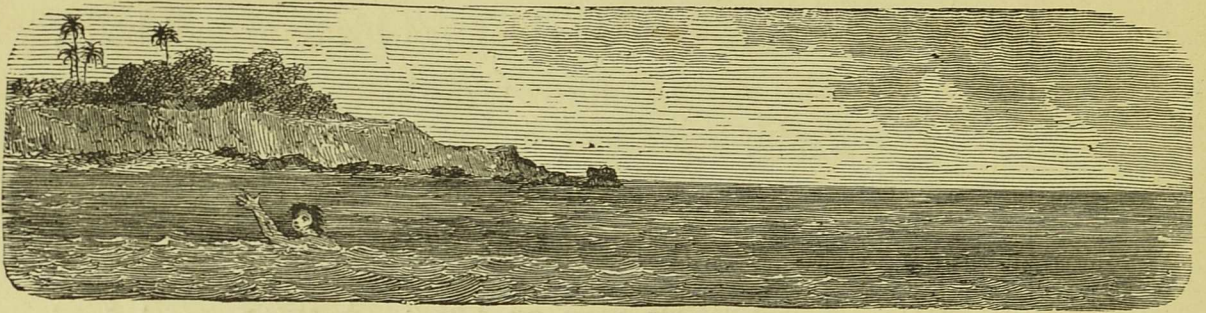
We must also avoid, if we be fishermen especially, the Blue Shark, for he will steal our fish, following them even into the net, biting, struggling, rending its meshes, and winding himself up in them until they are ruined and in rags. I have been told



STRANDED.

that Mrs. Blue Shark keeps a handy nursery for her babies. When they get into any sort of trouble, she just opens her big mouth and lets them swim down her huge throat, till the danger is past.

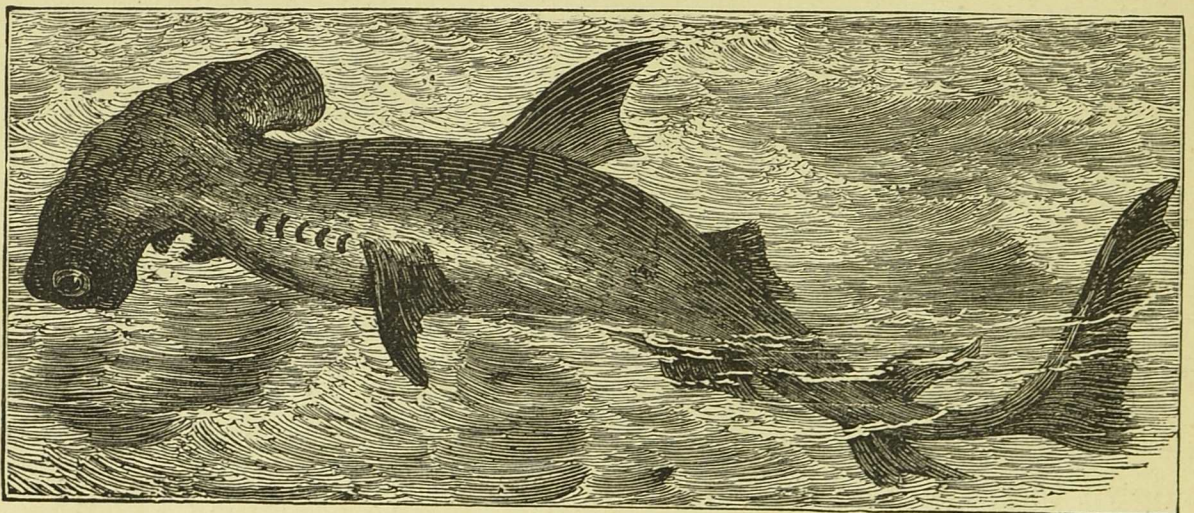
Next comes the Hammer-headed or Balance Fish, its head like a hammer, with an eye at each end, at home in the Mediterranean. Heart and Broad-headed Sharks, and others, down to the Skate-toothed Shark, with his flat, strong grinders that can scrunch up an oyster in a fashion that would astonish



SWIMMING FOR DEAR LIFE.

you. And the Basking Shark, so called from his love of basking in the sunshine, half-asleep on the surface of the waters. Not, mind, that he forgets to be ready to snap up anything that may come near; but as he feeds on sea plants, we may excuse this idle fellow.

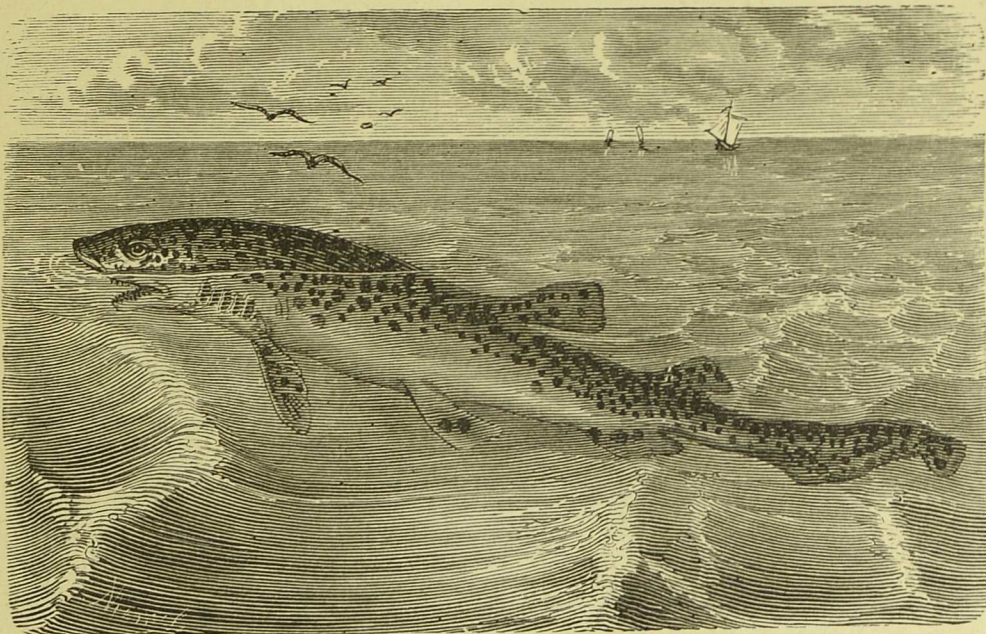
One last kind I must not forget to introduce, and that is the Spotted Dog-fish, the more especially as he often comes on a visit to our shores, in pursuit of fish, no doubt. I think we have already noticed a kind of soft horny square bag, with long curling threads at the corners, which is often seen on the beach. The fishers call them "mermaids' purses," but they



HAMMER-HEADED SHARK.

are really the empty eggs of these Dog-fish Sharks, which by means of the threads are entangled and held among the seaweed until the young are safely hatched, when they come pushing through from a little opening near the head, and swimming away right merrily.

Shall I tell you how a Shark was once caught? "It was



THE DOG-FISH SHARK.

a hot day, and I was strolling on deck, when suddenly one of the officers called me, and pointed out a dark, razor-like fin cutting its slow but steady way through the blue waters that circled our ship.

" 'What's that?' I asked, wonderingly.

" 'Don't you know a sea-lawyer yet, sir?'

" 'Sea-lawyer! Oh, you mean a Shark; is that one?'

" 'Yes. I have given him his true salt-water name. That fellow is eighteen feet long at least. See how closely he

sticks to us. He swims lazily enough now, certainly, but let a sailor fall overboard, and the poor fellow would lose the number of his mess before you could say "Jack Robinson."

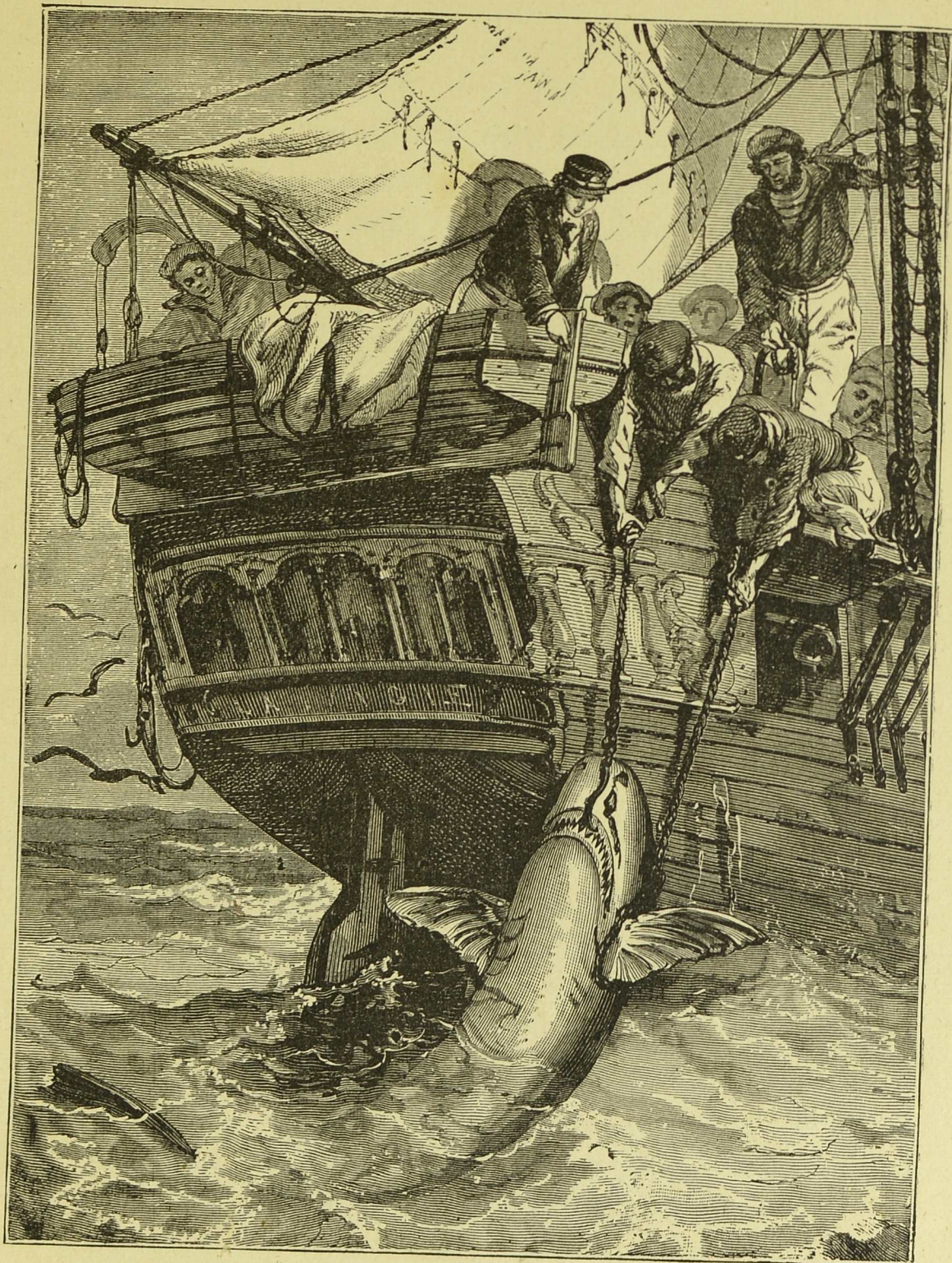
"You may be sure I did not lose sight of the razor-like fin, as it went gliding up and down for an hour or two afterwards; and it was strange to see how the sight of it quite enraged our men, old hands, who had seen service in India and Africa, and who, generally speaking, had good reasons for hating the 'man-eater' and his cruel race.

