

tion, satisfied his fears, at length recovered his composure.

When we reached our destination, I found a ship just preparing to sail for Florence, and I took my passage, leaving the captain to dispose of his cargo at his pleasure. About eight months after this, when I had almost forgotten the occurrence, I was sitting in the private parlor of a London hotel, when a letter was put into my hands from Captain S——. It stated that the writer, who was in the city, had heard of my arrival, and would esteem it a very great kindness if I would visit him at my earliest leisure; my coming would be of the utmost importance to himself and others; his servant, it added, waited to show me the way. I immediately set out to comply with the request.

Upon entering the room, I was shocked at the change which had taken place in his appearance. He was thin, pale, and haggard, with a wildness of eye that almost indicated that his reason was unsettled. He testified much joy at seeing me, and desiring me to be seated, began his communication.

"I have taken the liberty," said he, "of desiring your company at this time, because you are the only person in London to whom I can venture to make application; and I am going to lay upon you a commission, to which I am sure you will not object. The circumstances of our voyage to Marseilles will occur to your mind without my repeating them. I sold my cargo upon the most advantageous terms, and was rendered at once a rich man. The possession of wealth was new to me, and its enjoyment added, in my case, to its usual gratification, the charm of novelty. In the capital of Paris I spent many weeks of the highest pleasure, until one day, on entering a *café*, I took up a gazette, and my eyes fell upon an account of the awful burning of a British man-of-war. The announcement fell upon me like the bolt of heaven. My heart beat and my frame shivered, but I read every word of the article. The vessel which I passed the day before had seen the light from a great distance, and immediately put back to render assistance, but arrived too late to rescue more than two of the crew. They reported that a vessel passed to the north of them within half an hour's sail, but paid no regard to the repeated signals; upon the commander of that ship, the article concluded, must rest the loss of 200 persons.

"My peace of mind was gone forever. My ingenuity could devise no sophistry which suggested comfort. Wherever I went that day, I was haunted by remorse. I retired to bed, that I might forget in sleep the tortures of the day; but a terrific dream brought before my mind the whole scene of the conflagration, with the roar of the signal-guns. I awoke with horror. Thrice on the same night did I compose myself to sleep, and thrice was I awakened by the repetition of the dream. For many hours on the succeeding day my spirits were shockingly depressed, but the gay company which I frequented gradually restored me to serenity, and by night I was tol-

erably composed. But the evening again brought terror; the same vision rushed upon my mind, and racked it to agony whenever I fell into a slumber. Perceiving that if I yielded to this band of tormentors, I should quickly be maddened by suffering, I resolved to struggle with remorse, and to harden my heart against conscience. I succeeded always, when awake, in mastering the emotion, but no power on earth could shield me from the torments of sleep. Imagining at length that the prostrate position of my bed might be one cause of the vividness of my dreams, I took the resolution of sleeping upright in a chair, while my servant watched by me. But no sooner did my head drop upon my breast in incipient slumber, than the fire again tortured my brain; the booming guns again rang upon my inward ear. I sought all diversions; I wandered over Europe, seeking to relieve myself from the domination of this fancy by perpetual change of sights and succession of sounds, but in vain. Daily the horrid picture more and more enslaved my imagination, until at length, even in waking, while my eye rested on vacancy, a burning ship was painted in the air, and with my waking ears I heard the eternal guns. The horror has absorbed my being. I am separated by a circle of fire from the world; I breathe the stifling air of hell. Even now, I see nothing but the wide sea and the incessant flame upon it; I hear now the agonizing signals—boom! boom!"

The unfortunate man paused for a moment, and I never yet saw such anguish upon human face. He resumed in a few moments his account.

"This must soon end. I know I shall not survive many hours. I am dying of a raging fever, but I will have no advice or assistance. The purpose for which I have sent for you is briefly this: the whole sum of money which I gained by my ship's cargo is in the Bank of England. I shall order in my will that every cent of it shall be at your disposal. I wish you to discover the families of those who perished in this vessel; you will learn their names by inquiring at the Admiralty. Distribute to them every cent of this money. You will not deny the last request of a dying man? promise me that you will faithfully perform my wish."

I gave him the promise which he desired, and left him.

That night Captain S—— was no more.

INHABITANTS OF A DROP OF WATER.

SUBMITTING a globule of water to the magnifying glasses of a microscope, we are at once astonished by the multitude and variety of living creatures presented to our notice. What diversity of size and shape! They can only be compared to funnels and cylinders, fans and flasks, tops, bells and trumpets, globes and stars, fruits and flowers, tadpoles, fish, beetles, serpents, etc. Equally varied are their movements. Some creep and drag their slow length along; others sport and dance, or whirl and dart, with amazing rapidity, through the waters of this tiny ocean; and yet they no more interfere with

the progress one of another than do the stars in the firmament.

