

ed before being removed, may possibly throw light upon the verses of Scripture in which it is said—2 Chronicles, II. 18.—and he (Solomon) set three-score and ten thousand of them to be bearers of burdens, and fourscore thousand to be hewers in the mountains, and three thousand and six hundred overseers to get the people a work.' And again—1 Kings, VI. 7.—'And the house when it was in building, was built of stone made ready before it was brought thither; so that there was neither hammer nor ax nor any tool of iron heard in the house, while it was in building.'

'In one of the quarries there was a spring of water. A recess in the rock and a shallow trough had been cut for its reception. The water was soft and clear but somewhat unpleasant to the taste. The expenditure of our candles hastened our departure. We got out and in unobserved. I had not another opportunity of visiting these quarries; but left Jerusalem in hopes that some one more enterprising and more able would explore and give a more detailed and accurate account of these excavations which to me seemed so abounding in interest.'

From Sharpe's Magazine.

FLIES IN AMBER.

STRANGE mysteries appear to surround this curious natural production. It long stood between the three kingdoms of nature, like the Egyptian sphynx, an unsolved enigma: hence amber attracted the attention alike of the poet and of the philosopher, and it became the basis of more than one romantic story. Eventually, by subjecting amber to a peculiar kind of optical analysis, the enigma was solved; and, by its action on polarized light, it was determined most certainly to be a vegetable resin.

A fine transparent piece of amber appears as though it were a thing of yesterday—the gathered tears of some oriental gum tree, full of sunlight; yet it is old—it may be older than the hills. The flies in amber tell us thus much—there they are:

'We know the thing is neither rich nor rare,
But wonder how'

they have become entangled in the now stony resin. It must have been distilled from the branches of trees, and hanging thereon like honey dews, have enticed, and afterwards entangled them in its viscous mass. Severe has been the struggle, in many cases, by the poor prisoners; they have sought to regain their liberty, and sacrificed their limbs in the effort. It is no unusual thing to find flies of all sizes, and even sturdy beetles, who have been caught in the slimy juice, with their legs and wings torn off and scattered round them; yet was the struggle in vain, they remained entombed, mummified with more than Egyptian art, as beautiful and as delicate as they were in life; dismembered thing, preserved to tell the story of a very ancient existence.

The forms are numerous, the varieties of flies in amber are very various; yet there is scarcely one of them which is identical with any living creature. The entomology of the amber mines informs us that they were the winged denizens of the air, and the creeping things of the earth, at a time when a tropical climate extended as far north as the Baltic Sea. That indeed they lived in ancient forests, far back in geological time, when south-eastern England had not yet risen from the ocean, and when, probably, a line of cliffs, extending from Weymouth to Scarborough, were still beaten by the waves of a wide spread sea. Of these imprisoned specimens a curious history is yet to be written; but it is with other flies in amber that we have now to deal—with mysteries more occult than these, and principles which appear to have a world-wide application in each varied form of development.

The study of the psychological phenomena of the Grecian mind brings us acquainted with some beautiful manifestations of that exaltation of human intellect which advances beyond ordinary reason, and assumes many of the characteristics of inspiration.

In the writings of the philosophers of Greece and in their poetical mythology, we find numerous examples of the overshadowing of philosophic truths, which inductive science has since rendered familiar to the world. It would appear, that by careful culture of the powers of the mind, the lovers of wisdom became enabled to think our great truths, which are now developed to us by the mechanical process of experiment.

The Greek mythical creations display the resistless powers of supreme intellect in developing life, and order, and beauty, out of the chaos which belongs alike to every theogony. They are all sublime outshadings of the spiritual nature which was seen to exist behind ordinary nature. They show, as through a veil, the workings of those subtle agencies by which the great phenomena of creation are produced. The philosophers taught the people to believe that everything in nature was under the guidance of an especial spirituality; and thus were created those 'spirits of air, and earth, and sea,' which were the presiding powers of the organic and of the inorganic worlds. Even where observation led to the discovery of a fact it was clothed in this spiritual vesture, and it became to the Greeks a divinity. Thus, a fine old Grecian, Thales of Miletus, who was proba-