"At length the old grizzled quartermaster hitched up his tarry trousers, and coming to the lieutenant, asked him if there would be any objection to the men hooking up that rascal coursing astern; adding something about a brother of his own that had been gobbled up 'by one of these pirates.'

"Permission being given, there was a rush on deck, as you may fancy, boys, and plans for the great sea-lawyer's speedy capture were quickly laid, the destined victim watching the proceedings with evident interest and attention, but evidently quite unconscious that they were in any way concerned with his ugly self.

"The first thing the men did was to fasten a great hunch of pork to a huge Shark-hook fastened at the end of a long and strong chain, which was rigged to a rope, made tight, and taut, and safe. Then the joint was lowered into the blue waters, with plenty of line, and we all waited, watching as patiently as we could for the result.

"It was not long coming, for the white, shining joint of pork within reach of his nose was more than Mr. Shark



HAULING UP THE SHARK.

could afford to have doubts about, so with a rush and a splash he turned round on his back, opened his big maw and swallowed the bait, along with the chain and hook that held it, then slowly turned up again, making the rope crack, and swam off, as though he had quite enjoyed the tit-bit, and did not mind its few awkward accessories at all. But stop! the line tightening, the sharp hook inside him grew awkward, and the great Lamia was soon struggling and fighting, and trying to bite in half the chain that held him, but all to no purpose, for strong willing hands were hauling him in. Once he threw himself clear out of the water, lashing it into a white foam with the powerful strokes of his strong tail; but all this only exhausted him, and up he had to come, mid our shouts of welcome, for by this time a huge bowline had been slipped over his fins; and soon he was lifted up head and tail, and brought, with no gentle bump, on to the deck, where he lay powerless, yet snapping and plunging like a mad dog, his great tail wagging wildly, and striking all within its reach, so that no one cared to venture near. One sailor foolishly threatened it with an oaken handstaff, but the prisoner caught it out of his hands, and bit and crushed it with his strong, cruel teeth, which would fain have snapped the sailor himself in half. Even when our cook had, with much difficulty, succeeded in cutting off the fierce head, it still snapped and bit at what was put between the teeth.

“Then we saw what a cruel maw it was to fall into—lips like leather, and in each jaw six rows of teeth, strong and white—teeth that take different motions, at the creature’s will.

It can erect the whole of them, or even only a portion of one row, with which to rend and tear its victim. Fortunately he must turn over before he can reach him, so that gives them sometimes a chance of escape."



SHARK ATTACKING A BOATMAN IN THE SEA OF JAPAN.

SEA SHELLS.

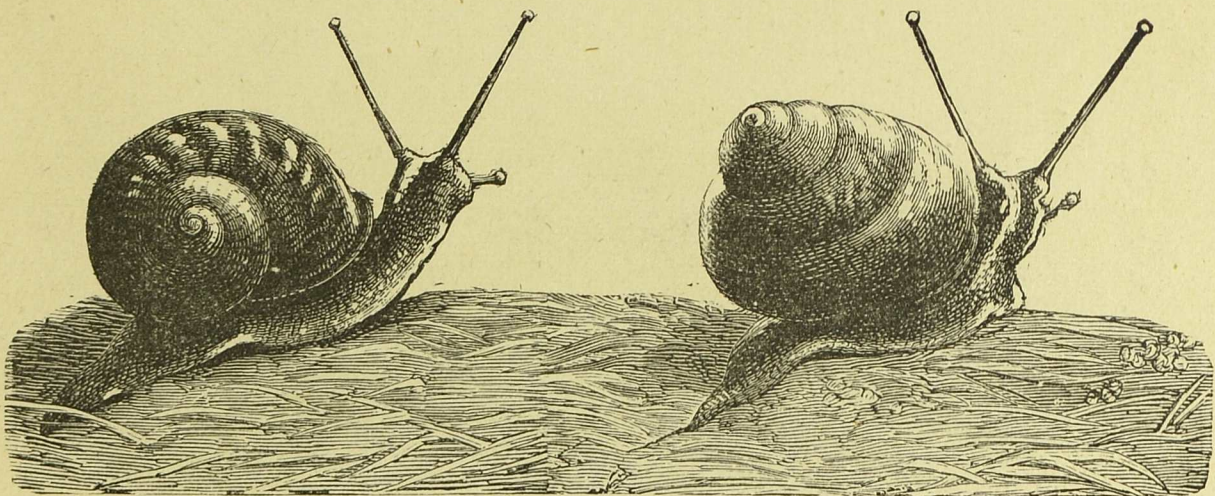
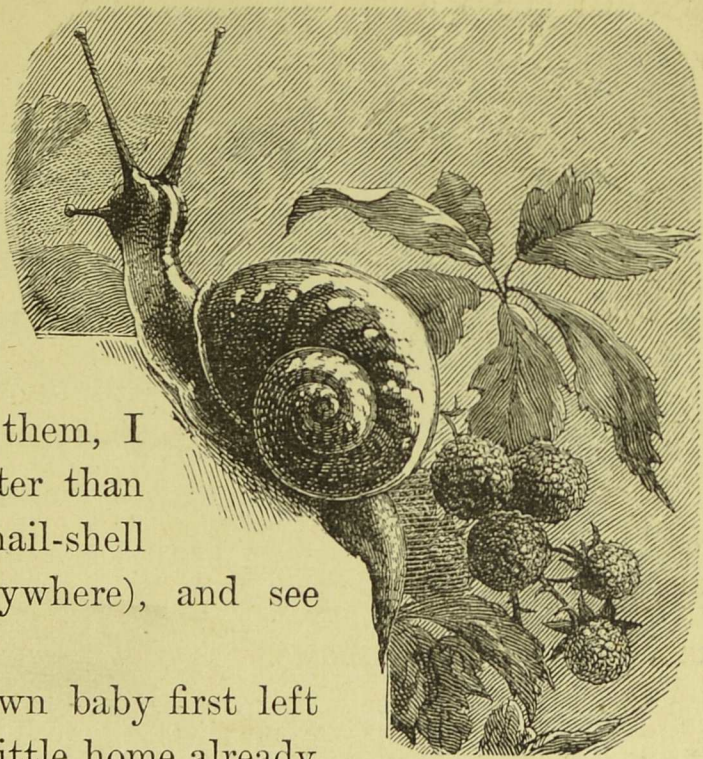
“Hast thou heard of a shell on the margin
of ocean,
Whose pearly recesses the echoes still
keep
Of the music it caught when, with tremu-
lous motion,
It joined in the concert poured forth by
the deep?

“And fables have told us, when far inland
carried,
To the waste sandy desert and dark
wild cave,
In its musical chambers some murmurs
have tarried,
It learnt long before of the wind and the
wave.”

"Frail, but a work divine
Made so delicately well
With spine and whorl,
How exquisitely minute
A miracle of design."

As I want to show
you some pretty shells,
and help you to under-
stand a little about them, I
think I cannot do better than
pick up a common snail-shell
(we can find that anywhere), and see
what its story is.

When the soft brown baby first left
his egg, he found this little home already
fast on his back—such a tiny light mite
of a thing, not much bigger than a pin's head, with only
these two whorls, or curlies, you youngsters would call them,
in it; though later on, when he was a full-grown snail,

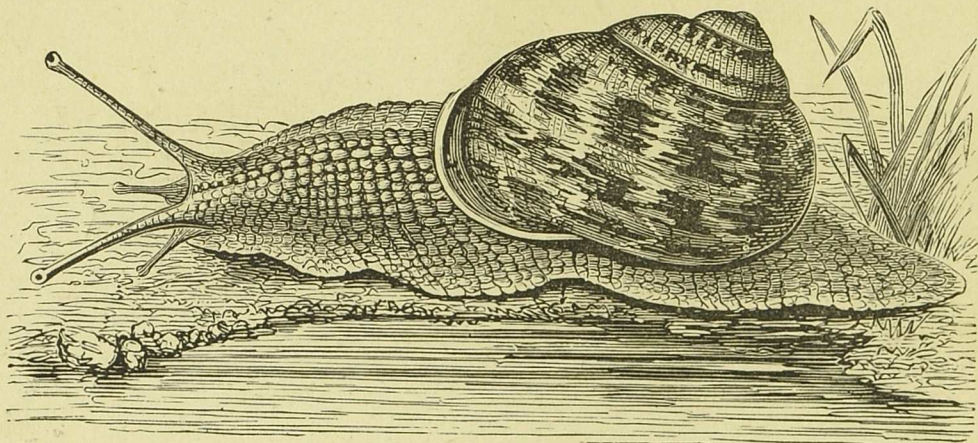
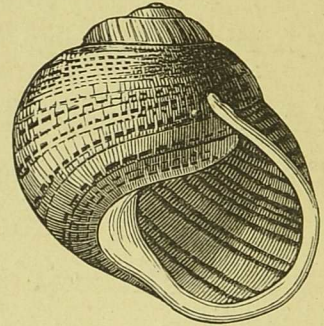
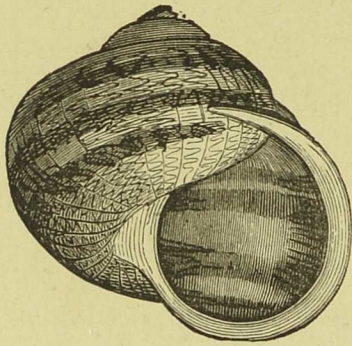


and his house a full-grown house, there were five of these whorls—quite as many as any respectable snail needs to make his way in the world—or our garden, which to him means the same thing.