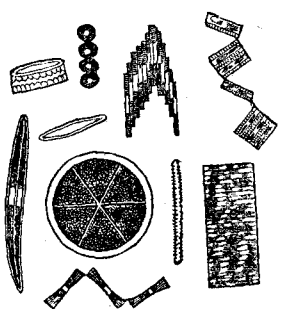


Here is a drop of stagnant water magnified six hundred times its original size. These living beings appear too close together to admit of the existence of a greater number; and yet it is considered that such

a drop contains forms of life, which—to whatever perfection microscopic power may attain—human perseverance will never accurately detect. A cubic inch of stagnant water is calculated to contain more than 800,000,000 of living, active, and organized beings.

To add to the astonishment which a contemplation of the vast number of these atoms of life excites, it is to be observed, that these creatures are endowed with a diversity of organs. In some a mouth has been discovered, in others digestive apparatus; in some an eye, and in others organs of locomotion. Nor is color wanting: they are either red, green, blue, or black; yellow, scarlet, sandy, lilac, or a mixture of these and other colors.

Some of these little animals are so nearly allied to the vegetable world, that botanists claim them as a part of their system. Indeed so gradually and imperceptibly do their confines blend, that it is at present utterly impossible to define exactly where vegetable existence ceases, and animal life begins. The annexed engraving

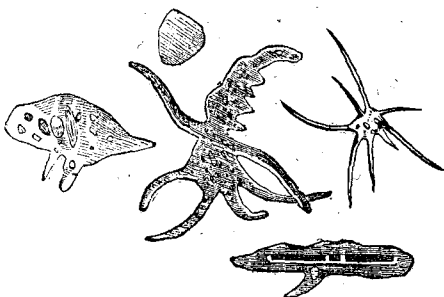


FOSSIL ANIMALCULES.

Some ad- here side by side, each successive tube protruding beyond its predecessor, somewhat resembling the pipes of an organ; others have a straight shell, three or four times longer than broad, and which viewed sideways has the appearance of a spindle (we have given a dorsal view); and others are elongated and slightly attenuated in the middle. These are called zig-zag or true stick animalcules. Inclosed in tubes of a prismatic shape, in the form of a long flat ribbon, are the fragile little wand animalcules. The round chain animalcules are four together. The rayed box animalcule has a cylindrical form; while another of the species has a cellular shape,

and is of a disc form, with six internal partitions. The little ship animalcule has the appearance of a weaver's shuttle, with two openings in the ventral surface, and two on the back; but it is undetermined to what purposes these openings are applied. Yet these creatures have been ascertained to be able to move on their own axes, and to progress in a manner that we are unable to understand, because we can not see the organs producing locomotion. How amazing to behold flinty tubes, "marching in regiments, keeping the same form, and never varying from that order of procedure in which they set out!" Surely here is sufficient to excite profound admiration of the skill of Him who knoweth neither great nor small, and lead to a devout adoration of that Power who created all things "by the word of His mouth."

An interesting fact with reference to the fossil animalcules may here be noticed. Ehrenberg states that the flinty shells of these creatures form indestructible earths, stones, and rocky masses; and adds, "With lime and soda, we may prepare glass out of invisible animalcules, use them as flints, probably prepare iron from them, and use the mountain meal, composed of them, as food in hunger." Another writer, in his "Thoughts on a Pebble," observes: "Investigation has shown that a great proportion of the mass of the (flinty) pebble is actually composed of the aggregated fossil skeletons of animalcules, so minute as to elude our unassisted vision—yet revealed to us in all their delicacy of structure on the application of the microscope." The layers of flint in chalk beds are considered to be formed of the silicious coverings of these little creatures. The edible clay of Samarang and the bread of the Finns consist in part of their shells.* Ten millions of millions of the creatures forming this earth would probably be required to fill the space of a cubic inch. The thought is overwhelming! But this is not all. The polishing slate so much in request, and the hone by which we give an edge to the razor and mechanical tools, are composed of myriads of these animalcules. Yea, every grain of dust on which we set our feet may have been a living creature!

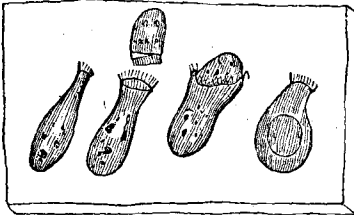


THE PROTEUS IN VARIOUS ASSUMED SHAPES

We now give attention to some of the more

* According to Dr. Carpenter, this earth contains about 80 per cent. its weight in animal matter.