bly examining the flies in amber, discovered that when this substance was rubbed, it acquired the power of attracting light bodies, and he interpreted this truth, by supposing amber to possess a spirit, which, being irritated, left its transparent prison, and gathering up all floating bodies near, flew back with them again. Electron was the Greek name for amber, and electricity was the epithet by which Thales and his disciples distinguished the spirit they had learned to raise. We have lost the history, if one ever existed, of the progress made of tracking out this wonderful spirit in its devious workings and wanderings; we only know that for nearly two thousand years this fact remained barren of all results, and that the mystery in amber was regarded as one of the unknown things which are dreamt of in our philosophy.

Eventually, an English dreamer, a pensioner in the Charterhouse, called Stephen Gray, in 1720, informed the world that something of the mystery of electricity he had solved; and he showed that the same spirit which dwelt in amber was also found in glass, hair, silk, and feathers. Twenty years passed, and some ingenious men at Leyden thought they could devise a plan for eliminating this spirit of the amber, and of collecting and retaining it when once developed, a large glass globe was fixed on an axis, and turned rapidly; a gun barrel suspended by silken strings, was hung near it, a wire fastened to the gun-barrel, dropping into a glass of water at the other end. The glass globe was excited, as old Thales excited his amber, by friction with the hands; and the person holding the glass of water, upon applying his fingers to obtain the spark from the barrel, received a shock, which convinced the terrified experimenters that the spirit was a giant in its wrath. The most exaggerated statements were published in all the large cities of Europe. The glass globe and Leyden vial, as it was called, was exhibited in Paris and London, and crowds of spectators flocked to witness the discharge, and to feel the 'fearful shock.' The spirit of the amber was now fairly developed, and its powers were examined by experiment, guided by the new ideas. Men no longer used thought as the only element in the discovery of knowledge; they had begun to employ their senses and to cultivate habits of observation.

At length, a great single minded man, who had made his home

'In lands which echo further west

Than the Greek's island of the blest,'

seeing through some of the mystery which enveloped this subtle spirit in amber, resolved on determining by an experiment, beautiful in its simplicity and grand in its danger, the relation which it bore to the awful spirit of the thunder-storm.

The sculptor has idealized the noble form of the impious Ajax defying the lightning: how much more dignified would be a statue of the philosopher compelling the thunder of the heavens to speak aloud its secrets. Benjamin Franklin stood forth among men in the boldness of his views, and he saw, in the attractive principles of electron, a power of universal diffusion, and he resolved to examine for himself. He had previously made himself acquainted with the laws by which electricity appear to be guided, and availing himself of this knowledge Franklin devised his grand experiment.

He mounted a kite into the air, insulated its string, which served as a conductor and waited to see the result. For some time he waited in vain, the eye-catcher received no answer to his call, the spirit refused to obey his summons—But when man calls on nature in the purity of his soul, and solicits earnestly a development of natural truths, nature rarely fails to vouchsafe a reply.

Franklin stood watching his arrangement; presently every fibre of his kite-string was seen to stand on end, and, on applying a pointer to the ball to which it was attached, he was saluted with a discharge of electric fire of precisely the same character as that which had been previously developed from resin and from glass. Here we had a modern Prometheus, indeed, stealing fire from heaven. Thus it was proved that lightning was only a grand manifestation of the same phenomena which had first excited the attention of Thales of Miletus. The danger incurred by the illustrious Franklin was soon fatally proved by the death of a continental philosopher, who repeated his experiment. Professor Rickmann had reared high in air an electrical conductor, and connected it with some experiment arrangements in his study. Proceeding without sufficient caution, the discharge from a passing thunder cloud flowed through the conductor, and penetrating the body of the philosopher, destroyed his life.

Further researches in the same direction confirmed the great result of Benjamin Franklin, and proved that the earth and the air were equally under the influence of this all-prevailing element. It was shown that no body existed in nature through which this subtle principle was not diffused, that changes were constantly being produced by the interference of other physical powers, and that in the effort made to restore equilibrium we had the manifestations of electrical phenomena.