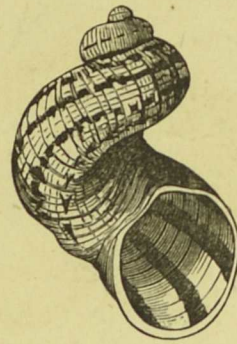
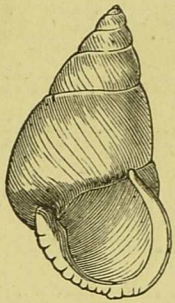
He is a skilful builder, for often, when some heedless foot has crushed his home, he will set to work and mend it all again, which is a great deal more than you or I could do for him, though we can so easily cause the damage.

“An inadvertent step may crush the snail
That crawls at evening in the public path.”

How pretty some of these houses of the *Helix* or Spiral family are, especially those that are at home in foreign parts, where they rival birds and flowers in colour. But you ask how does the snail mend his broken shell? Look

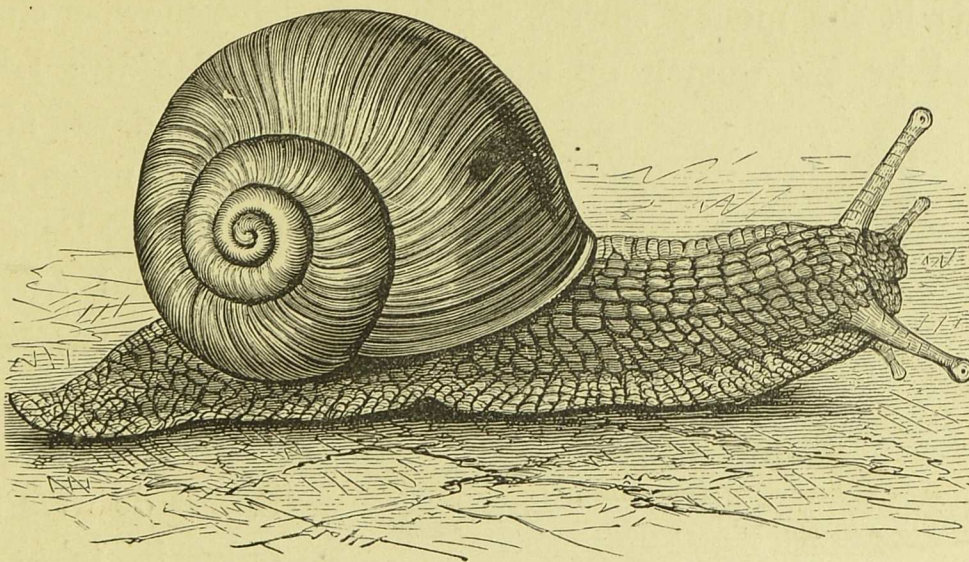


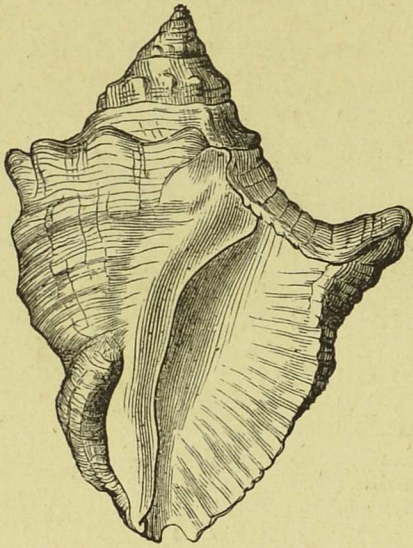
at the soft, helpless body, and wonder, till you find that it is furnished with glands, from which flows a kind of gummy fluid (like that which forms a spider's web), which, uniting, makes a sort of crust or general surface, which hardens in time and becomes shell. This shell is really lime, so that the snail mends his house with lime, just as we do.



Among the few shells I may linger over is the *Purpura*, a distant cousin to the humble whelk. In ancient times its little owners furnished the celebrated Tyrian purple, considered so precious that it was sold for its weight in silver, and was only worn by princes "born to the purple." To this day it is not quite known what the colour really was—some say a deep dull red, that changed in the sunlight.

Here is a big, strong, pinky-lined shell—a *Strombus*—you all know. It is often used as a chimney-ornament, though





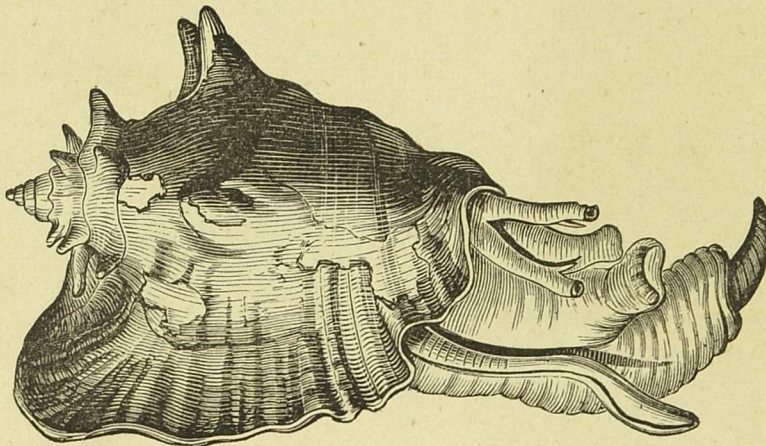
so common, I am told, in some countries—Vera Cruz for instance—that it is used for paving the streets.

See, its owner is at home. What a queer fellow, with its two horns, each terminating in an eye strong and bright, to see its way about the rocks with.

This is a Tiger Cowrie, or *Cyprea*, taking a walk. It has a brownish-white shell, hard, smooth, and shining. You may have held one to your ear many a time to listen to the constant murmur, telling of its far-off home on golden sands.

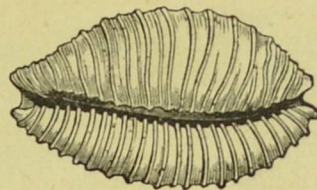
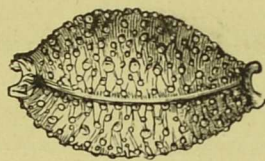
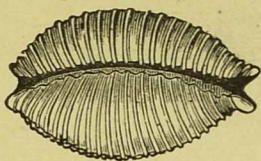
There are a great many kinds of cowries, and they have always been used as ornaments—the natives of Eastern coasts make bracelets, head-dresses, collars, and amulets of them. In New Zealand rare kinds are worn as a sign of rank.

This is the money cowrie, a little whitish-yellowish shell, gathered by the women on the shores of the Maldivé Isles,



THE STROMBUS AT HOME.

three days after the full moon, and sent to Bengal, India, and Africa, where it passes as money, just as halfpence and farthings do with us, only it takes a

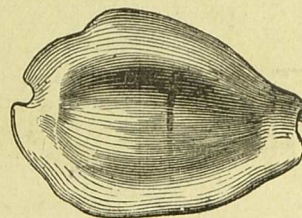
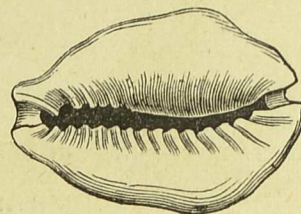
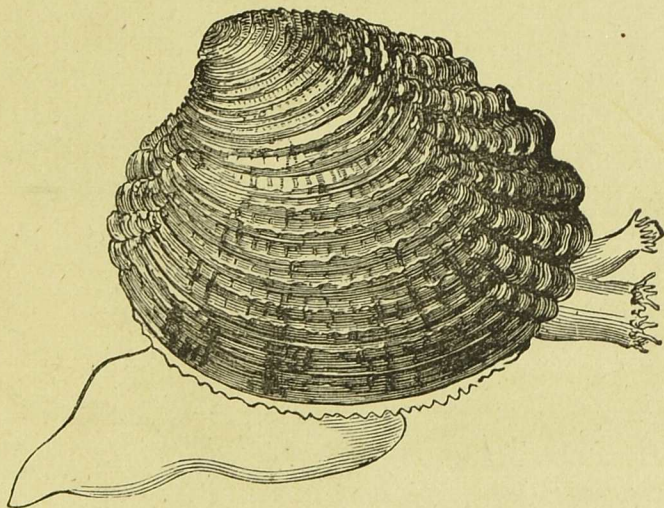
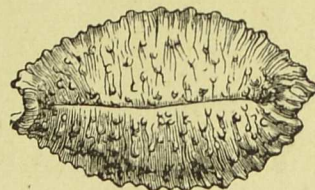
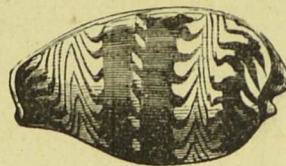


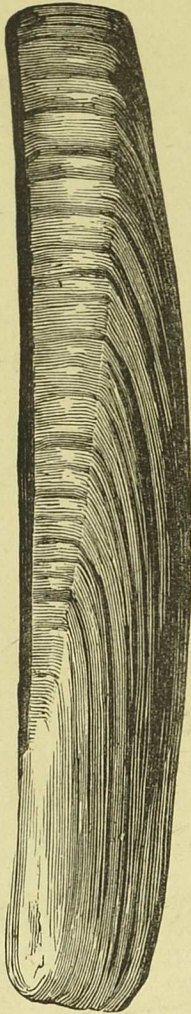
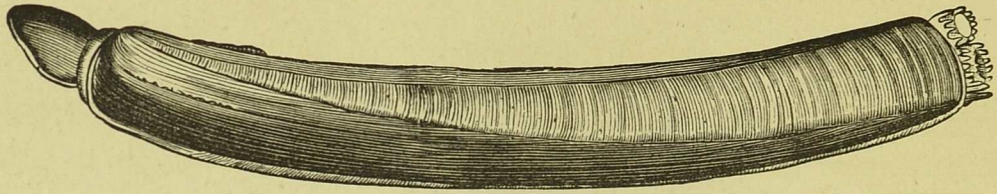
COWRIES.

great many cowries to make up a small sum.

