

# THE WEEKLY MIRROR.

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## NATURAL HISTORY.

### THE SQUIRREL.

Natural History, (by which we mean an account of the different productions of nature, whether they belong to the animal, the vegetable, or the mineral kingdom,) is a very pleasant, as well as useful study: we intend, therefore, continuing to give in every number of our little paper, a short piece under this head.

The squirrel is about the size of a small rabbit, with shorter ears, and a beautiful bushy tail, which spreads like a fan, and, when thrown up, covers the whole body.—It is a very beautiful and gentle little animal.

Its food consists of fruits, nuts, and acorns; and it is cleanly, active, and industrious,—just as all boys, and girls, and men, and women, should be.

It lives chiefly on trees, and jumps with surprising activity from one branch to another.

It does not, however, waste all its time in jumping and skipping, and sitting in pretty attitudes; but it is a very prudent and thoughtful animal, and it takes care to collect a supply of provisions in the autumn, which it lays by against the time of winter, when it can find no food.

It builds its nest in trees, just where the large branches begin to fork off into small ones: this nest is built with moss, and twigs, and dry leaves: these the clever little animal binds together with great art, so as to make a safe shelter against the weather. It leaves only a small opening at the top; and even this it secures by a sort of covering, or umbrella, pointed something like a sugar loaf, which keeps off all the rain from the nest.—Here the animal finds a shelter for itself and its young from the storms of winter, and from the hot rays of the sun in summer. See how this little animal teaches us forethought and contrivance, and good management! and there is scarcely an animal in the world that would not,—if we were but wise enough to see to it.

In Lapland, and the large forests towards the north, the squirrels are observed to change their habitation, and to remove, in vast numbers, from one country to another. Sometimes, thousands of them are seen together travelling directly forward, whilst neither rocks, forests, nor other hindrances can stop them:—a good lesson for us all to be diligent and persevering and not to be easily frightened by difficulties.

When the squirrels meet with broad rivers, or extensive lakes, they take a very extraordinary method of crossing them. Upon approaching the banks, and perceiving the breadth of the water, they return, as if by common consent, into the neighbouring for-

est, each in search of a piece of bark, which answers all the purposes of boats for wafting them over. When the whole company is ready, they boldly commit their little fleet to the waves; every squirrel sitting on his own piece of bark, and fanning the air with its tail to drive the vessel to its desired port. In this manner they sometimes cross lakes several miles broad; but it sometimes happens that a sudden gust of wind oversets the whole navy, and there is a wreck of two or three thousand sail. On such occasions, the Laplanders gather up the dead bodies, as they are thrown on shore, eat the flesh, and sell the skins for above a shilling a dozen.

## ASTRONOMY.

There are other bodies in the Solar System, besides those we have already described, called *Comets*. They generally appear like Stars, with long tails, or trains of light. They sometimes come very near the Sun, and sometimes remove from him to a greater distance than Saturn. No branch of Astronomy is so imperfect as that which relates to comets. These illustrious strangers, although they attract more curiosity and attention than the regular luminaries of Heaven, generally remain so short a time visible to us, are so unequal in their movements, and so eccentric in their courses, that it is difficult accurately to determine their orbits, their periods, or their nature.

ECLIPSES—Every Planet and Moon is enlightened by the Sun, and casts a shadow towards that point of the Heavens which is opposite the Sun. We will just mention a simple thing to give you an idea of this—You have observed when you have been walking on a fine sunny day, that you have seen your own shadow cast upon the ground opposite to the Sun; and that if the Sun shone to the South of you, your shadow would appear North of you. A shadow is nothing but an absence of light in the space hid from the Sun by the dark body which comes between his rays. An Eclipse of the Sun is produced by the Earth coming in contact with the shadow of the Moon; therefore when the Sun is eclipsed, we see the dark body of the Moon before the Sun. The Sun is much larger than the Moon; but the Moon being so very near the Earth, appears about the same size as the Sun; if this were not the case, we could never have any very large Eclipses of the Sun.

The 5th chapter of Matthew probably contains more sound philosophy than any other writing in any language of the same amount.

## COMMON THINGS.

### NO. 9.—AIR.

By referring back to the simple elements of nature, as mentioned in previous numbers, a person may readily understand the different kinds of air or gas which exist in nature or are formed by art. For although they are numerous, and represented by long and odd words, the elements which compose them are few, and easily understood and remembered.

The atmosphere, which is perhaps more commonly termed air than any other substance, is composed essentially, as has more than once been mentioned, of oxygen and nitrogen; though carbonic acid, hydrogen; carburetted hydrogen, and many other airs or gases, are either constantly or occasionally combined with those two.

Besides this view of the chemical ingredients of the atmosphere, its mechanical properties are of a most interesting character. Among the mechanical properties of the atmosphere or common air, its weight perhaps is the most striking and most important. The whole weight of atmosphere upon the earth, is about equal to a quantity of water sufficient to cover the whole of the earth's surface to the depth of thirty feet. And by considering the earth a globe of 8,000 miles in diameter, it is easy to calculate how many cubic feet or hogsheads of water would be equal in weight to the atmosphere upon its surface.

The weight of the atmosphere, like the weight of every other kind of matter, arises from the attraction of the earth upon it. By the weight of air, together with its penetrating nature, it finds its way into almost every other substance. Water contains it in large quantities, except for which fishes could not live in water. All vegetable substances, even the most solid oak, contain much of it. It is diffused through all animal matter. It is mixed with our blood, and circulates in our veins. It undoubtedly finds its way far into the depths of the earth, perhaps to its centre. It is hence evident that common air, besides covering the surface of the earth to the height of forty-five miles or more, is diffused through most other substances in the animal, vegetable and mineral kingdoms.

Common air not only spreads itself over the earth's surface, and penetrates to its centre, but it is constantly performing an infinite variety of operations, important to the happiness, and essential to the existence of every living acting being. It is constantly upon the march, from the equator to the poles, and from the poles to the equator.