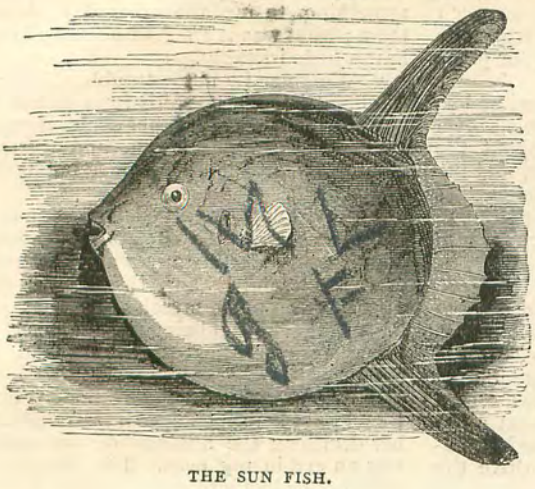
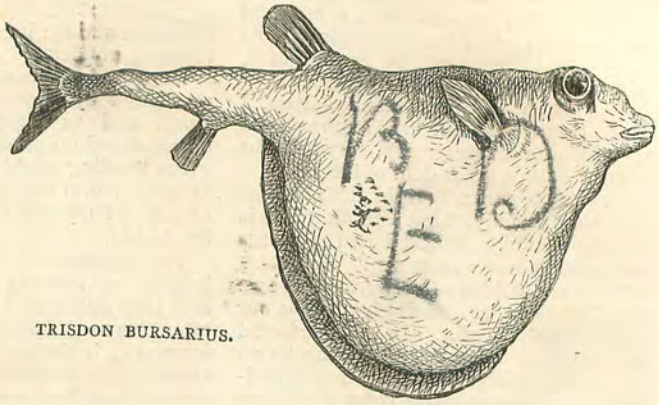
WONDERFUL FISH.

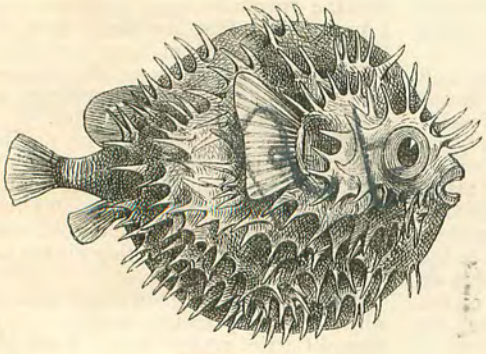
By FREDERICK WHYMPER.



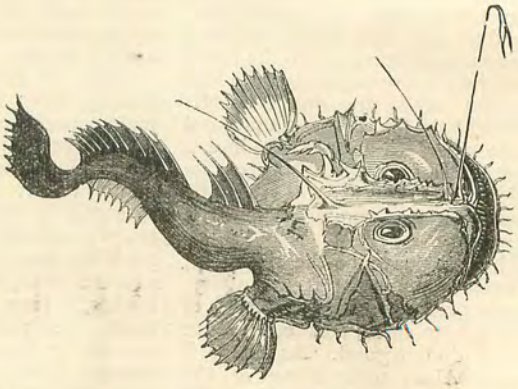
THE SUN FISH.



TRISDON BURSARIUS.