During all the stages of animal and vegetable growth, electricity is neither absorbed or given off, and no change can take place in the

form of matter without its effecting a corresponding change in its electrical relations.—Thus water is converted into vapor and it takes from the earth some of its electricity. This ascends into air and floats as clouds; accumulating in this way its quantity of electrical power. Circumstances may arise through which the electricity is quietly returned back to the earth or such as may determine a concentration of the electrical element in the atmosphere. It floats on, dark and lowering, with its stored artillery until becoming overcharged, it bursts forth in fury, and too frequently performs the work of devastation.

A hill, a tall tree, a pointed spire, becomes the object of heaven's wrath, and it is torn and splintered by the violence of the disruptive discharge from the cloud. We have learnt something of this, and we are profiting by our knowledge. The electricity does not—it cannot—pass by the solid matter of the object upon which it falls; consequently, it endeavours to find its way into the earth by the interstitial spaces between the particles of the solid matter. These channels being sufficient to convey it, they are split and rendered in all directions. There are certain bodies which, by their peculiar molecular constitution, have the property of allowing this fluid to pass through it very freely; and if we place such a mass of matter as is sufficient to convey all the electricity of a thunder-cloud to the earth, it will pass along it harmlessly. Hence we raise a little above the highest point of a building a rod of copper, and continue it to the lowest point, connecting it with the moist earth. In our ships we carry a band of the same metal from the topmast to the copper sheeting beneath the water, and thus all is rendered secure.

There has been a popular error that lightning conductors may become lightning attractors. There are no such things as attractors of electricity; it strikes a tall tree or church spire, because some objects offer the easiest road for it to return to the earth and restore the electric equilibrium. The lightning copper conductor bears precisely the same relation to the atmospheric electricity, that the pipes which we place from the roofs of our houses, and continue to the earth, do to the rain which falls from a condensing cloud. Neither the rain nor the electricity seek the channels, but they are provided, and through these they flow.

By a good system of lightning conductors, any extent of country might be protected from thunder-storms; indeed, science proves that it is within the power of man to establish such channels of communication between the solid earth and the ambient air, as to maintain a constant balance in the electrical conditions of both, and thus prevent the development of the thunder-storm.

The vineyards of the south of France formerly suffered severely from devastating hail-storms, produced by the sudden congelation of the water of the rain cloud 'by its being robbed of its latent heat through a sudden electric discharge. Experience has taught the vine growers that, by raising lightning conductors over their gardens, they quietly discharge the surplus electricity in the air, prevent the congelation of the water, and consequently remove the cause of injury. The paragrilles, as they are called are the safeguards to the vine grower, and where they are plentifully distributed, severe hail-storms are now rarely known.

Thus it is that, by investigating some of the most and minute apparently unimportant phenomena, we arrive at great truths. The attractive power of amber, first observed by Thales, has led to the solution of the mystery of the thunder storm; has instructed us how to disarm it of its terrors; and there are yet other points of interest, to which we shall return, showing the advantages which man has derived from studying the flies in amber.

ALL SORTS OF MINDS.

THERE is a strong disposition in men of opposite minds to despise each other. A grave man cannot conceive what is the use of wit in society. A person who takes a strong common sense view of the subject is for pushing out by the head and shoulders an ingenious theorist, who catches at the slightest and faintest analogies; and another man, who scents the ridiculous from afar, will hold no commerce with him who feels exquisitely the fine feeling of the heart, and is alive to nothing else; whereas, talent is talent, and mind is mind, in all its branches. Wit gives to life one of its best flavours; common sense leads to immediate action, and gives to society its daily motion; large and comprehensive views cause its annual rotation; ridicule chastises folly and impudence, and keeps men in their proper sphere; subtlety sates hold of the fine threads of truth; analogy darts away in the most sublime discoveries; feeling paints all the exquisite passion of man's soul, and rewards him by a thousand inward visitations for the sorrows that come from without. God made it all! It is all good! We must despise no sort of talent; they have all their separate duties and uses—all the happiness of man for their object; they all improve exalt and gladden him.

NEW ORLEANS.