But to return to our own coast, and a peep at the burrowing shells, of which there are many. The commonest of these are the well-known Cockle, with a foot that serves for a spade, and the long Solen, or Razor shell. These Razors live in the sands, and perhaps have sometimes puzzled you, for when they pop down out of sight they leave a sort of little fountain bubbling up behind them.

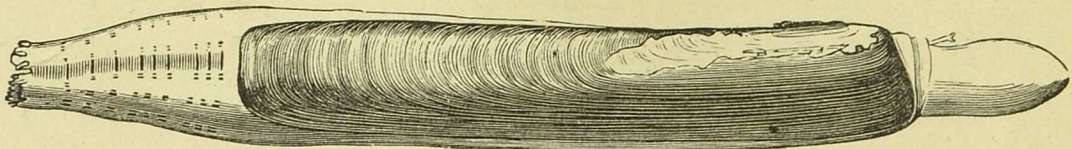
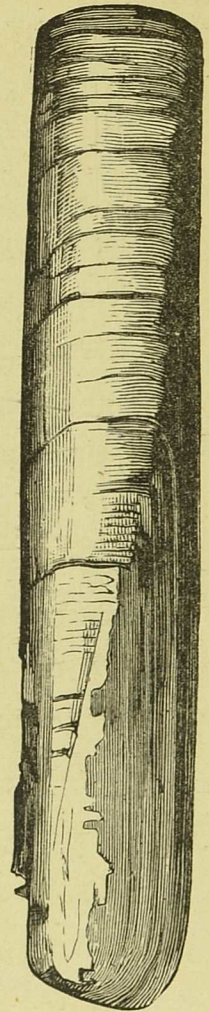
If you were to look closely at the chalky cliffs at low water you would find they were





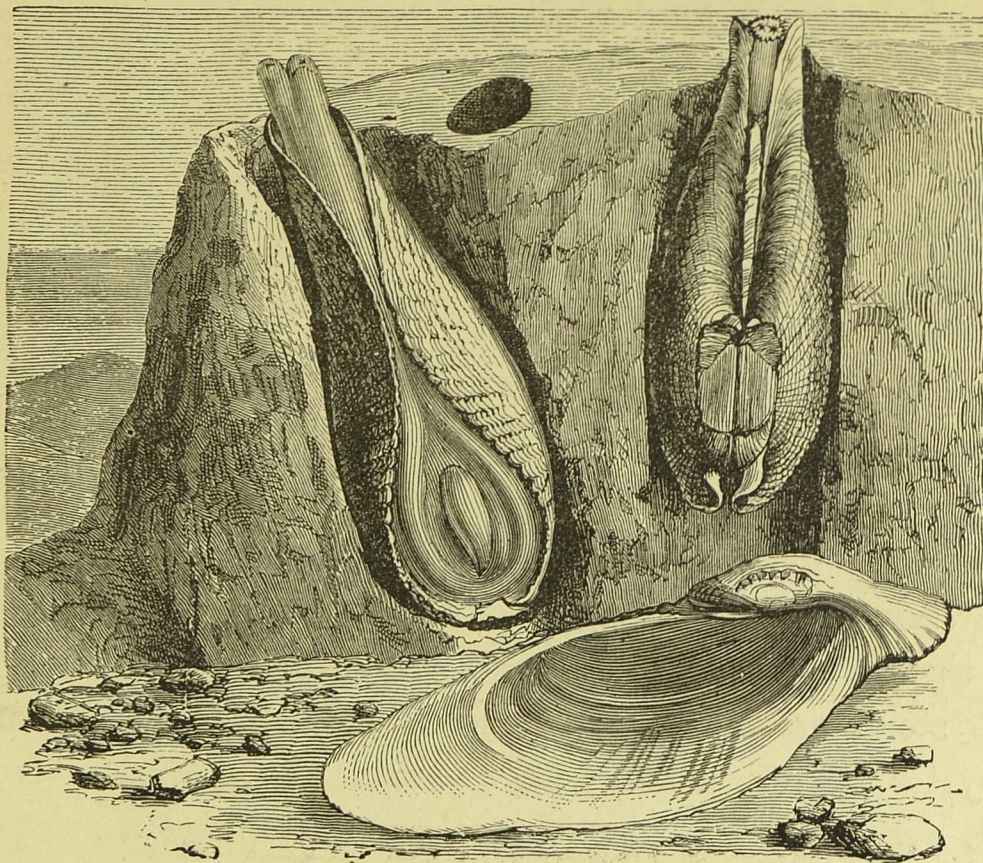
full of deep narrow holes, all made by a clever worker, known and dreaded as the Pholas, a little helpless-looking creature in its two shells, that can work its way through stones, timber, or anything else, without any apparent means for boring. Its shell is not very hard, yet it works its way through any depth of timber; attacks even the Plymouth break-water, which is of solid stone, and in time destroys all before it.

As young folks near the seaside find many a pretty thing of the kind on the sands, I would recommend them to provide themselves with a little mixture of gum and whitening, with which

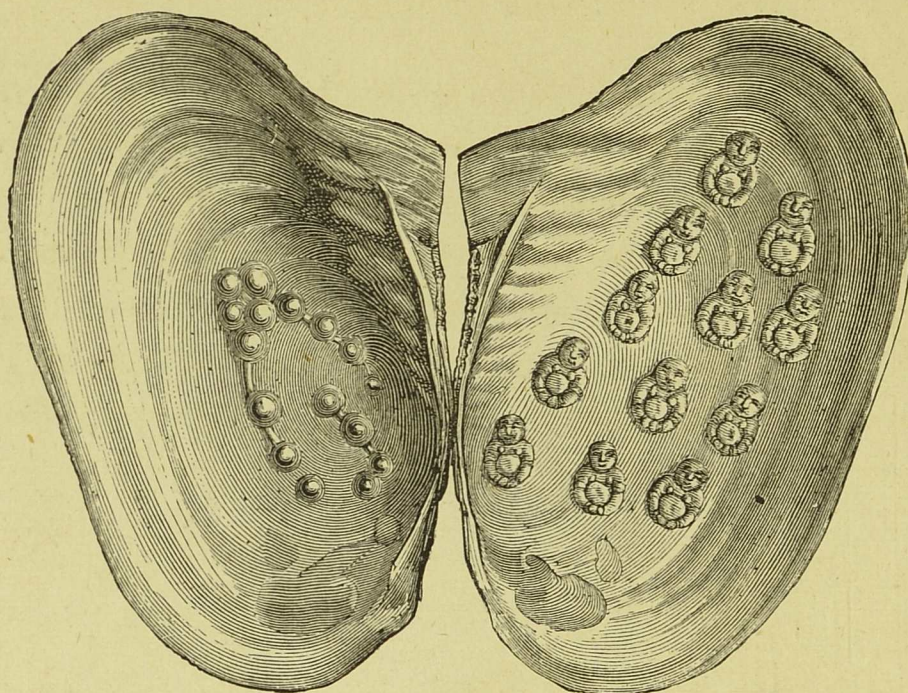


SOLEN OR RAZOR SHELLS.

they can fix their treasures on to card or wood, and so make pretty boxes, screens, or ornaments. The best plan is to trace out a simple pattern with the larger shells, and then powder the ground with little ones, which will give a pretty light appearance. Do not choose shells too easily crushed; and if you want them to look extra pretty, you can lay them in acid for a day or two, which will give them a pearly appearance.



BURROWING SHELLS.



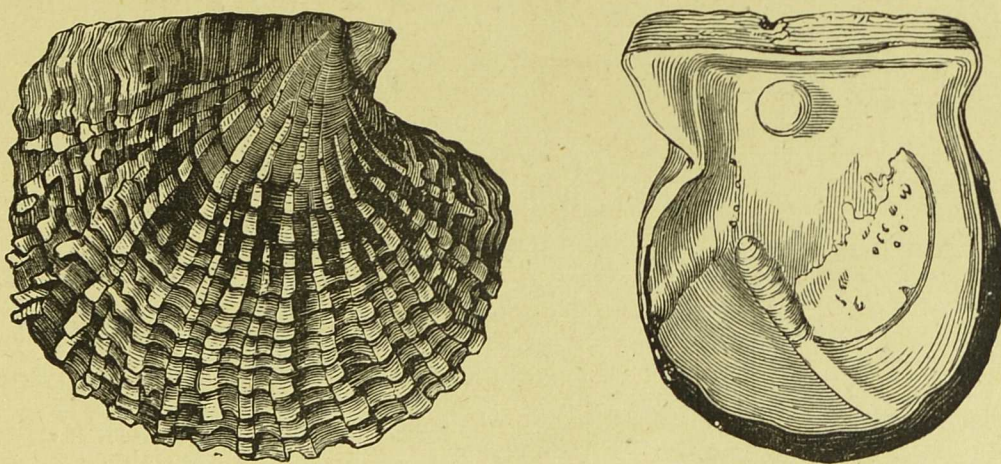
OYSTER, SHOWING PEARLS AND BUDDHA PEARLS.

OCEAN GEMS.

“What hidst thou in thy hollow caves and cells,
Thou hollow-sounding and mysterious main?
Pale, glistening pearls, and rainbow-coloured shells,
Bright things which gleam, unrecked of, and in vain.”

SOME very pretty and valuable pearls have been found in mussels, almost like those in oysters, only whiter and smaller. I daresay you know these stony drops of dew, as Orientals call them, are generally caused by some accident. Perhaps a little stone or some other thing disagreeable to the mussel or oyster has stuck fast in the interior of its shining smooth shell, over this the irritated creature has spread a substance that, drying, forms into a pearl, very tiny at first, but increasing by annual layers of this pure shining *nacre*, with which we find whole shells lined.