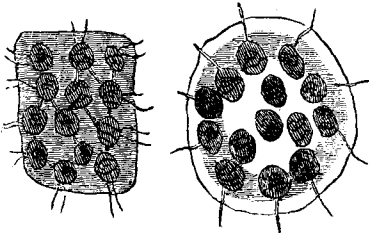
perfectly developed forms of animal life; but must, from want of space, pass over many that it would be otherwise interesting to contemplate. The *Proteus* consists of a gray-looking mass of jelly; and though its original shape may be termed globular, it is always changing, shooting out a variety of rays, forming temporary oars for locomotion, or accommodating its figure to that of the animalcule it is about to swallow. The flask animalcule is a very beautiful little creature. It resembles a Florence flask of such dimensions as to be barely visible to the naked eye. The mouth is surrounded by a number of animated hairs which move as in the *Proteus*. The engraving represents this little creature in



FLASK ANIMALCULE.

its ordinary state, preparing to swallow prey almost as large as itself, having the victim partially, and then wholly swallowed.

We have now before us a species called *Gonia*, or tablet animalcules. They have a single shell,

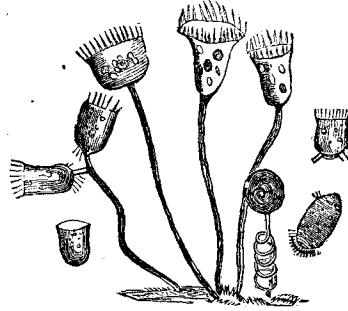


GONIA.

and, in process of self-division, develop themselves in clusters, in the form of a four-cornered tablet or plate. The breast-plate *Gonium* is of a beautifully transparent green color, and is so called, because, in clusters of sixteen bodies, it is disposed in a quadrangular form, like the jewels in the breast-plate of the Jewish high-priest. The shell of each single creature is nearly round, and resembles a mantle, which they are able to cast off, and form anew. The power which these little creatures possess, when their size is considered, is amazing. The little probosces are all in motion, and the plate may be seen moving horizontally, vertically, and then again on its edges like the rotation of a wheel.

The bell-shaped animalcules must not be lightly passed over. They are beautiful creatures, resembling living wine-glasses, barely visible to the naked eye. The body of the animalcule represents the bell of the wine-glass, which is supported by a slender stem, and attached to some foreign object. It is so sensitive as to be able to coil itself

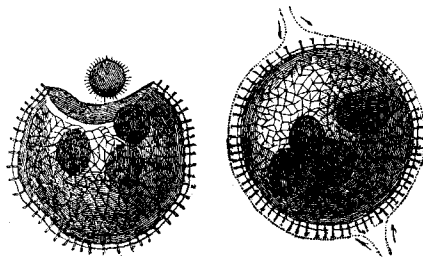
up, or become elongated at pleasure. The mouth, corresponding with the margin of the glass, is



VORTICELLA.

covered with a fringe of quivering, hair-like appendages, by means of which it obtains its food. When in quest of prey the stem is elongated, and the body of the creature turned in the direction where it is most abundant. If alarmed, it suddenly twists its stem into a spiral form, and shrinks from danger. It will be perhaps interesting to inform the reader of the manner in which this creature is propagated. The parent body is spontaneously split into two young animals, as is the case with many other animalcules. Before dividing, the body increases in breadth. A fissure then occurs, extending from the mouth to the stem. "One half sometimes becomes detached, and swims away, leaving the stem fixed to the other half, which then continues to live as it did before." Generally, however, both separate from the original stem. In the newly formed bells, hair-like organs of locomotion show themselves at the bottom of the bell. So soon, however, as the creature finds a convenient station—a stone, plant, or surface of an aquatic insect—it fixes the hinder part of its body, which it soon elongates into a new stem, and again assumes its original appearance.

One of the most beautiful inhabitants of a drop of water is the *Volvox*, or globe animalcule. "In shape it seems like a microscopic globe, turning round slowly on its own axis—a tiny world rolling



VOLVOX GLOBATOR.

majestically through the little quantity of water that forms its space, guided by some unseen and innate power." The body is a transparent spherical membrane, studded with delicate green spots, which swim about in the interior like wheels within wheels, and covered also with minute

vibrating hairs. But as soon as the growth of the internal globes is complete, the parent membrane bursts, and there issue hundreds and thousands of minute animalcules to an independent existence. Nor is this all. "If," says Professor Jones, "a small portion of the spotted film that surrounds, or rather forms, the body of the animalcule, be examined under more intense magnifying powers, every speck that dots its surface is perceived to be a perfectly formed animal—a monad; so that the envelope of the volvoes is but an assemblage of monads." Can there be any thing more astonishing? "An atom, almost imperceptible to unassisted vision, is composed of multitudes of beings, every one so complex in its structure as to be beyond the reach of our philosophy to understand!"