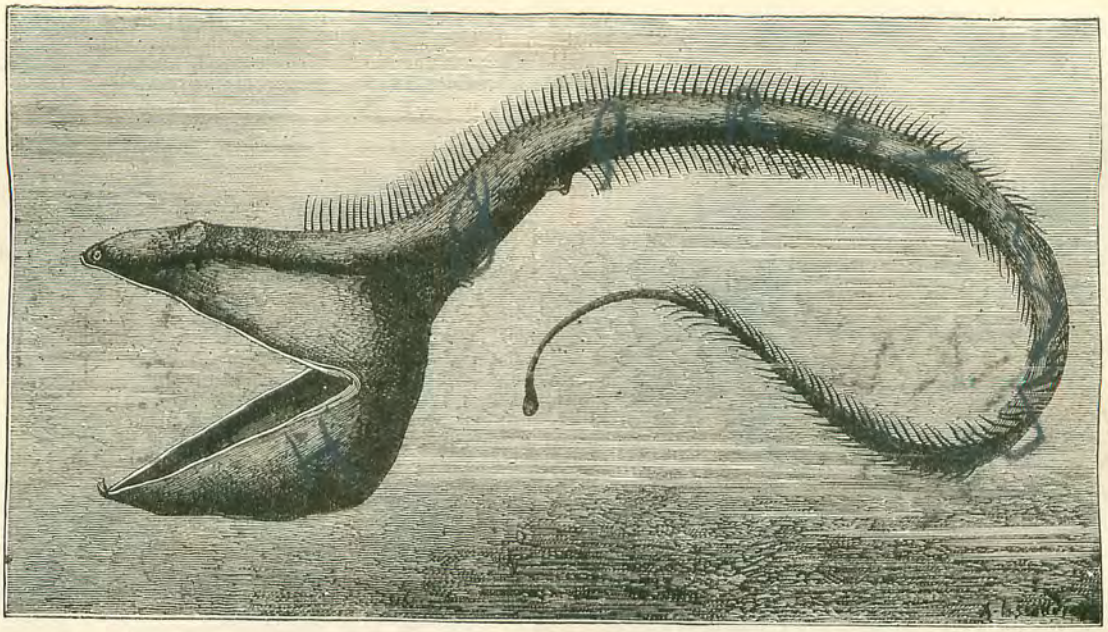
GLOBE FISH.



THE FISHING FROG.

PLATAX GAIMARDIN.

YOUNG ANGLER.



PELICAN FISH.

ALL the works of the great Creator are wonderful, and the term is only used in the present case to denote and specify those which are especially so, either as regards form, appendages, habits, or characteristics. Our ideas of fish are *generally* of a pleasant kind, apart from that practical side of the question which regards them merely as so much food—

HAMMER-HEADED SHARK.

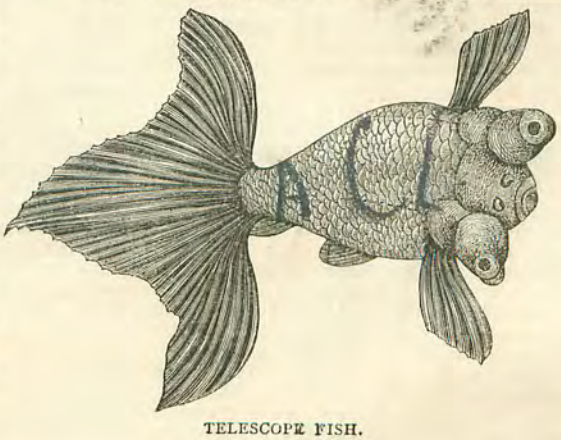
and very good food, too. When we see them darting, leaping, diving, and playing in the water, whether in the cool recesses of some wood-girt pool, in the clear, green deep sea, or even in well-kept aquaria—like those of Brighton, the Crystal Palace, and the Fisheries Exhibition—their shining silvery scales, their "fins of various dye," their gay, bright spots, bands, stains, or stripes, mark them as "things of beauty," demanding all our admiration. Their figure, also, is generally graceful, and their movements agile, lively, and rapid, denoting keen enjoyment of life in their particular element. In strong contrast to these, however, are many forms so ugly, squat, repulsive, or vicious that one instinctively recoils from them. No branch of the animal kingdom is more remarkable for varied and curious figures and shapes. Thus we have flat fish, round fish, and fish almost square. Some may be said to be all head and no body, and others all body and no head.

