

are in every Catholic library, and which we trust will not be allowed to remain idle on the book-shelf, but be carefully studied until its principles are firmly grasped by all who take an interest in either sacred or modern history.

INSECTIVOROUS PLANTS.

THE name of Mr. Darwin is so commonly associated with the origin of species and the descent of man that many of our readers will find it difficult to believe that a volume of his, consisting of 492 pages, contains nothing on these subjects, nor has any reference to them except that very collateral sentence which, from his point of view, every student on natural history must have. The theory of natural selection is never alluded to in these pages so as to make the descent of man from an inferior type probable, nor is the preservation of favoured races in the struggle for life brought prominently before our attention. The book corresponds practically to its title, and concerns a fly, and refers to about six hundred, perhaps of the natural and vegetable kingdoms—a group of humble kind, where the two meet—where the fins and tentacles of the sea become the feet, not of other and larger animals, but of plants which are harassed by insects with every convenience for grasping, devouring, shooting, and annihilating their prey. The work is certainly an odd piece in England, but the author who could have produced this book, in the retirement of his residence in a solitary mountainously island in a remote part of Europe, among some German naturalists. Whatever may be the judgment of students respecting the origin of species as propounded by Darwin there can be no doubt that he will ever be regarded as one of the most successful students of nature, having a rare faculty of observation, and having brought together an enormous multitude of instances. He has touched the most important sources of materials of every kind and degree by his works on Geology, Corals, Coral Reefs, Volcanoes, and Climbing Plants, not to speak of those works of wide-wide celebrity which have made him the admiration of many, and the scorn and derision of many more. His volume on the various contrivances by which insects are benefited by insects was somewhat similar in the process to its material and treatment, but on that point we, and Darwin's reputation rising, his writings have in them an unusual wealth of facts and observations that charm and excite every student of nature who reads them. Dr. Hutton, in an address delivered before the British Association in Berlin last year, called attention to carnivorous plants, and dwelt particularly on *Pinguicula lusitana* (as Professor Jan Gray has done in the *Monitor*) on the power of true digestion possessed by *Drosera* and *Dionaea*. Dr. Sturdee also has given the bibliography of *Dionaea*, but we are here moved into the subject so fully and ably by Mr. Darwin. Fifteen years ago he was surprised by finding how large a number of insects were caught by the leaves of the common sea-lily (*Drosera rotundifolia*) on a beach in Jersey. This led him to further investigations, and the work before us is the result. The leaves and tentacles of the sea-lily are first described and the manner in which insects are captured by them. The proof is then given of their plants having the power of absorption; and the blending of animal and vegetable life in the assimilation which follows leads us to reflect how easily, if such were the Creator's will, the animal, vegetable, and mineral kingdoms (as we call them) that are seen, might give birth to another kingdom equally varied and diverse.

After recapitulating the observations on *Drosera rotundifolia*, which occupy half the volume, the author goes on to describe the *Drosera longifolia* and other plants, which also capture and devour insects. It should be remembered—and this is the lesson to be derived from the work—that while ordinary plants of the higher classes possess the requisite inorganic elements from the soil by means of their roots, and absorb carbonic acid from the atmosphere by means of their stems and leaves, there is a class of plants which digest and subsequently absorb animal matter. These are of the *Droseraceae*, *Pinguiculae*, and *Dioneeae*, and we can only remark that other species will almost certainly have to be added to this class. These plants can dissolve matter out of pollen, seeds, bits of leaves, and other vegetable substances. Their plants absorb also the salts of ammonia brought by the soil. Some other plants can absorb ammonia by their glandular hairs. Again there is a second class of plants which cannot digest, but absorb the products of the decay of the animals which they capture, and these are the *Carnivora* and its near allies. It is probable that *Sarcostemma* and *Chlorophytum* should be added to this class. There is again a third class of plants which feed, as is now generally admitted, on the products of the decay of vegetable matter, both on the land and outside. In the last place, there is a well-known fourth class of parasites, such as the mistletoe, which are nourished by the juices of living plants. Most of the plants, however, belonging to these four classes, obtain part of their carbon, the ordinary species, from the atmosphere. It would be superfluous to recommend this book to botanists and naturalists in general. It is already a standard work in its

see in every Catholic library, and which we trust will not be allowed to remain idly on the book-shelf, but be carefully studied until its principles are firmly grasped by all who take an interest in either ancient or modern history.

INSECTIVOROUS PLANTS.

