

inexplicable a mystery! What shall we say of the mineral and vegetable worlds, which offers such a boundless field of investigation to the chemist and botanist? The magnet or loadstone, for instance, who can explain its powerful attraction of certain bodies, and why in the needle it constantly points to the north and south poles? Who can also account for the variation observed on the mariner's compass? Who has sufficiently unfolded the nature of the polypus plant, which some have thought the link between the animal and vegetable kingdom? What is it that makes the sensitive plant shrink back from the hand that has touched it.

But without singling out the most remarkable and curious objects, let us, in considering the most common and ordinary, explain, if we can, the mechanism, for instance, of a single plant. Let us tell how it searches and finds in the earth its own proper congenial aliment. How this aliment, like ours, is circulated through its body, made up of a stalk covered with a porous bark-like skin, through which it perspires; and filled with small tubes, like veins, through which the nutritive juices flow, like the blood in living creatures, towards all its parts, the leaves, flowers, and fruits thus feeding, supporting and maturing the whole; and how a portion of dead matter can have such an animal power in it. But who shall attempt to explain the animals themselves, the birds, fishes, insects, and all living creatures; every one of which taken singly, and each smallest part of it, is to us a mystery quite inexplicable. From the elephant down to the mite, and from the mite to the smallest animacula which we discover with the microscope. All and each of these is a wonder unaccountable, their vital principle, linked with their earthly parts, their instinct, propagation, use, form, or mechanism; in a word, every thing that regards them.

Here, indeed, is enough to humble the wisest and most learned philosophers; who, by the by, are always the first to see and acknowledge their ignorance. But at any rate it ought to shut for ever the mouths of those, whom real ignorance and a want of reflection trains to such self-sufficiency, as to wish to subject every thing to their feeble understanding; to think to scan with their puny reason the highest mysteries of religion; to sound the unfathomable depths of the knowledge, power, wisdom, goodness and justice of God, and would measure their faith in revealed truths by their own so limited intellects. As well might they think to contain in the hollow of a thimble the immense bulk of the rolling ocean.

Yet such is the presumption and ignorance, I should rather say folly and madness of our modern infidels. For why do they question the mysteries of the Christian faith? Not surely for want of sufficient authority, for I will venture to say, that nothing which they believe, if they believe any thing upon record, has such weighty authority on its side. For what weightier authority can there possibly be, than the free and uncontrolled testimony of all nations in every age to articles, which it were against their comfort

or interest in this world or in the next, to forgo or maintain. To these mysteries, which reason itself in part discovers, the most worthy and learned of mankind have in all ages assented. But by our free-thinkers, who style themselves philosophers, though least of all men they deserve that name, they are deemed absurd fables. And why? because, as I said, they cannot comprehend them.— They, who cannot explain to me the nature of a mite, the wing of a fly, the leaf of a flower, a blade of grass; they who must confess themselves a perfect mystery even to themselves, will define to me the nature of the Deity! Will tell me precisely what he is in himself, and what he is not: what he can and what he cannot do! It is truly honorable for religion to have none for her adversaries, but persons so very unreasonable and extravagant.

MICROSCOPIC PHENOMENA.

FROM SHAW'S NATURE DISPLAYED.

What we have already considered makes out a small portion of the wonders which are unfolded to us by the microscope. This instrument has introduced us to a new world of vegetables and animals, and demonstrated that there are equal order and harmony in the mite's construction, as in that of the whale or elephant. The only difference is, our weakness of sight prevents our penetrating into the nature and organization of small bodies, which often escape our eyes, and can be perceived only by the assistance of glasses, which teach us that the smallest objects wholly unknown to our forefathers, have extension, parts, and a well organized form. The mention of some examples will lead us to acknowledge the power, wisdom and goodness of that Deity who affords unto all existence and happiness.

Grains of sand appear of the same form to the naked eye, but seen through a microscope exhibit different shapes and sizes, globular, square, conical, and mostly irregular: and what is more surprising, in their cavities have been found by the microscope, insects of various kinds. In decayed cheese are multitudes of little worms, called mites, which, to the naked eye, appear like shapeless and confused moving particles, but the microscope prove them of a very singular and curious figure. They have eyes, mouth, feet, and a transparent body, furnished with long hair in the form of prickles.

The mouldy substance on damp bodies exhibits a region of minute plants. Sometimes it appears a forest of trees, whose branches, leaves, flowers, and fruits, are clearly distinguished. Some of the flowers have long, white, transparent stalks, and the buds, before they open, are little green balls which become white. The particles of dust on the wings of the butterfly, prove, by the microscope, to be beautiful and well arranged little feathers.

In down of over variegated dye,  
Shines, fluttering soft, the gaily butterfly;  
That powder, which thy spoiling hand disdains,  
The form of quill and painted plumage contains.  
Not courts do more magnificence express,  
In all their blaze of dress and pomp of dress.

BROWN.

By the same instruments the surface of our skin has scales resembling those of fish; but so minute, that a single grain would cover 250, and a single scale covers 500 pores, whence issues the insensible perspiration necessary to health; consequently, a single grain of sand can cover 125,000 pores of the human body.