THE city of New Orleans is a striking example of American progress. Its population has quadrupled within 40 years, having now reached a total of 120,660. This number, though not large for an English town, is considered remarkable for the United States, where the inhabitants are more distributed over the surface of the country than is the case with Great Britain. As the emporium of the important State of Louisiana, and occupying a commanding position on the Mississippi, New Orleans has long been remarked as the leading city of the Southern States. It is situated at a distance of 900 miles from New York, and 1,200 from Washington. Like most of the old American cities, it was originally built in the form of a parallelogram, 1,300 yards long and 700 across. These limits, however, soon proved unequal to the growth of the community. Above and below the prior boundaries five suburbs arose, and, almost contiguous, many villages were planted, which are gradually growing towards New Orleans, as New Orleans grows towards them. No parts of the world exceed in fertility the valleys that branch in all directions, Eastwards and Westwards. A canal also, nearly five miles long, which cost a million of dollars, connects it with a great lake in the neighbourhood, and other canals, as well as several railways, lead to the various river ports and towns. The noble Mississippi itself, opposite New Orleans is a mile and a half wide, and from 100 to 160 feet deep, continuing at this depth nearly to its entrance into the ocean, where several bars have been formed by the oscillating tides. From this it will be easily understood that our largest line-of-battle ships could float securely on the 'exulting and abounding river,' the pride of the Western continent. The city itself lies from six to nine feet above the high water level: but occasional inundations have happened, to protect themselves against which the inhabitants have raised an embankment of earth, faced with masonry, and called the levee. This forms a fine esplanade, from 20 to 40 feet in width, except in front of the Municipal Hall, where it is upwards of 500 feet wide. There may be seen mountains of cotton bales, from the upper country, of casks, boxes and every variety of merchandise. From this point of New Orleans extends before the eye a magnificent panoramic display of enterprise and prosperity. The harbour, broad and deep, is covered with flat boats, keel boats, sloops, schooners, brigs and steamers, and the shipping congregated in it represents an export trade to the amount of more than twelve million dollars, being larger than that of any other American city, excepting, perhaps, New York. The city, itself, however, has not a purely American aspect, being like Havannah, composed, for the most part, of stuccoed buildings, painted white or yellow, in the French and Spanish styles. In the basement of the stories, usually about six feet high, all the cellars are placed, none being constructed under ground. The extent of New Orleans may be imagined when we state that it contains 66 complete squares each, with a frontage 319 feet in length. Few of the streets, however, exceed 40 feet in width, the climate being hot enough to render shade essential. What is wanted is grandeur, which is, nevertheless, made up in the picturesque grouping of the orchards, with their clusters of orange, lemon and magnolia trees.

ENGLISH RULE IN AFGHANISTAN.

WHAT I heard and saw in Afghanistan gave me the profound conviction that the moment the British flag is seen in an Asiatic state the shameless Government in force under the native ruler is replaced, if not by abundance, certainly by security and justice. However burdensome the taxation of the English may be, it is always far less so than that extorted by native princes, who add persecution to rapacity. I have naturally adopted these opinions from hearing the Afghans, so hostile to the English, sigh for the loss of their administrative system. The Sirdars, Mollas, Syuds, and soldiers, classes who live by plundering the industrious portion of the inhabitants, were always declaiming against the English, because under them they could not practice their iniquities. The people were irritated it is true, because their prejudices had been shocked, and rose to shake off their yoke; but now they regret them; and I have twenty times heard Afghans speak in terms of just appreciation of what they had done for their good.—Ferrier's Wandering in Persia, &c.

HUMAN LIFE.

THE last number of Blackwood quotes a French author by the name of M. Flourens, who thus parcels out the life of man. "The first ten years of life are infancy, properly so called; the second ten is the period of boyhood: from twenty to thirty is the first youth; from thirty to forty the second. The first manhood is from forty to fifty-five; the second from fifty-five to seventy. From seventy to eighty-five is the first period of old age, and at eighty-five the second age begins." This article farther says that all the larger animals live about five times longer than they grow. Man grows twenty years, and ought to live 90 or 100 years, and would with a proper observance of the laws of physical nature