(2.) THE name of Mr. Darwin is so constantly associated with the origin of species and the descent of man that many of our readers will find it difficult to believe that a volume of his, consisting of 450 pages, contains nothing on these subjects, nor has any reference to them except that very collateral reference which, from his point of view, every treatise on natural history must have. The theory of natural selection is never enforced in these pages so as to make the descent of man from an inferior type probable, nor is the preservation of favoured races in the struggle for life brought prominently before our attention. The book corresponds precisely to its title, and concerns a tiny, and hitherto almost unnoticed, portion of the animal and vegetable kingdoms—a scrap of borderland where the two meet—where the flies and insects of the one become the food, not of other and larger animals, but of plants which are furnished by nature with every convenience for grasping, devouring, absorbing, and assimilating their prey. There is certainly no other person in England but the author who could have produced this book, for the minuteness of its researches into matters microscopically small is without parallel except among some German naturalists. Whatever may be the judgment of posterity respecting the origin of species as propounded by Darwin there can be no doubt that he will ever be regarded as one of the most successful students of nature, having a rare faculty of observation, and having brought together an enormous multitude of inductions. He has rendered the most important services to naturalists of every kind and degree by his works on Geology, Orchids, Coral Reefs, Volcanoes, and Climbing Plants, not to speak of those works of world-wide celebrity which have made him the admiration of many, and the scorn and derision of many more. This volume on the various contrivances by which orchids are fertilized by insects was somewhat similar to the present in its material and treatment, but as time goes on, and Darwin's experience ripens, his writings have in them an increased wealth of facts and observations that charms and enriches every student of nature who reads them. Dr. Hooker, in an address delivered before the British Association in Belfast last year, called attention to carnivorous plants, and dwelt particularly (as Professor Asa Gray has done in the *Nation*) on the power of true digestion possessed by *Drosera* and *Dionæa*. Dr. Nitschke also has given the bibliography of *Drosera*, but no one has entered into the subject so fully and ably as Mr. Darwin. Fifteen years ago he was surprised by finding how large a number of insects were caught by the leaves of the common sun-dew (*Drosera rotundifolia*) on a heath in Sussex. This led him to further investigation, and the work before us is the result. The leaves and tentacles of the sun-dew are first described and the manner in which insects are captured by them. The proof is then given of their glands having the power of absorption; and the blending of animal and vegetable life in the assimilation which follows leads us to reflect how easily, if such were the Creator's will, the animal, vegetable, and mineral kingdoms (as we call them) that now exist might give birth to another kingdom equally varied and distinct.

After recapitulating the observations on *Drosera Rotundifolia*, which occupy half the volume, the author goes on to describe the *Dionæa Muscipula* and other plants, which also capture and absorb insects. It should be remembered—and this is the lesson to be derived from the work—that while ordinary plants of the higher classes procure the requisite inorganic elements from the soil by means of their roots, and absorb carbonic acid from the atmosphere by means of their stems and leaves, there is a class of plants which digest and subsequently absorb animal matter. These are all the *Droseraceæ*, *Pinguicula*, and *Nepenthes*, nor can it be doubted that other species will almost certainly have to be added to this class. These plants can dissolve matter out of pollen, seeds, bits of leaves, and other vegetable substances. Their glands absorb also the salts of ammonia brought by the rain. Some other plants can absorb ammonia by their glandular hairs. Again there is a second class of plants which cannot digest, but absorb the products of the decay of the animals which they capture, and these are the *Utricularia* and its close allies. It is probable that *Sarracenia* and *Darlingtonia* should be added to this class. There is again a third class of plants which feed, as is now generally admitted, on the products of the decay of vegetable matter, such as the bird's nest orchids. In the last place, there is a well-known fourth class of parasites, such as the mistletoe, which are nourished by the juices of living plants. Most of the plants, however, belonging to these four classes, obtain part of their carbon, like ordinary species, from the atmosphere. It would be superfluous to recommend this book to botanists and naturalists in general. It is already a standard work in its own department.

A HISTORY OF CARICATURE AND GROTESQUE, IN LITERATURE AND ART.