People commonly speak of "fishing" for whales, though the whale is no true fish, and is classed by naturalists as a mammal, because, unlike fish, it suckles its young. What was the largest fish ever known would be a conundrum difficult to solve. In ancient fable, there was a giant named Geryon, for whom the people, his vassals and slaves, caught only the finest and biggest fish, occasionally securing one the body of which offered an acreage as great as that of the isle of Crete. When it was the kingly giant's pleasure to dine, which he did at intervals of several months, the Sardians, Lycians, Paphians, and other people vied with each other in felling down huge trees to cook it. "Then they piled up the forests they had cut down into a vast pyre, in circuit equal to a city; and having let a lake into the caldron that was to seethe it, and carried for eight months in succession a hundred daily waggon-loads of salt to season the pot, they kindled the crackling mass, and as it flamed up, five galleys, every one of which carried its five banks of rowers complete (sets of slaves on different decks, one above the other), cruised round the margin of the caldron sea, and as it bubbled up, issued prompt directions to the crowd below not to overboil the contents."

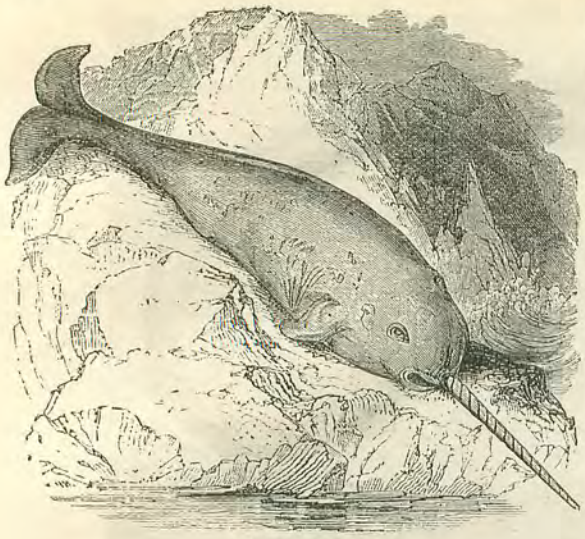
"Was not that a noble fish to
set before a king?"

Unfortunately we are left in the dark as regards the species of this magnificent fish. Serious history, however, records a turbot (which some have tried to debase to a brill) of such monstrous size that the vast resources of the Emperor Domitian's kitchen could not provide a pot or other apparatus nearly big enough to hold it. A French naturalist describes a turbot as big as a small whale, and one was taken off Whitby not very many years ago which weighed thirteen stone eight pounds (190 pounds), and measured six feet across. Where was the kitchen in the land which could have cooked it whole?

Many fish attain at times these exceptional growths. The stuffed sturgeon, or models thereof to be seen at South Kensington, are, for example, mere babies in comparison with those often taken in the Volga, Danube, and other great rivers, both of Europe and Asia, and which sometimes take a yoke of oxen to drag ashore when hooked or netted. They occasionally reach a weight much exceeding an English *ton*, and have been known upwards of 2,800 lbs. weight. In the case of a female of that size, the eggs alone—which go to make caviar, that delicacy of Northern Europe, so little appreciated in England—would weigh nearly 800 lbs. Examples of the halibut, which commonly attains a weight of 300 lbs. to 500 lbs., with a length of six or seven feet, have been taken off Greenland and Iceland twenty feet in length, with proportionate weight. A single halibut, it is said, has fed the entire town of Reikiavik, in Iceland, for a whole week! The sun-fish—an enormous example of which measuring seven feet in diameter, taken off the west coast of Ireland, might have been seen at the International



TELESCOPE FISH.



NARWHAL.

Fisheries Exhibition (in the New South Wales Gallery, near the large Australian fish, the heads of which seem suddenly to have come to an abrupt end, as though they had been scalped or decapitated), and which is an edible fish, often attains a weight of several hundredweight. Its great circular sides reflecting the sun on a bright day, resemble the dazzling silvery reflector of a lighthouse; hence its name. By night it shines brightly from its own phosphorescence. "When many of these fish rove about together," a Frenchman tells us, poetically, "mingling their silvery trains, the scene suggests the idea of dancing stars." The flesh is fat and rank, and would not suit refined palates, yet it sometimes reaches the markets of Paris, the *chefs* of which city do their best with sauces and flavourings to disguise its oily coarseness. An allied genus, the globe-fish, or sea hedge-hog, which, unlike its big brother, is covered with spikes, is often to be seen in a mummy form, hanging from the ceilings of naturalists', and, occasionally, of old-fashioned druggists's shops. Some of these species are poisonous. Abroad they are often used as weather-cocks on church steeples or tall trees, and their inflated skins are utilised by the Chinese for making ornamental lanterns. These globe-fish have much the ordinary fish form till they inflate themselves. One is so represented in our engraving.