The microscope displays, in each object, a thousand others which escaped recognition, in each of which others remain unseen, which even the microscope can never bring to view. What wonders should we see, could we continually improve those glasses invented to assist our sight! Imagination may, in some measure, supply the defect of our eyes, and serve as a mental microscope, to represent, in each atom, thousands of now and invisible worlds.

In contemplating the works of God, the effects of his wisdom and goodness are as evidently displayed in the spider's web, as in those laws which connect the sun and his circumrevolving planets. The microscope discovers, in miniature, new worlds, which ought to excite man's wonder, and urge him to religious reverence. Persons deprived of opportunity to examine the curious objects displayed by the microscope, will be glad to know what has been seen by others, and what themselves may contemplate with delight.

The mosses and grass with which the earth is covered, as with a carpet, are composed of many threads and small particles, into which they are divisible. The particles of water are so small, that millions of animalcules may be suspended on the point of a needle; how many, then, must there be in the rivers and seas!— From a lighted candle there issue, in one minute, more particles of light than there are grains of sand in the whole earth; how vast, then, the number that flow in a day, or a year, or a century, from that immense body, the sun! How indefinitely small must those odoriferous bodies be, which affect large spaces for days and even weeks, without any sensible loss of their weight!

Let us pass to the animated creation. In a summer's evening the air swarms with living creatures. Each drop of stagnant water contains a little world of animated beings. Each leaf of a tree is a colony of insects; every plant, every flower, affords food for millions of creatures. Who but must have seen the innumerable swarms of flies, gnats, and other insects collected in the compass of a few yards! What prodigious shoals must there be over the whole earth—in the immense expanse of the atmosphere! How many millions of smaller insects and worms crawl on the ground, or live beneath its surface!

The artificial convex will reveal  
The forms diminutive that each conceal;  
Some so minute, that, to the one extreme,  
The mite a vast Leviathan would seem;  
That yet of organs, functions, sense partake,  
Equal with animals of larger make—  
In curious limbs and clothing they surpass  
By far the comeliest of the bulky mass;  
A world of beauties! that, through all their frame,  
Creation's grandest miracle proclaim.

BROWN.

Did not experiments and observations

by the microscope prove the fact, it would be incredible that there are animals a million times smaller than a grain of sand; yet endowed with organs of nutrition, motion, &c. There are shell-fish so small, that even through a microscope, they appear scarcely larger than a grain of wheat, and these are living animals enclosed in hard houses. How inconceivably fine are the spider's threads! as thousands would scarcely be as thick as common sewing silk. How small is the mite! and yet this almost imperceptible atom, seen through a microscope is a hairy animal, perfect in its limbs, active in its motions, of a regular form, full of life and sensibility, and provided with all requisite organs. Though scarcely visible to us, it is made up of parts infinitely smaller than the whole. How minute, then, must be the particles of those fluids which circulate through the veins of such animalcules!

**POWDERED MILK.**—Kirchoff, a Russian chemist, who discovered the process of converting starch into sugar, has recently made, it is said, several experiments on milk, by which it appears that that fluid may be preserved for an indefinite time. Fresh milk is slowly evaporated by gentle heat, till it is reduced to dry powder which is to be kept perfectly dry in a bottle, well stopped for use. When required it need only be diluted with a sufficient quantity of water; the mixture will then have all the taste and properties of new milk.

INFORMATION WANTED,

OF ROBERT GOURLAY, a native of St. Andrews, Scotland, who left that country about ten years ago, and is now supposed to be in some part of the United States. Should this meet his eye, he will hear of something to his advantage by writing to his brother, at home—who is most anxious to hear from him. His father and mother have both died since he left his native land. When last heard from he was teaching school in Dalton County, Ohio. Any information respecting him, addressed to JOHN CREIGHTON, Chronicle & Gazette Office, Kingston, will be thankfully received.  
Kingston, Dec. 24, 1841.

A GIRL WANTED

IMMEDIATELY, to do the work of a small family. Enquire at this office.  
Hamilton, Jan. 5, 1842.

ROYAL EXCHANGE,  
KING STREET,

HAMILTON—CANADA,  
BY NELSON DEVEREUX.

THE Subscriber having completed his new Brick Building, in King Street, (on the site of his old stand) respectfully informs the Public that it is now open for their accommodation, and solicits a continuance of the generous patronage he has heretofore received, and for which he returns his most grateful thanks.  
N. DEVEREUX.

Dec. 24, 1841.

REMOVED  
IN HASTE!!

THE Subscriber having got under way in his old business wishes to notify his customers that his present abode is next door to Mr. Thom's Saddlery Establishment, and directly opposite Press' Hotel. He also takes this opportunity of returning thanks to his fellow townsmen for their assistance rendered to him during the night of the calamitous fire.

SAMUEL McCURDY.

N B Those indebted to him will confer a favor by settling up speedily.  
Hamilton, Dec 1, 1841.