Here, then, we pause in our study of these minute beings. We call them minute; but before the eye of Omnipotence all such distinctions vanish. The small and the weak are regarded by him with the same benignity as the massive and the mighty. We, therefore, have the most powerful inducement to the exercise of an implicit confidence in Him, who not only caused the mountains to rise, the seas to flow, and the planets to revolve in their orbits, but has also created, with various animal functions, *points of life* far beyond the reach of our unassisted vision, and provides them with their daily food.

THE INN BY THE SEA-SIDE.

AN ALLEGORY.

BY ANNA HARRIET DRURY.

PHILALETHES dreamed a dream, and this was the purport thereof.

It was early one bright summer morning, that I found myself near a vast Ocean, on whose shore stood an ancient Inn, of considerable extent and noble architecture. Its front entrance was toward the high road: its foundations were washed by the sea. It seemed to be a place of much resort and traffic: the noise of the millstone, the trampling of horses, the voice of the pipe and viol, never ceased within its walls: the courts were full of guests, ever passing to and fro, all too busy with their own affairs to pay any regard to the inquiries of a stranger. Approaching, however, a group of men, engaged in conversation near one of the doors, I requested information touching the nature of the building, whose appearance so strongly excited my interest. The elder, who was called by his companions Gnosis, replied, with grave courtesy, "It has been built an immense time; no one can tell how long: I have carefully examined the stones, the timber, and the iron-work thereof, and I can prove its date to be of the highest antiquity. Its construction is perfect in its simplicity and proportion, and in every way adapted for the reception of the inmates."

Then I, Philalethes, asked again, "And who has built it, and who are those for whom it was erected? *Who hath laid the measures thereof, if thou knowest? or who laid the corner-stone thereof?*"

He smiled superior, as he replied, "It is said to belong to a great Proprietor, but He is never seen here, and the people who come, leave it at all hours, and make a very bad use of it. It was a fine estate once, but it is worth very little now."

Then I said, "And is it your residence now?"

"Yes," he replied, "we must stay here for a certain time like the rest: as for me, I find occupation in studying the construction of the edifice, and the depth of its foundations, and those who come after me will reap the fruits of my labors when I am gone."

"Gone whither, O courteous stranger?"

"Across the sea, that dark, unknown boundary that washes our shore. Nay," he added, with a scornful smile, "you must ask the servants of the Inn, if you will hear about that voyage, with which they would keep us in awe like silly children." And he folded his mantle round him and moved away.

"It is true," said another of the group, "we must all cross, sooner or later, so the best way is not to think of it, but enjoy the good things of the Inn while we can. The cellars are full of wine, and the storehouses of dainties; so let us eat and drink, since to-morrow we must be gone."

"And well for us that we must," added a third, whose countenance was clouded with discontent, "an ill-regulated, miserable place, where there is neither fairness, nor order, nor justice, nor honesty. If I had the management of it for an hour, I would work vast changes, so that it should not be recognized again: every thing should be on a different footing: I would build up, and throw down, and plant and destroy, till it should be a palace fit for a king, instead of a den of thieves."

Then came a grave person to me, who was a Servant of the Inn, and he said, "*Who are these that darken counsel by words without knowledge?* Come, and I will tell thee the history of the building, and of those who dwell therein."

"This INN is the property of a mighty King, who dwells beyond the Ocean; and was prepared by Him for the temporary accommodation of such of His colonists, as He designs should cross the waters, and dwell in His own Royal City. The date of the present edifice is registered in the Records; but the site was evidently occupied by buildings of different kinds—store-houses, laboratories, and such like, as it pleased the King to appoint. And even as it has been said of old, '*that the world by wisdom knew Him not*,' so is it with such as the traveler Gnosis; whose eye can discern the marvels He has wrought, but not the love that designed them."

So I followed the Servant of the King, and from him I learned the meaning of all I saw.

The travelers who came to this Inn never knew how many hours they would remain there: some were sent for before they had time to secure a lodging—some at noon—some at evening: but none remained longer than a day. The King had set up a proclamation that such would be the case, and warned them to be always ready;