

ADVANTAGES OF STUDYING THE NATURAL SCIENCES.

The superiority of the natural sciences over all other objects of study, to engage the attention, and awaken the interest of pupils, is conceded as a fact of experience by the ablest teachers. This cannot be otherwise; for the infinite wisdom of the Creator is nowhere so perfectly displayed as in the wonderful adaptation which exists between the young unperverted mind and the natural world with which it is encompassed.

On one hand there is the realm of nature, endless in the variety of its objects, indescribable in its beauty, immutable in its order, boundless in its beneficence, and ever admirable in the simplicity and harmony of its laws; on the other there is a young intellect whose earliest trait is curiosity, which asks numberless questions, pries into the reason of things, and seeks to find out their causes as if by the spontaneous promptings of instinct. The study of nature is therefore the most congenial employment of the opening mind, and one of its purest sources of pleasure. Every fact that is learned becomes a key to others; every progressive step discloses wonders previously unimagined. The more we acquire, the greater is our desire to learn, while each advance multiplies the sources of delight instead of exhausting them.

But the advantages of studying the natural sciences are by no means confined to the interest or enthusiasm which they are capable of exerting. They are also eminently fitted to train the mind to habits of careful observation; to teach it discrimination in deciding upon evidence, caution in forming opinions, method in study; to discipline it to patient and persevering effort, and store it with valuable knowledge;—and yet, in our current systems of instruction, how frequently is the mind cut off from the glorious works of Almighty power, and directed to the crude and imperfect performances of man! how often does the bright volume of the Creator, “written,” to use the impressive words of Lord Bacon, “in the only language which hath gone forth to the ends of the world unaffected by the confusions of Babel,” remain a sealed book, while the youthful mind is inflated with fictitious learning, or occupied in acquiring the least valuable kinds of information! It is not to be forgotten, that so long as men neglected the study of nature, despised experiment, resorted to fanciful theories for the explanations of all natural occurrences, and wasted their energies in aimless and sterile speculations, society remained in a condition of barbarism, and learning was only an empty boast—a something of which the great mass of mankind knew absolutely nothing, and which was of little service to those who possessed it. But when at length men became the students of nature, when they began to appreciate the significance of her facts and to search for them with earnestness, then came the knowledge which put stagnant society in motion, which conferred power upon the masses to elevate and improve their condition. Then came the discovery of the New World, of the art of printing, of the telescope,

the microscope, the steam-engine, the chronometer, the power-loom, the steamboat, the locomotive, the electric telegraph, the daguerreotype, and ten thousand other inventions in all the departments of human activity,—and which constitute but the beginning of what yet remains to be done. The benign results which thus flow from the study of the natural sciences, are in an eminent degree characteristic of Chemistry. Its principles are of universal import, of the utmost breadth of practical application, and are involved in all the vicissitudes of being which we daily contemplate around us. And in acquainting ourselves with them, we may not only gain a deeper and clearer insight into the wonders of existence, but we shall likewise obtain the most striking proofs of the wisdom of the Great Maker of the Universe.—*Youman's Chemistry.*

THE WONDERFUL PROVISION OF NATURE.—Although eels notwithstanding their voracity, are not, perhaps, very destructive to salmon in their active state, their habits are such, that they would exterminate the species, were it not for a very wonderful provision of nature, which as we do not remember ever to have seen it dwelt upon or alluded to, it may be worthwhile to notice it passing. The history of their spawning is the converse of that of the salmon's, for whilst the latter is oviparous, and produces in fresh water, the former is viviparous, and produces in the sea; and it so happens that when the salmon is hurrying up towards the very sources, of rivers on the same errand of generation, the eel is hurrying on the same errand to the depths of the ocean. Were the eel to remain in the river after the salmon roe is deposited and covered in its voracity and habit of boring in loose gravel, and even under large stones, would disturb the beds, and lead to the annihilation of the whole salmon tribe. But at this critical time the two creatures are driven by the same instinct, towards different poles; and before the eel re-appears in fresh water, the salmon roe has undergone a series of changes, emerged from its subaqueous dormitory, and becomes a little fish, fragile indeed, and tiny, but in the highest degree vigilant and nimble, not capable of confronting a single one of its numerous enemies in the open field, yet disconcerting and defying them all by the celerity of its flight. Is this an evidence of design, or is it a stroke of chance?—*Thoughts on the present scarcity of Salmon;* by the Rev. Dugald S. Williamson, Minister of Tongland.

GIGANTIC EGGS.—The committee of management of the Jardin des Plantes de Paris have just presented to the Hunterian Museum, of the Royal College of Surgeons, the casts of eggs of the gigantic wingless bird of Madagascar (*Epyornis maximus* of Geoffroy de St. Hilaire). These enormous eggs are equal in size to 12 ostrich, 16 casowary, 148 domestic hen's or 50,000 humming bird's eggs.

TUN HOUSES.—A patent has been granted to Mr. George Tate for the construction of houses and other buildings by fitting together staves, or other pieces of timber, secured together by hoops or binders, and fixed by any suitable method practised by builders, either vertically or horizontally, at any height, upon piles, sleepers or frames, securely fastened in the ground; the joints of the pieces or staves, when necessary being bevelled as required, and wrought either plain or rounded, and hollowed or dove-tailed, or tongued and grooved, or glued up or caulked, or merely drawn