(3.) IT is always a drawback to caricature and grotesque that there is a temptation to exaggerate the evil and to leave almost wholly unnoticed the good. We have examples

of this truism in the present work. Highly amusing, and sometimes clever, as are the comic illustrations, there is an admixture of the profane with the harmless. The author would perhaps decline to be responsible for this; since he merely accumulates the "grotesque" at his command, and does not attempt to winnow the bad from the good. Moreover, the history of "grotesque" is necessarily largely mixed with the history of what is called the Reformation; and this will be an apology in itself. The writer observes in his Preface:—

The satirical literature of the Reformation and pictorial caricature had their cradle in Germany, and in the earlier half of the sixteenth century carried their influence largely into France and England; but from that time any influence of German literature on these two countries ceases. Modern satirical literature had its models in France during the sixteenth century, and the direct influence of this literature in France upon English literature continued during that and the succeeding century, but no further. Political caricature rose to importance in France in the sixteenth century, and was transplanted to Holland in the seventeenth century; and until the beginning of the eighteenth century England owed its caricature, indirectly or directly, to the French and the Dutch; but after that time a purely English school of caricature was formed, which was entirely independent of Continental caricaturists.

It must be conceded that present English caricature is for the most part free from profanity, and also from that grossness and personality which made earlier caricature so reprehensible. Playfulness, not spite, is now the spirit of caricature; and in this respect we have made a great advance. Some very interesting information will be found in Mr. Wright's volume on the origin and growth of caricature. He has indeed done his subject full justice, and studied it from beginning to end. There is not the mere borrowing from many books of the same kind—indeed no book of this kind has before appeared—but the careful tracing of the origin and development of the whole habit and popularity of the "grotesque." With regard to the word "caricature," its origin is Italian, derived from the verb *caricare*, to load; and it therefore means a picture which is loaded, that is, exaggerated or burlesqued (the old French writers say, "*c'est la même chose que charge en peinture*"). To quote Mr. Wright:—

The word appears not to have come into use in Italy until the latter half of the 17th century, and the earliest instance I know of its employment by an English writer is that quoted by Johnson from the *Christian Morals*, by Sir Thomas Brown, who died in 1682; but it was one of his latest writings, and was not printed till long after his death: "Expose not thyself by four-footed manners unto monstrous draughts (*i.e.*, drawings) and *caricatura* representations." . . . We find it next employed by the writer of the Essay No. 537 of the *Spectator*, who, speaking of the way in which different people were led by feelings of jealousy and prejudice to detract from the characters of others, goes on to say: "From all these hands we have such draughts of mankind as are represented in those burlesque pictures which the Italians call *caricaturas*, where the art consists in preserving, amidst distorted proportions and aggravated features, some distinguishing likeness of the person, but in such a manner as to transform the most agreeable beauty into the most odious monster."

This is a true description of modern caricature, but certainly not of mediæval; for all idea of resemblance was lost sight of in the desire to represent what was one thing as another. However, caricature has immensely improved, in point of taste as well as of art; and Mr. Wright's book must make us thankful that we have done with a mere "grotesque" which had little meaning beyond prejudice or hate. For a careful examination of the whole subject of which it treats we can safely recommend the volume; and it is only to be regretted that a Catholic spirit does not pervade both the text and the amusing illustrations.

COMPULSORY EDUCATION IN BELGIUM.

(4.) M^{ONSIGNOR} DE HAERNE, who is Rector of the English College at Bruges as well as a member of the Belgian House of Commons, has reprinted in the form of a pamphlet an article opposing the introduction of compulsory education into Belgium, and written by him in the *Catholic Review* of Louvain. It will be found to throw considerable light on a question debated in these columns—the benefits or disadvantages of compulsion in primary education, and the differences between the German and the English systems. He shows that at first the German compulsion worked well, but that a great change has occurred in accordance with a law which he observes to prevail in all countries that enforce attendance at school by penalties inflicted on the parents. Mgr. de Haerne shows that in Belgium, where compulsion has not as yet been resorted to, elementary schools are at the present time more successful than at Berlin. He says that, in order to get a clear idea of the state of primary education in Prussia from the published statistics, we must distinguish between three categories of children: (1) Those of age and health to attend school, *schulfähige*; (2) those liable to attendance *schulspflichtige*; and (3) those actually in attendance, *schulbesuchende*. Now the number of these last, which alone affords any criterion of the state of elementary education, is most unsatisfactory. At Berlin, in fact, the state of things described is deplorable. The author cites a few figures to show this. In a district of the city containing a population of 632,749 there ought to have been, in 1874, 128,760 children at school; whereas the actual number, even of the *schulspflichtige*, or those bound to attend school, is only 84,319; and of these but 71,395 are on the register of any schools, public or private. Taken proportionally to the population only 11.27 per cent. are actually