Eastern nations are said to profit by this pearl-making power, for sometimes they introduce little objects into the shell of a living pearl-maker; even minutely embossed plates of their god Buddha have been thus turned into pearls by the annoyed bivalve, and afterwards displayed as miraculous objects, and considered very precious—the more so as, in the East, it is believed that certain pearls are possessed of magic power, and preserve their owners from evil and danger.



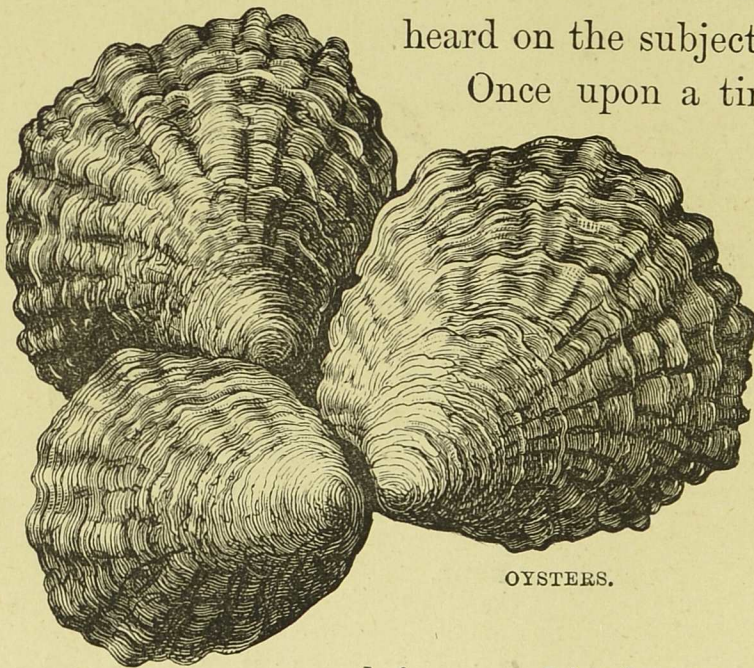
PEARLS AT HOME.

Talking of pearls, here is a Pintadine shell I must show you. Other shells may be lined with white and shining nacre, but they are only cousins or brothers of pearls. This is the real beautiful “mother of Pearl,” which is found moored by its strong byssus to the bottom of the sea, where it may lie for eight or ten years; then it is ready to be seized on by the busy hands of man, who will use it to ornament all sorts of pretty things with, first scraping off all the brown outside, and leaving only its pearly bed visible.

All that I have been saying about pearls applies to those

found in oysters, the pearl-bearing kind of which is mostly found in Ceylon, and other parts of the Indian Ocean.

So much has been written about oysters, that I think we may pass them by with but a short notice. I wonder if you like to eat them. At any rate, you will agree with me that he was a bold man who first devoured one; and this reminds me of a funny legend I have heard on the subject.



OYSTERS.

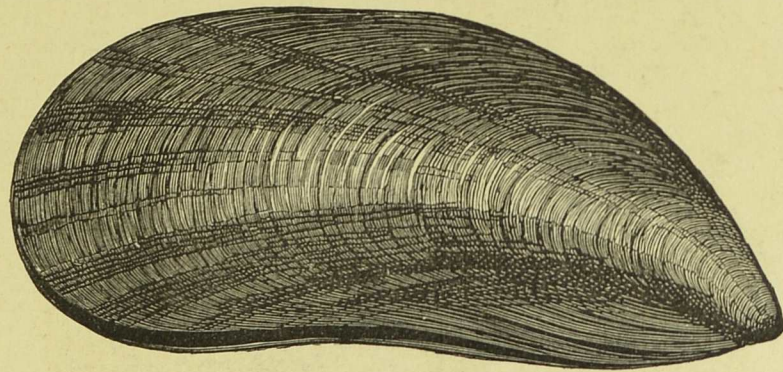
Once upon a time, a long time ago too, I should fancy, a man of melancholy mood was walking on a picturesque beach, and listening to the monotonous murmurs of the sad sea-waves, when he espied

lying at his feet a very old and ugly oyster-shell, all covered over with parasites and sea-weeds. It was altogether so unprepossessing, that he kicked it with his rude foot, and the creature, astonished at such treatment, gaped wide with indignation. Noticing the beautiful cream-coloured layers of pearl, that shone within the shelly covering, the man picked up the aged native, and the better to hold an examination, inserted his finger and thumb between its shells. This was resented by their occupier, and he quickly snapped to the strong gates, thereby pinching the intruders, and causing

them such severe pain that their owner, as soon as he could, popped them into his mouth, and did a little frantic dance on the golden sands. He sucked his fingers first for pain, then for pleasure; the great fact had flashed upon him that he had found out something most delicious, that no one yet knew of, that all would appreciate. He looked about for that aged native, flung aside in such disgust, proceeded to open its fast-closed fortress, and then and there swallowed its contents; and that was how and

where the first Oyster was eaten. Well, *perhaps* it was; who knows?

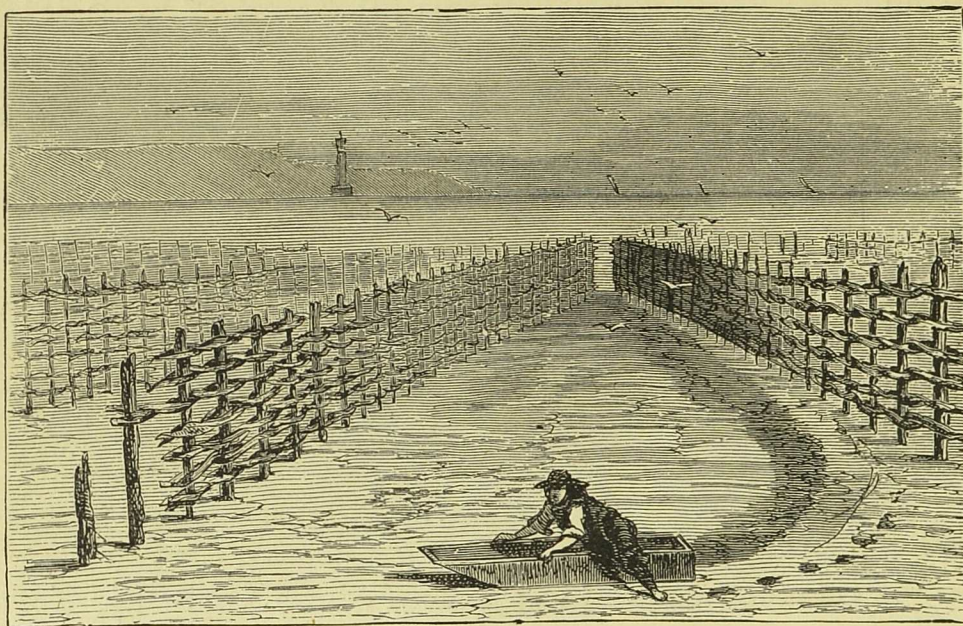
The "poor man's Oyster," as some have called the humble Mus-



THE MUSSEL SHELL.

sel, is well looked after in France, where there are *bouchots* or Mussel farms—that is, long lines of posts and brush-wood on the fore-shore, somewhat resembling sheep-hurdles, roughly interlaced together with boughs, to serve as homes or clinging-posts to the Mussels. A bundle of baby Mussels are rolled up in pieces of old netting, and these bundles are thrust between the boughs. In a short time the net becomes rotten, but by this the Mussels have firmly attached themselves by the "byssus" or cable of strong thread with which Nature has provided them, so that they cannot be washed away by the waves, though the tide rises above them half the time, splashing and dashing every way. By the time

the little creatures are as large as beans, they crowd thickly over one another in clusters and layers, like so many bees. These layers are peeled off, and taken to other *bouchots* nearer high-water mark, where they remain growing and fattening for a twelvemonth, when they are all gathered, packed in baskets, and sent off to market, while the *bouchots* are cleared and



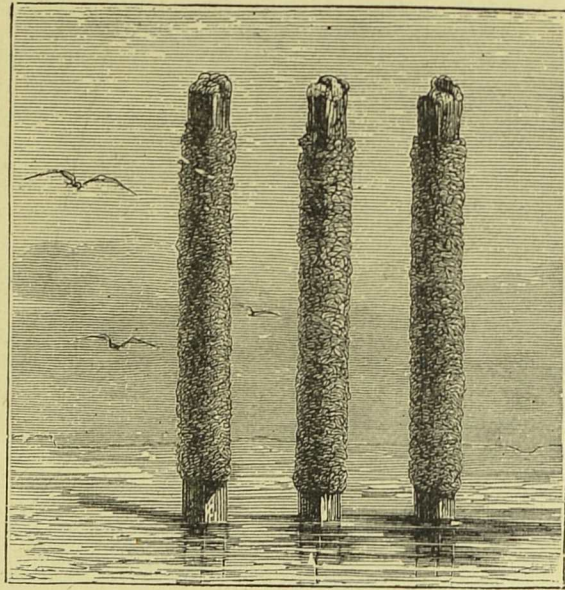
A FOREST OF MUSSELS.

made ready for the fresh families that will soon arrive in great numbers to grow and fatten and be sent off.

English Mussels are treated with far less ceremony. They are mostly at home about Essex, where they are brought from other parts of the coast, and laid in the mud of the fore-shore until they are full grown; yet after all English Mussels are considered the best, when they get to the many markets to which they are sent in great hampers. In one thing the Mussel has the advantage of his celebrated relative,

the oyster, for he has a foot—yes, a real foot, something like a finger, about two inches long, and by its aid he can move along, or hang from shelving rocks or timber piers.