Distinctly allied to the above-named fish are the curious pipe-fish, occasionally to be found on our beaches, and the hippocampus, literally the horse-fish, but known generally in England as the seahorse. This little creature rarely attains a length greater than four inches except in a larger Australian variety, which has branches emanating from its body, making it resemble a mass of foliated coral of a delicate kind).

A most remarkable fish, known only to the Indian Ocean, and which is also given in our illustrations, is that scientifically known as *Platax*. Two of its great fins, stretching far behind its misshapen body, resemble wings more than anything else, while a third, hanging from its ugly head, gives it the appearance of being bearded—with a long, thin, pointed beard like a Yankee of days that are long since past. Its tail is quite a small affair compared with these fins. Nothing, too, can be much odder in form than the *Trisdon bursarius*, which has, as it were, an enormous pouch. In this case the fins are so small that they are hardly worth mentioning. The head, with its enormous glaring eyes, is otherwise not unlike that of a sheep. The body is rough, and covered with small bristles and knobs. But a single species is known of this rare fish, which is also an inhabitant of the Indian Ocean.

Perhaps the most remarkable, as most certainly the ugliest, fish of which we have cognizance is that known variously as the angler, fishing frog, sea-devil, or toad-fish (*Lophius Piscatorius*), and which, as Mr. W. Saville Kent, the distinguished naturalist, who is now curator of the great aquarium at Manchester, has shown, has been, even in the latest popular works on natural history, completely misunderstood and misrepresented.

The angler has been described as a gigantic tadpole blown out to the size of a porpoise; and, indeed, there have been some known to attain an even greater size (several authors mentioning examples up to seven feet, and Pontoppidan one of twelve feet in length), with an immense head. The mouth extends on either side far beyond the width of the body, and bristles with hooked and mobile teeth; its skin is cold and clammy, and it has a pair of hand-like fins planted close under the throat. The singular conformation of the bones of these fore-limbs is very similar to that of our wrists, and they can use them practically as legs, and by their aid creep about the sea-bottom. Some of the foreign forms, familiarly known as walking-fishes, perambulate the shore when the tide is low is search of food. Rondolet found one early one fine morning on land, holding a fox fast by the leg. Reynard had apparently been on his nightly prowls in search of chickens, when he had inadvertently "put his foot into it," and the capacious trap-jaw had closed upon him. The most cunning of land animals had been overmatched by a fish.

Extraordinary also is the modification of the first back-fin, the rays of which are separate, and one of which bears at its extremity the membranous "line" which gives it its popular name. That the fish used this apparatus as a fisherman does his rod and line is a tradition dating from the most ancient days; nevertheless it is untrue, although the fish may fairly be said to "angle" with it. Mr. Saville Kent has given a graphic description of a fine specimen, four feet in length, which had been secured alive for the Manchester Aquarium. "It was in the first place observed on that occasion that the fish, while quietly reclining upon the bottom of its tank, presented a most astonishing resemblance to a piece of inert rock, the rugose prominences in the neighbourhood of the head lending additional strength to this likeness. This resemblance being recognised, it was next found, on a little closer inspection, that the fish constituted in connection with its colour, ornamentations, and manifold organs and appendages, the most perfect facsimile of a submerged rock, with that natural clothing of sedentary animal and vegetable growths common to boulders lying beneath the water." Thus small sponges and other zoophytes which grow on rocks at the sea-bottom are closely imitated by certain of the angler's appendages. The "rod and bait" finds its counterpart in young sea-plants, such as the oar weed, while the eyes are raised on conical elevations, with striped sides, reproducing with wonderful minuteness the shell of a rock barnacle. These are only a few of the subterfuges by which this fraud of the ocean conceals his identity, and thus disguised, often lying half buried in the sand, perhaps gently waving his line to attract attention, his jaws are constantly going "snap," and his belly is always well filled. The foolish "small-fry" are not his only victims, for the grey mullet, known as a very hare among swimmers, one of the most agile and nimble of fish, is often deluded into his great open trap and securely bagged.

