A CATHOLIC ANSWER TO DARWINISM

A DISCREDITED THEORY

(Concluded from our last issue.)

Another Unanswerable Argument

to Natural Selection, which was admitted by Darwin himself to be the most obvious and gravest objection to his theory, is the evidence of fossil remains. If it be true that one plant has been evolved from another, and animals evolved from plants and from one another, then during the process of evolution there must have been millions of transitional or intermediate forms, or what are called 'missing links,' millions of half a plant and half an animal, and half one animal and half another. Now, as a matter of fact, no such missing links have ever been found in geological records. Darwin tried to explain this by saying that our geological records are very imperfect. There is, however, no getting away from the fact that there have been discovered fossil remains of birds, fishes, reptiles, and insects, and all these fossil forms entirely agree with our present classification of animals, with its wide gaps separating one group from another without any missing links or intermediate forms. But these and other arguments that could be urged against natural selection are now rendered unnecessary by the brilliant and epoch-making work of Abbe Mendel, which compels Darwinians to seek for a new theory to account for the variety and beauty of the universe.

It is a common cry of the enemies of the Church, and a cry as false as it is absurd, that priests are opposed to scientific research, for they desire to keep their people in darkness and ignorance so as to be better able to dominate their minds and twist them into whatever direction they think fit. An equally false opinion is that the mind of a priest is so saturated with tradition and authority that it is unfitted to think and reason and experiment for itself. What are the facts? Far from the Catholic Church being the enemy of science, almost all the great discoveries in natural and physical science are the work of her devout and illustrious sons, for in the words of De Maistre, 'the sceptre of science belongs to Christian Europe.' It was to a Dominican Friar, Albertus Magnus, and a Franciscan Friar, Roger Bacon, that we are indebted for the inductive method of research which is the foundation of modern science and has yielded such brilliant results. It was they who first broke away from the tradition of Aristotle and the Alexandrian school, and first pointed out that the true way to search out the secrets of nature was by observation and experiment. It was a humble Polish priest, Copernicus, who laid the foundation of astronomy by making the sun, and not the earth, the centre of the solar system. It was a Benedictine monk, Basil Valentine, who was the first to use qualitative analysis in chemical research, and who laid the foundation of modern chemistry. It was an English priest-physician, Linacre, who founded the Royal College of Physicians of England, and for his eminence in scholarship and scientific intellect had the greatest European reputation of his day. It was Stensen, a Danish priest (who became a Bishop), that laid the basis of modern geology, and was one of the greatest anatomists of his time, being known to every medical student of the present day as the discoverer of Stensen's duct; and it was a French priest, Abbe Haiiz, who founded the modern science of crystallography. Many other examples could be cited to conclusively prove that the sacred calling of the priesthood is compatible with the highest scientific attainment. I shall, however, content myself with a consideration of the brilliant and

Epoch-making Work of Abbe Mendel,

the importance of which is being daily recognised throughout the scientific world. Gregor Johann Mendel was born in 1822 in Austria. He became an Augustinian Friar, and showing a special aptitude for the study of biological problems, he was allowed, after his ordination, to pursue his studies in the University of Vienna. The experiments on which he founded his famous laws of heredity occupied him sixteen years, and were made in the garden of the monastery at Brunn, of which he ultimately became Abbot. To show how truly scientific he was and how carefully he guarded himself against error, his biographer, Professor Walsh, tells us that his experiments were founded on the minute examination of no less than 10,000 plants. The whole scheme of experimentation was so planned that for the first time in the history of studies of heredity no extraneous and inexplicable data were allowed to enter the problem. Mendel did not waste his energies on theorising or speculating what things might be, but like his illustrious Catholic fellow-scientists, Roger Bacon and Louis Pasteur, he went direct to nature herself and searched out her secrets by observation and experiment. Time and the technicality of his work forbid me to go into details. It will suffice to state that by systematic cross fertilisation of plants on a large scale he was able to determine with scientific exactitude how the plant evolved its color, its shape and form, how it became smooth or wrinkled, the color of the seed coat, the size of the pod, the distribution of the flowers along the stem, and all its other characteristics. From his experiments he was able to deduce certain laws, and the substance of these laws is that plants, and by implication animals, do not change in their structure and organs on account of any external conditions such as the struggle for existence, or climate, or environment, but the changes that occur are due to the inherent qualities of the parent cells from which they are descended, from the egg-cell and the pollen-cell, or what are called the 'germinal particles.' The importance of Mendel's laws will be evident by the following quotations from leading biologists:—Professor Morgan, whose recent work on 'Regeneration' has gained him a world-wide reputation as a scientific biologist, states that 'the recent demonstrations of the mathematical truth of Mendel's laws absolutely confirm Mendel's original observations and give the final *coup de grâce* to the theory of natural selection. We are now in a position to answer the oft-heard but unscientific query of those who must cling to some dogma: If you reject Darwin, what better have you to offer?' Professor Wilson, a distinguished zoologist, states that 'studies in cytology (that is in the observations on the formation, development, and maturation of cells) confirm Mendel's principles of inheritance and furnish another proof of the truth of these principles.' Professor Castle, of Harvard University, states that 'what will doubtless rank as one of the greatest discoveries in the study of biology, and in the study of heredity, perhaps the greatest, was made by Gregor Mendel forty years ago. The Darwinian theory then occupied the centre of the scientific stage, and Mendel's brilliant discovery was all but unnoticed for a third of a century. Meanwhile, the discussion aroused by Weissman's germ plasma theory, in particular the idea of the noninheritance of acquired characters, put the scientific public into a more receptive frame of mind, so Mendel's law was rediscovered by De Vries, Correns, and Tschermak in 1900, and now attracts the attention of every scientific biologist.' Professor Bailey, the editor of an authoritative 'Encyclopedia of Horticulture,' says that Mendel's teaching strikes at the root of difficult and vital problems, and presents a new conception of the proximate mechanism of heredity. It challenges old ideas and opinions, emphasises the great importance of actual experiments for the solution of many questions of Evolution, and forces the necessity for giving greater attention to the real characters and attributes of plants and animals, and to those vague groups that we are in the habit of calling species.' Professor Bateson, whose book on Mendel's 'Principles of Heredity' is the standard work on the subject in the English language, says that the Mendelian principles enable us to deal in a comprehensive manner with phenomena of a fundamental nature, lying at the very root of all conceptions, not merely of the physiology of reproduction and heredity, but even of the essential nature of living organisms. I venture to say that Mendel's experiments are worthy to rank with those that laid the foundation of the atomic laws of chemistry.' Finally, Mendel's biographer, Professor Walsh, says that 'the history of Mendel's work, its thoroughly simple yet satisfactory character, its basis in manifold observations of problems simplified to the last degree, and its present general acceptance by scientific workers all over the world, clearly illustrate that there have been too much theorising and too little observation and experiment in the premature acceptance by biologists of the theory of natural selection. The present generation should be warned

Not to Surrender Their Judgment to Theories,

No matter how fascinating they may seem, but to wait in patience for the facts of the case, working, not theorising, while they wait.' From these quotations it will be evident that Mendel's researches have dealt the final deathblow to the Darwinian theory of natural selection. One more thought and I am done.

The discovery by Mendel of his laws in heredity, like the discovery of radium, emphasises once more that there is no finality in science, for what is orthodox science to-day may be heterodox science to-morrow on account of some fresh discovery. This has always seemed to me to be the basis of the misconception in some minds that there is an antagonism between science and religion. These minds do not seem to grasp the fact that a true religion must be final in what it teaches, for