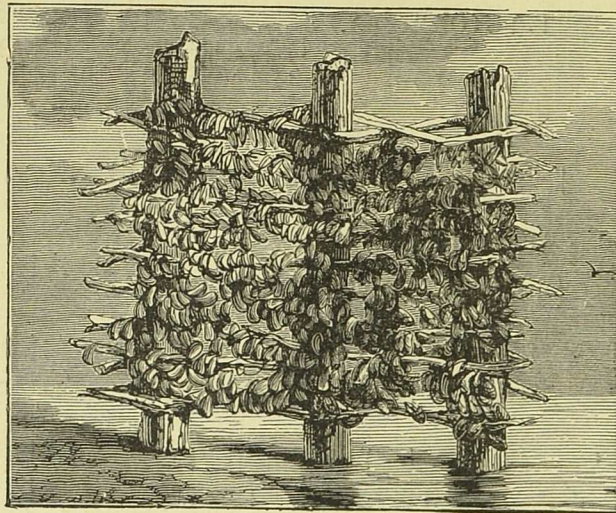
There is an old saying that “necessity is the mother of invention,” and this is certainly true as far as the culture of the Mussel is concerned. Perhaps you would like to hear the story of these *bouchots*, that have made the fortunes of many people. Long years ago—I think it was in 1235—a vessel, in which some Irishmen were taking sheep to England, was driven out of its course by a fearful storm, and was at last wrecked in the rocky creek of Aiguillon, on the French coast, near La Rochelle. Here the poor fellows suffered much distress, and all would have starved had it not been for the ingenuity and energy of Walton, the captain of the lost bark, who invented all sorts of expedients to make existence tolerable on that wild shore, which stretched for miles in interminable mud flats, whose grey dulness was all unbroken, except for the many sea-birds that continually passed that way. The captain, being a good fowler, determined to catch some of these birds. He wove a kind of net, supported on posts stuck in the mud. Many a sea-fowl became entangled in its rough meshes, serving as a good meal, besides giving its oil and feathers.



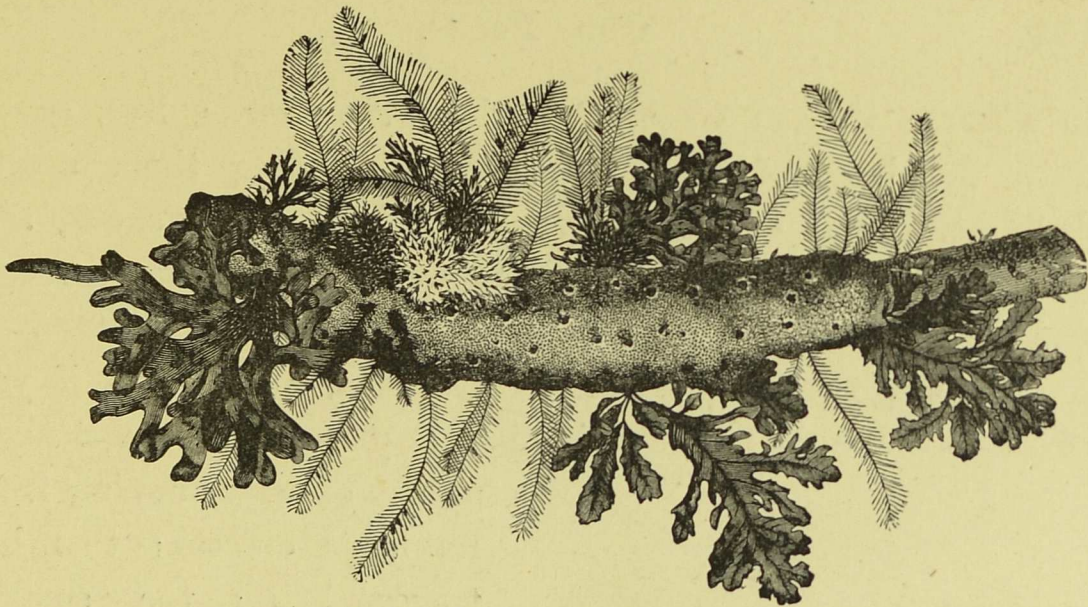
AT HOME ON A POST.

But this was not all, for after a time Walton noticed that a great many of the Mussels that swarmed in the bay collected and bred about his posts, and that those which were a little elevated above the mud became large and fat, and of a good flavour. At first he thought of this fact merely as a lucky thing, inasmuch as it would give the little party a change of food; but after a time he took to the regular culture of Mussels on posts, which is carried on in the same place and in the same manner to this day.

Besides giving us pearls, Mussel-shells are cleaned and polished and formed into many pretty and useful things—pin-cushions, paper-weights, earrings, and ornaments. So you see, though among the humblest of our Odd Folks, they are not to be despised.



A CLUSTER OF MUSSELS.



A PIECE OF SPONGE AT HOME.

SPONGES.

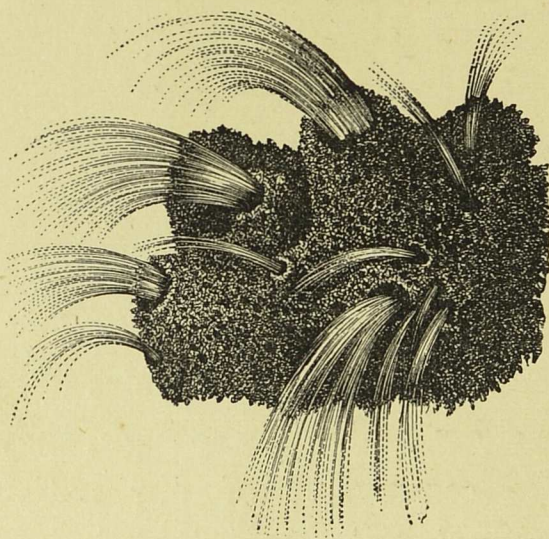
HAVE you sometimes picked up an old broken oyster-shell, all bored over with perfectly round holes? These holes were lined with something soft and yellow, and oddly enough, they are made by the "Chione," the commonest of our native Sponges, though how made I cannot tell; only that it is a spongy and tree-like branch, of no value, but of some beauty.

Sponges grow in all waters; but the good sorts are at home in the tropical seas, where men dive for them, some fish for them, some use poles and glide after them, for a living. The Greeks and Syrians carry on the largest trade in these useful things, which in rough and stormy seas spread to a large size. The deeper down they grow, the larger they are, usually.

For a long time people thought Sponge was a sea vegetable, but now we know that it belongs to the animal world; and that about April it begins to cast off stray shoots and eggs, which float away until they find some hard substance to which

to adhere. When once fixed, there they settle, live, grow, until the hand of man finds means to drag them up to daylight. Some of them have bored into corals, shells, and rocks, all being nourished by the water that passes through and through them.

A Sponge feeding seems a funny idea, I own; yet if you could examine it alive in its home, you would see a rapid



A SPONGE FEEDING.

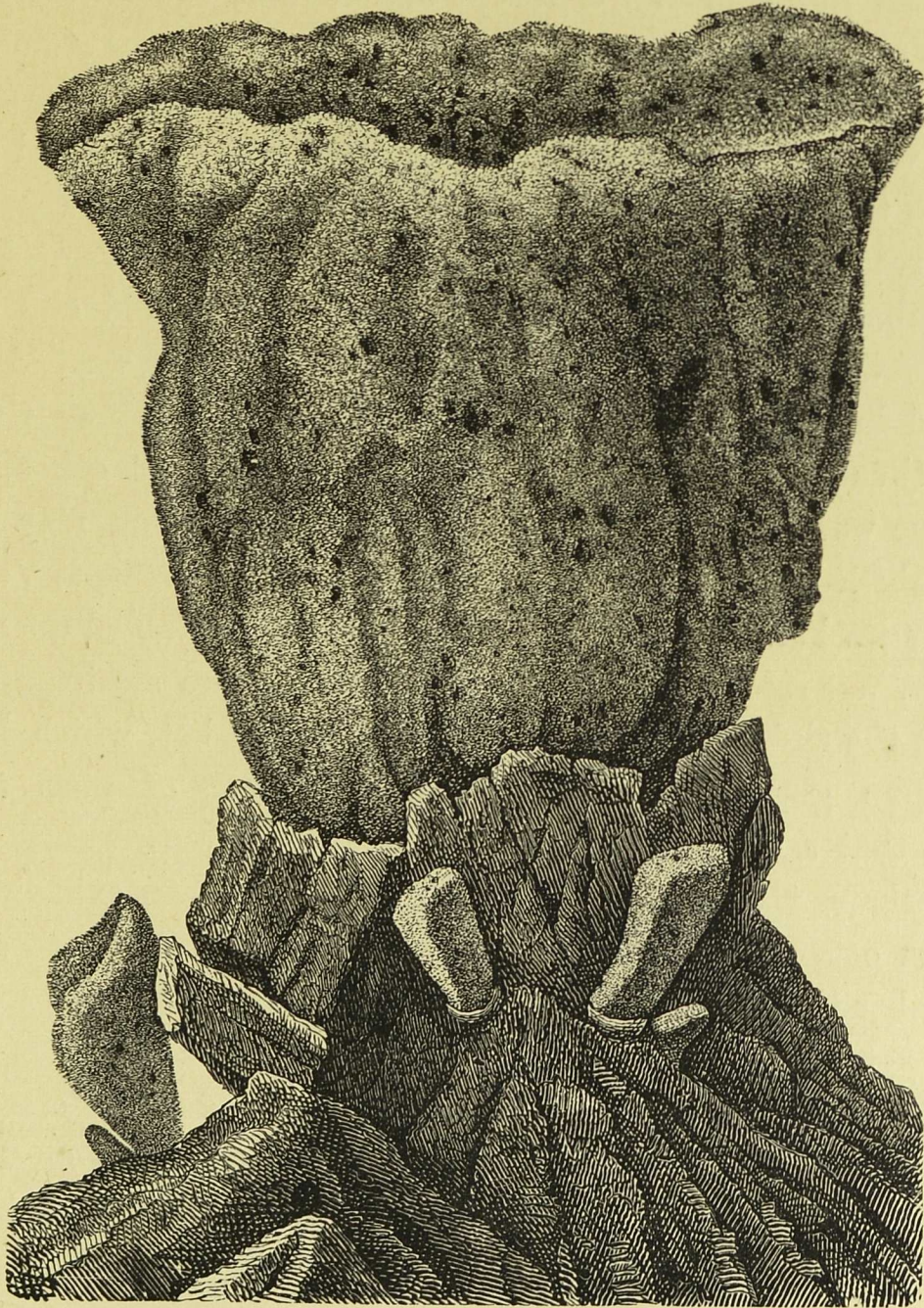
stream of water issuing from its large orifices; this has traversed all the smaller ones, carrying food and life with it.