While speaking of gaping jaws, one must not forget one of the very latest discoveries, popularly described as the wide-throated pelican-fish. M. Vaillant tells us in the pages of a French scientific periodical that, in the latest voyage of the exploring vessel *Travailleur*, this most singular creature was, for the first time on record, revealed by their deep-sea dredging. The animal, about seventeen and a half inches long, has a snaky body with double row of spines on back and belly, and is of a dark colour. It is to the enormous head, however, that attention is specially directed, the jaws of which are prolonged far back into the body. The mouth attains a prodigious development compared with the size of the animal, the upper jaw being hinged to the side of the head and upper part of the body by a strong membrane, capable of great distension, like the pocket of a pelican. The distended mouth gives to the animal much the appearance of a large funnel, the body representing a long pipe. In the pouch-like lower jaw the food can be stored, and is, perhaps, partially digested, as in some other fish. Its place in natural history can hardly be said to be at present determinable; it may be regarded as a new type.

Almost as curious, but far better known, is the great fish, ten or twelve feet in length, and weighing several hundred pounds, the cognomen of which accurately describes him as the "hammerhead." He is a shark of most shark-like propensities, and his fury when he gets entangled in a net, as he sometimes does, is of the most ferocious nature. His vicious hungry eyes are set in one end of the "hammer." Another curious fish, a very small Indian variety, in which the eyes are set in two projections, not unlike opera-glasses, has been described by Dr. Günther, and entitled the "telescope-fish." Perhaps the "binocular" might have been more appropriate.

"Fish," a clever writer has said, "being more distinguished for the size of their heads than for the amount of brains lodged in them, and affording consequently an easier capture than either beasts or birds, fell early victims to the crafts and assaults of their arch enemy, man." Nevertheless man has learnt much from fish, however stupid they may be considered. He *may* have been first induced to attempt to swim by watching their graceful, easy undulations in the cool waters; he *may* have been taught to shoot by them, for the Chætodon, an oriental fish, ejects through his beak watery bullets with the greatest accuracy, bringing down his game, in the form of insects, with almost unerring certainty. War-like instruments of other kinds *may* likely enough have been suggested by such terribly belligerent animals as the sword and saw-bearing fishes, and the jaws of the shark *may* have been the embryotic idea from which shears and scissors first came into existence.

The spear of the narwhal, the blade of the sword-fish, and the serrated beak of the saw-fish are all powerful instruments of offence and defence. Nothing whatever, alive or dead, animate or inanimate, is safe from the furious onslaughts of the sword-fish; for whales in particular he has an undying, unrelenting hatred; while all the larger fish, boats, bathers, aye, and even rocks themselves, are liable to assault and battery from his savage

attacks. An old Roman writer records the latter fact in the following couplet :

"Struck by the blade, the sounding stone gives way,
And shatter'd rocks their secret veins display."

In the Mediterranean one sword-fish will put to flight a shoal of thunny, leaving his marks, however, all over the waves, in the shape of bleeding, dying, and defunct fish. At Genoa the term "*pesce spada*" is often changed for that of "*imperatore*," but even here the allusion is to the sword; Roman emperors being represented in ancient Italian pictures with sword in hand.