Since people have travelled and seen so much, they have become more and more interested in the wonders hidden in the sea. Different Governments have sent out exploring ships, well furnished

with trawls, dredges, nets, and sieves of all kinds, with which to ransack and explore the far-hidden depths. The big dredge does the most work; it is a great trailing bag, with a kind of iron scraper at its opening, which stirs up and drags up all sorts of things in its way. It is so heavy that it has to be lowered from the ships by means of a steam engine, which winds it up and down.

In other times one pretty thing puzzled folks very much; it was supposed to be the work of the skilful Japanese workers in metals. Now we know that it grows, standing upright, in

the bottom of the sea, held there by soft waving threads, like



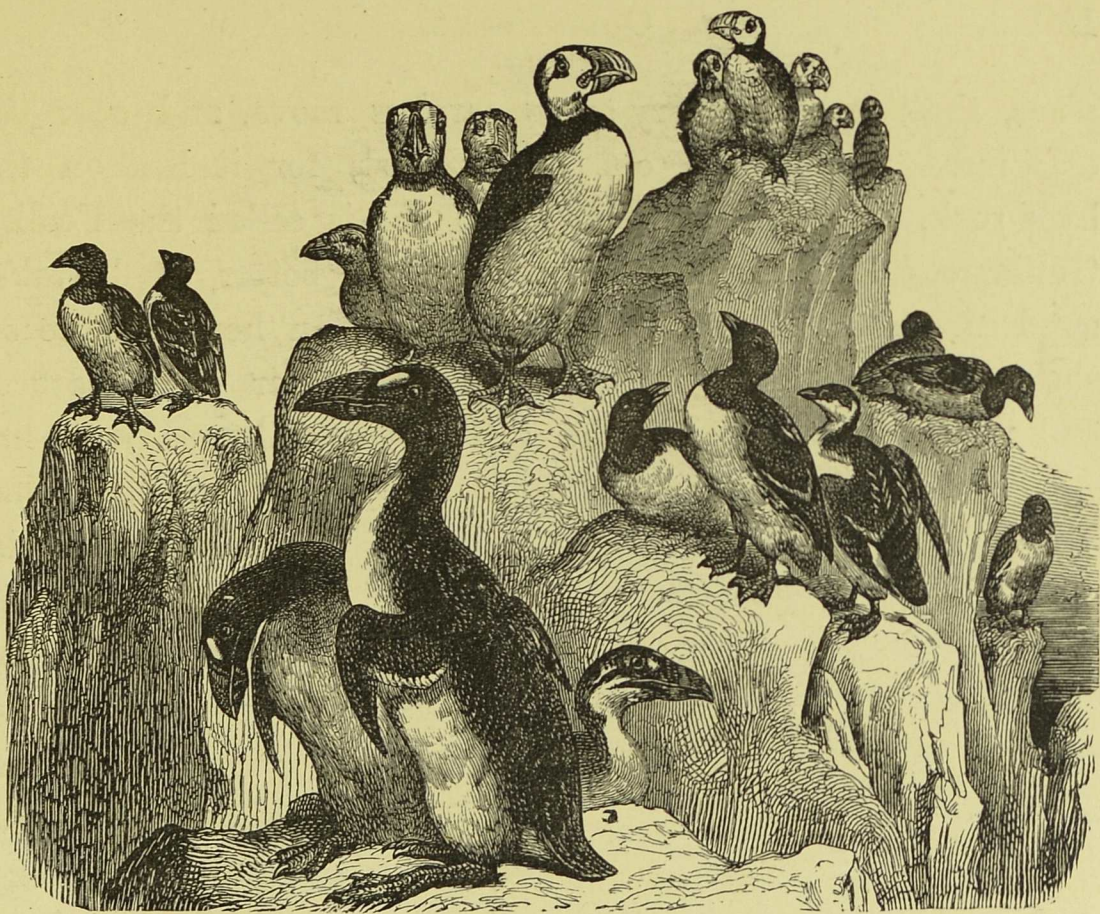
THE CUP SPONGE.

tiny rootlets. It was not pure and white, as we see it now; for there it was all covered with a grey something, like the white

of an egg. This was really the Sponge flesh, and composed of countless numbers of the tiniest animalculæ, the lowest form of life, creatures having neither eyes, nor mouths, nor stomachs, yet alive enough, if we inspect them through a microscope. They were the only workmen who formed the beautiful lacy pattern that covers the sides of the sea-queen's basket.

I read that a dredge from the *Porcupine*, dragged up after about seven hours, brought about a hundred and fifty pounds weight of mud, which was all carefully washed and riddled in sieves, in search of hidden wonders. Many things were thus secured that could scarcely be reached otherwise; and one was a very pretty thing, which perhaps you may have seen labelled in museums *Euplectella*; its easier name is Venus' Flower Basket. I suppose that as Venus, the fabled queen of beauty, was said to have been born of the pure sea-foam, this is just the right name for her foam-light basket, which looks like spun glass frosted over, or a fairy horn of pure filmy silver, that a breath might puff away.

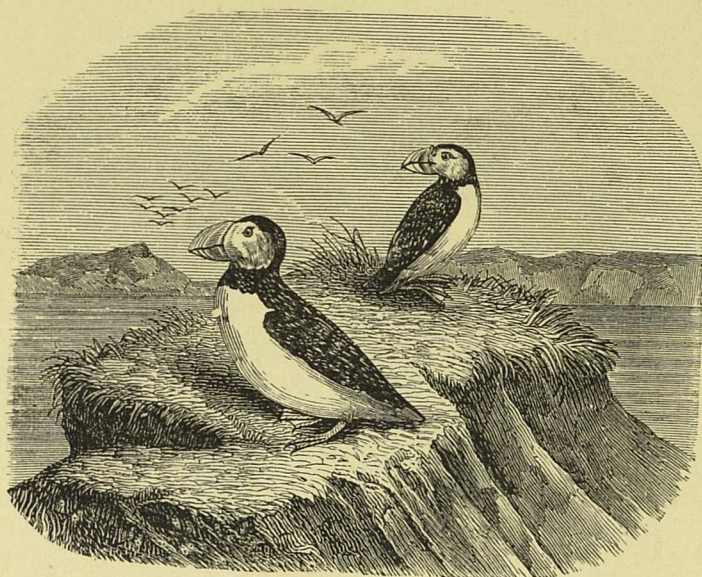
Perhaps you wonder how a thing so frail can exist in the restless ocean, ever coming and going as it seems to us; but remember that though these waves move ever, as far as we see them, yet below a certain depth this great mass of water is calm and still and warm enough to suit the most delicate creature. The great Hand that made all things never placed anything where it was not safe from hurt and harm, whether it be on land or sea.



SEA BIRDS AT HOME.

BEFORE leaving our Odd Folks let us notice a few we must often have met with in our sea-side rambles. We need not look down in the sea for them, but up to the rocks or clouds. There is one—a brownish-grey creature, with a great strong black beak like a raven's, but it does not look nearly so wise, as it sits almost bolt upright on a narrow ledge of cliff, far above the roaring, foaming sea, taking exemplary care of its one large pear-shaped egg (generally of a pale green patched with brown), which it holds closely pressed under its short wing. A dangerous

place, that, for a nursery ; one careless move, and over the egg must topple—not out of its nest, for it lies on the bare rock. But the mother for all she is called the Foolish Guillemot—I think faithful would be a better word—takes good care of it. There is quite a mark on her soft breast, showing how closely pressed she holds her one treasure ; and really it is as well she scarcely ever leaves it, seem-



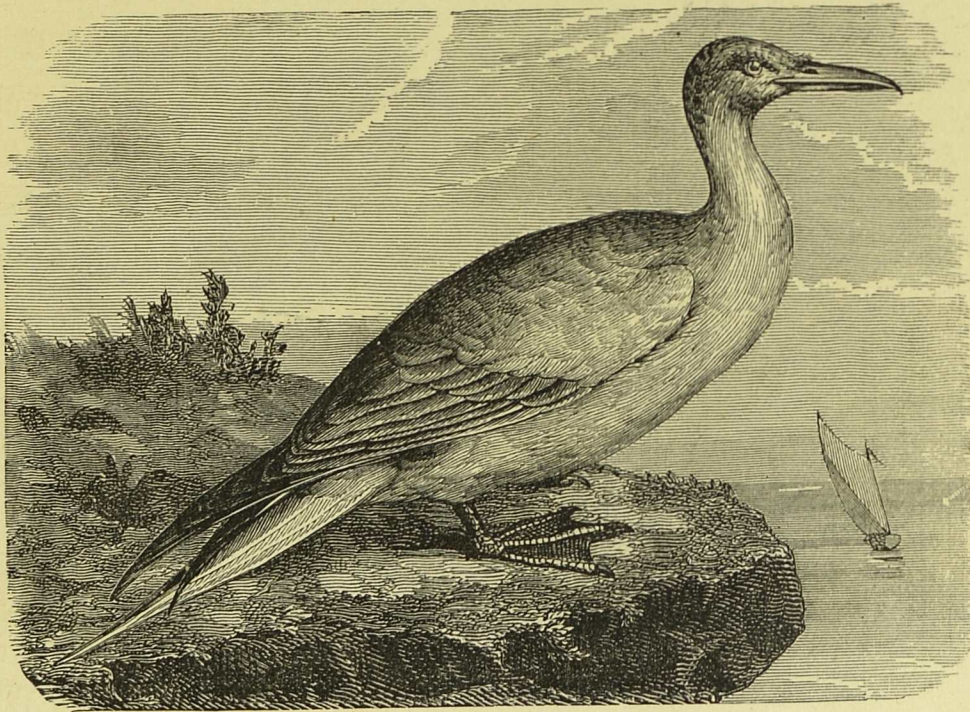
SEA PARROTS.

ingly knowing that not only man but the gulls and ravens in the neighbourhood are on the look-out to get possession of it ; should a sea-gull get a chance of one, he will fly full tilt at its small pointed end, using his beak as a lance to transfix it, and fly away with

his prize stuck before him like a great white pear. Having sucked out the contents, he drops the empty shell, which may be picked up by some one who will most likely be puzzled to account for the round great hole in it.