This pugnacious fish will often chase a small sailing vessel, and speed like a flying spear shot from some powerful artillery right in between her ribs. The bottoms of large wooden vessels have often been pierced by it, and those on board have thought, feeling the concussion produced by the onslaught, that they had struck a rock; at the end of the voyage a broken blade has been found embedded in its timbers. Iron vessels, more especially ironclads, are rather too much for it, but that it would just as readily attack them is indubitable. It is believed that it attacks ships, thinking them, in its short-sighted rage, to be whales. Yarrell cites the case of an unfortunate whale attacked both by its enemies the "thrashers" and a sword-fish. As soon as the back of the ill-starred monster rose above the water the thrashers leapt several yards into the air, and struck him with their powerful tails as they fell, the reiterated percussion of which, it is stated, sounded like a distant volley of musketry. The sword-fish meanwhile attacked the whale from below, getting close under his belly, and with such energy and effect that there could be little doubt that he was soon reduced to a mass of helpless blubber. These fish are often on a very grand scale, and specimens as long as ten feet have been stranded on the Essex coast. Large Mediterranean examples reach twelve, fourteen, or even a greater number of feet, though those for sale in the fish markets do not usually exceed four to six feet. The flesh is highly esteemed, and the round fillets look and taste somewhat like veal.

Fish, however, are not limited to ordinary weapons of the kind above described, for some of them long antedated the invention of the frictional electric machine, the galvanic battery, or the modern electro-magnetic apparatus, and gave shocks *ad libitum* long before man knew anything whatever about the science. The gymnotus, of which there are five varieties, though scarcely as big as a large conger, can bring the sword-fish to a standstill, stun leviathan at a distance, and lay the fiery courser low beside him. No one has as yet given a more graphic and lively description of these creatures than Alexander von Humboldt, his information being derived from M. Bonpland, who made the observations recorded in Caraccas, prior to his voyage up the Orinoco.

"Having remained," says this narrator, "for three days to no purpose in the town of Calabozo, and receiving but a single living eel, and that rather weak, we resolved to proceed to the banks of those pools in which the gymnoti abound, and make our experiments in the open air. . . . We were greatly surprised when we were informed that the Indians were going to catch about thirty half-wild horses in the neighbouring savannahs, to employ them in fishing for these electric eels. . . . While our host was explaining to us this strange system of fishing, a troop of horses and mules arrived. The Indians had made a sort of enclosure around them, and pressing them closely on all sides, forced them to enter the water. . . . Being provided with very long reeds and harpoons, they placed themselves around the basin. Some of them mounted upon the trees, whose branches overhung the surface of the water. They all prevented, by their cries and by the length of their reeds, the horses from attaining the shore. The eels, stunned and confused by the noise of the horses, defended themselves by the reiterated discharge of their electric batteries. For a long time they seemed likely to gain the victory over the horses and mules; these were seen in every direction, stunned by the frequency and force of the electric shocks, to disappear under the water. Some horses, however, rose again, and in spite of the active vigilance of the Indians, gained the shore, exhausted with fatigue; and their limbs being benumbed by the electric commotions, they stretched themselves upon the ground. I could have wished that a skilful painter had had the opportunity of seizing the moment when the scene was most animated. The groups of Indians surrounding the basin; the horses with their manes bristling, terror and anguish depicted in their eyes, trying to escape the storm which surprises them; the yellowish and livid eels which, like huge aquatic serpents, are swimming on the surface of the water, and pursuing their enemy; all these objects presented, without doubt, the most picturesque assemblage imaginable. I remember the superb picture of a horse entering a cavern, and frightened at the view of a lion. The expression of terror is not stronger there than what we witnessed in this unequal contest. . . . When the combat had lasted a quarter of an hour, the mules and horses appeared less affrighted. They no longer bristled up their manes, and the eye was less expressive of suffering and fear; they were no longer seen to fall backwards; and the eels, swimming with the body half out of the water, and now flying from the horses instead of attacking them, began themselves, in their turn, to approach the shore." They were then harpooned, and drawn ashore by cords attached to the little spears employed for that purpose.

The narke, a kind of skate well known in the Mediterranean, possesses similar powers. Plato compared Socrates to a narke, from that philosopher's well-known capabilities of electrifying his audiences. This fish has perfect control over its electrical powers, and sometimes absolutely declines to exert them. Badham says: "In accordance with this, we were not able, during a long sojourn at Naples, to obtain one shock in our own person, while many lazzarone friends who did not seek it had frequently their arms 'astonished' for a whole day after lugging a narke on board." The Italian fishermen believe that they can even transmit the electric current from the depths below, *viâ* the net in which they are caught, and numb the arms of those in the boat above who are hauling it in. This is pure nonsense, for the fibrous net would most assuredly be a non-conductor.

In China there is a fish which is said to go ashore and "graze," whilst the testimony in favour of the walking fish of Ceylon and India is conclusive, though that in regard to "climbing perch" is not by any means so certain. Sir Emerson Tennent told us long ago of fish that he saw travelling overland in search of water. If they were unsuccessful, they simply buried themselves in the mud or soil, and waited till next season! The travelling perch of Ceylon generally takes up its march by night, when the dews are falling, but has been met in numbers, toiling along a dusty road at midday. An official at Trincomalee described these fish, in the dry season, first crowding the little pools, then leaving them, as the water evaporated, and painfully toiling over the hard soil, where they pretty frequently fell a prey to the kites and crows. There are fish in India and Ceylon which deliberately sink into the fast drying mud and go to sleep till a change in the monsoon occurs. The natives often excavate them with a shovel or spade. The practice was long before known to some of the ancients, one of whom says, "Now we must go to fish with a hatchet instead of a hook."

That there are fish which can (apparently) fly is an old story. They *will leap* over the bulwarks, or walls of a vessel, at least fifteen feet above the water's surface, and lie quivering on the deck, though not for long, as they soon find their way to the cook's galley. They are excellent eating, much resembling the flavour of a herring, though somewhat more delicate. The fish which is generally called the flying-fish is not the only one that can make the springs or leaps which give it its name (supporting itself while in the air by the pectoral fin-rays, which are connected by membranes, forming a kind of parachute), for several species of the gurnards possess the same power. All nature seems to conspire against these poor creatures; the sharks, the dolphins, the bonitas, the gulls, frigate-birds, and albatrosses make their lives a perfect burden to them, their brilliant colouring serving to point them out to their vicious enemies. Nevertheless, the long and high flights they are able to make give them some chance of escape. Captain Basil Hall has recorded flights witnessed by him of two hundred yards in length, and others have timed them "on the wing," and proved that they could sustain themselves for at least half a minute out of the water.

VARIETIES.

THE BLIND MAN'S LANTERN.

A blind man, carrying a lamp in his hand, and a pitcher on his shoulder, was pursuing his way one night, when a hare-brained fellow met him, and said: "O, fool! day and night are to you two things alike, and darkness and light are equal to your eyes; tell me of what use this lamp can be to you?"

The blind man, smiling, said: "This lamp is not for my use; I carry it to warn all those who, like you, possess a soul blind and without understanding, not to run against me, and throw down my pitcher."

From the Persian.

LITTLE SINS.—I will account no sin little, since there is not the least but works the death of the soul. It is all one whether I be drowned near the shore or in the midst of the sea.

A GOOD NAME.

Good name, in man or woman,
Is the immediate jewel of their souls.
Who steals my purse, steals trash; 'tis something, nothing;
'Twas mine; tis his, and has been slave to thousands;
But he that filches from me my good name,
Robs me of that which not enriches him,
And makes me poor indeed.

Shakespeare.

GIVEN TO HUMANITY.—Aristotle being reproached for giving alms to a bad man, replied, "I did not give it to the man, I gave it to humanity."

THREE KINDS OF FRIENDS.—"I have three kinds of friends," says a well-known French author: "the friends whom I love; the friends about whom I am indifferent; and the friends whom I detest."

IN SILENCE.—Listen, if you would learn; be silent, if you would be safe.

Arabic Proverb.