When we see Guillemots, we may be pretty sure there are Puffins or Sea Parrots near. And what a queer bird a Sea Parrot is—some irreverent people call him “Bottle Nose,” because of his grey hooked beak, which, awkward as it looks, serves his purpose better than a prettier one might, for with

it he burrows out his nest in rocky places, or fights the hungry gulls and ravens that would fain steal his eggs; above all, with it he can snap up the small fish which he lives on, and which he adroitly dives after. Sometimes, he may be seen with half a dozen sprats hanging in a straight row, like a fringe held by that sneered-at but useful beak. So, you see, the



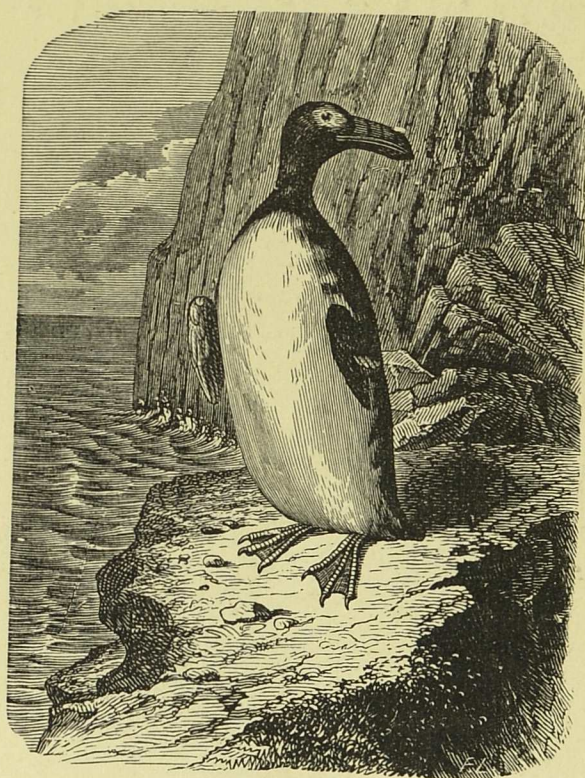
GANNET OR SOLAN GOOSE.

bird is not so badly off, after all, and what we call odd, or ugly, is simply useful and fitted for a Sea Parrot's need.

I must not forget to show you where—

“Down rushing from his cloudy height,
With stronger bill, and swifter flight,
And heavier weight, and broader sweep
Of pinion, plunges in the deep
The snow-white Gannet.”

What a horrid noisy cackle it makes, as it waddles clumsily along, staring at us with its goggle-eyes, looking so lumpish and stupid on land; yet, suddenly, off and away it darts, all its clumsiness gone. It looks light and beautiful enough now. Perhaps it sees a shoal of herrings coming, rushing through the waves. Watch



THE PENGUIN.

how it rises like a kite right above the thickest of the advancing crowd. Then it closes its wings and drops straight down like a stone, rising in another moment with something that looks like a strip of silver. Good-bye, poor herring! Mr. Gannet has secured a breakfast.

The Penguin is a large bird, which is exceedingly numerous in Arctic regions. It is so called from two Welsh words—*pen*, head, and *gwyn*,

white. As the Penguins stand erect all along the edge of a cliff, they are said to resemble rows of children in white aprons. They are very stupid, and when one is knocked over with a stick, the rest stand still and wait their turn. They have extraordinary powers of abstinence, for they will go a long time without food. Their mode of feeding their young is very curious. The old bird quacks and brays awhile, and then puts down her head with her mouth wide open. The

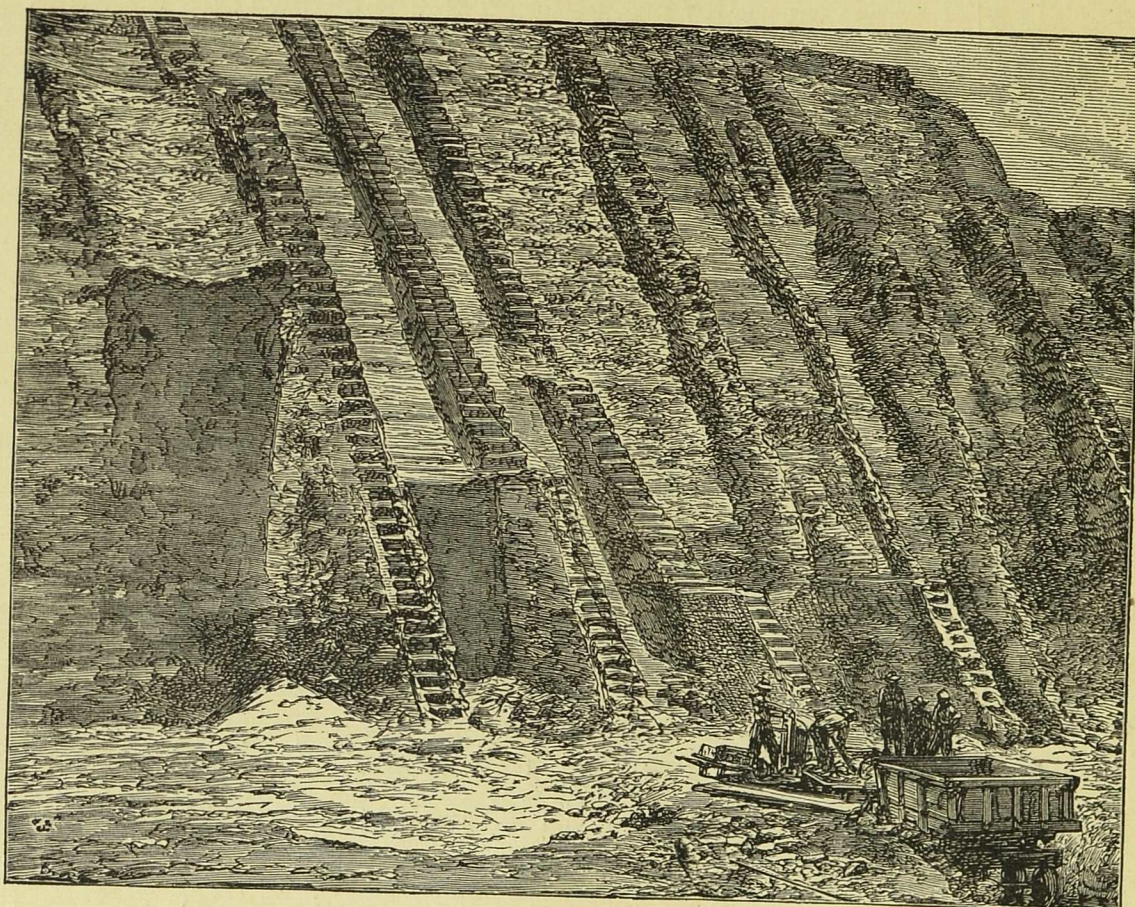
young one straightway thrusts his head in, and appears to suck from the mouth of his surprised-looking mother.

There goes a Penguin ; how awkwardly he flies about the beach ! But some one who has studied the manners and customs of Penguins at home, tells us that water is the right place to see them in—clumsy and awkward on land, they are pretty and graceful in the sea. Speaking of one of the bird-islands he has visited, he says, as nearly as I can remember, that, “As you come up to a great group of a hundred or more birds, squatted on the beach, they all stare at you—some with red eyes and black pupils, that give them a strangely vicious appearance. Then thinking there is something wrong, they all turn round together, and go hopping off over the large stones, their yellow crests flopping up and down at every hop, bobbing their old heads, hunching their old backs, and wabbling their flappers. Away they go, hopping rapidly, yet stopping after every jump to recover their equilibrium.”

The Guano Islands are the real home of the Penguins. Here they have congregated in countless numbers for ages past—no blooming flowers, no thick green trees, nothing to our minds associated with birds to charm them or us—not even one green shrub ; all is of a dull, dark, leaden-hued colour. Yet here these swarms of sea-birds come to roost, filling the air in countless flocks, and dotting the waters around in every direction.

As the surface-matter composing these islands forms an excellent manure to scatter over barren farm-lands, gangs of men are ever employed digging at the great sloping hill-sides, over 125 feet in height. The guano is worked away by stages

or blocks, reached by steps from the top downwards, as you see in this sketch. Then it is shovelled into trucks, which work on trams, carrying it to the edge of the island—that is, to the top



COLLECTING GUANO.

of the high cliffs, over which you can peep down far into the clear waters below, and at the rocks around.

It is no easy task even then to get a load on board one of the many vessels clustered round the jagged rocks. The only safe way is to throw it down strong canvas tunnel-like bags into the boats beneath; but sometimes, if the sea is rough, the bold little vessel gives a dip and a lurch, and the soft, crumbling

brown masses come plump on to the poor workers—mostly South American Indians—and send them headlong overboard. Many a boat has been dashed to pieces, and many a life lost, off these far-off islands. I will end with another quotation from the same traveller:—

“When first we landed we were very much puzzled to see a large odd-looking kind of fish leaping out of the water in shoals, and so proceeding rapidly along. But at last some one cried, ‘Why, they are Penguins.’ And so they were—a strange sight—all about the beach, and truly in



PENGUIN-HUNTING.

thousands, sitting on their nests, which merely consisted of a layer of grass. It was, as you may imagine, most unpleasant walking about this rookery—dreadfully dirty, and smelling horribly, to say nothing of the fierce digs we got in our legs, and the fiendish noises, something between the last notes of a donkey’s bray and the cry of a deep-voiced sheep.

A perfect roar of this kind is kept up all night, and is heard far off at sea.

“These birds never have more than two eggs, sometimes only one, coloured dirty white, with brown stains. The babies were all just out of the egg—black, naked, egg-shaped, palpitating little creatures. Many of the eggs were cracked by the young inside, which were poking their bills out. There were signs of fish in the rookery, where the motherly old birds were sitting, looking awfully fierce, and glaring with wide-open beaks, braying hideously, and, if you came near enough, biting and pecking very hard indeed.”



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