

Science Siftings

By 'VOLT.'

REMARKABLE DISCOVERIES.

Only twelve years of the twentieth century have gone, and yet in those twelve years have been crowded scientific achievements which are rapidly revolutionising the world's commerce. In some cases the discoveries and inventions date back to the closing years of the last century, but it is since 1900 that they have been developed and so perfected that to-day scores of great industries are benefited to the extent of millions of pounds. The dyeing business, for instance, has been completely changed by reason of the fact that processes have during recent years been discovered for extracting artificial dyes, pigments, and perfumes from coal-tar products, while the jewellery trade has been revolutionised through methods being discovered for the manufacture of synthetic pearls, rubies, and allied gems. Then, again, the silk industry has been considerably affected by the discovery of a process for transforming vegetable fibre into an artificial silk, in some respects outrivalling the natural, 15,000,000lb now being annually put on the market. Agriculture, too, has received a considerable fillip on account of numerous fertilisers which chemists have discovered, and which have proved invaluable aids to nature.

Nobel Prize-Winners.

The records of the Nobel prize-winners perhaps provide the most striking illustration of the great advantages the world has derived from the achievements of present-day scientists and inventors. Alfred Nobel died in 1896, and left part of his great fortune to constitute a fund the interest on which was to be awarded annually in prizes to those persons who conferred the greatest benefit on mankind during the year. There are five prizes altogether, each worth about £8000, which are awarded for the most important discoveries or improvements in physics, chemistry, or medicine, distinguished work in literature, and the best effort towards the promotion of peace. The first prizes were awarded in 1901, and with a few notable exceptions the recipients have been workers in pure science, whose discoveries include the X-ray, radium, five new gases in the atmosphere, a method for exactly measuring a light wave to the millionth part of an inch, and the proof that carbon can be transformed into diamond in the electric arc. The wireless telegraph, the development of anti-toxin, the Finsen ray treatment for cancer, and other scientific discoveries are also included in the work of the Nobel prize-winners.

The Panama Canal.

The fact, perhaps, is not generally recognised that the successful building of the Panama Canal is in a great measure due to the discoveries of present-day physicians and chemists, for the building of the canal has been as much conditioned on the medical as on the scientific side. The French failed utterly in their attempt to build the canal because the majority of their workers died of infectious diseases that no one knew how to combat. To-day these diseases are under control, mainly owing to the discoveries of medical men, and even within the past six years the amount of sickness in the Panama zone has been decreased by 75 per cent., which has made it possible for vast armies of men to work under conditions of health and life.

The Aeroplane and Wireless Telegraphy.

Of course, one of the greatest discoveries of the present century is the flying-machine, and when one considers that to-day the Great Powers are as much concerned with the organisation and equipment of an aerial fleet as they are with that of their army and navy, it is astonishing to learn that it is only nine years ago since the Wright Brothers evolved an aeroplane from the gliding machine; and among the world's scientific benefactors, of course, one must not forget to mention Signor Marconi, who in 1899 established wireless communication between France and England, and who twelve months later transmitted messages across the Atlantic, a distance of 2100 miles, by means of his wonderful invention.

CONVERSION OF ANGLICAN BENEDICTINES

The following announcement was made on Tuesday, February 25, from the Anglican Benedictine Abbey of Caldey Island:—'For more than a year the Anglican Benedictines of Caldey Island have been in communication with the Archbishop of Canterbury and the Bishop of Oxford with a view to electing the latter as episcopal visitor to the community, and the correspondence has now come to an end because the community cannot conscientiously submit to the conditions which the Bishop found it necessary to impose before consenting to accept the office of visitor.

These conditions, if acceded to, would practically imply for the community a denial of their faith and practice, which they have held and taught for the last fifteen years. Under the circumstances the community feel they can no longer remain in the Church of England, when by doing so they would be untrue to what they believe to be vital principles. They have decided, therefore, to ask to be received into the Roman Church, and will seek admission to the Benedictine Order.'

It is understood (adds the *London Times*) that all except young members of the community have decided to submit to the Roman Church. About thirty monks remain. The nuns of St. Bride's, Milford Haven, formerly of Malling Abbey, Kent, have also decided, with two exceptions, to enter the Roman Church.

From references to the Caldey community which have appeared in our columns (says the *Catholic Times*) our readers will be aware that its establishment, like that of the community founded by the late Father Ignatius, of Llanthony, was an attempt to conduct a religious Order on Catholic lines in the Church of England. Indeed, after the death of Father Ignatius, it was a continuation of his experiment. The Abbot, Mr. Carlyle, a man of ability and strong character, hoped to familiarise Anglicans with Benedictine traditions, and, strange to say, though of course St. Benedict was a most loyal son of the Holy See, thought it was possible to observe the spirit of his rule, whilst refusing to accept the authority of the Pope. According to the *Churchman's Year Book*, the community came into existence in 1895. Mr. Carlyle was clothed as a novice in 1896, and, with the sanction of Dr. Temple, then Archbishop of Canterbury, made his profession as an Anglican Benedictine monk in 1898. The community first went to Caldey, off the Pembroke-shire coast, in 1901, and in the following year moved to Painsthorpe, Yorkshire. While the brothers were at Painsthorpe, the Archbishop of York approved of the election of Dom Aelred Carlyle as Abbot, and allowed him to be ordained in America. The community returned to Caldey as a permanent home in 1906, when, it was stated, they bought the island. In 1907 the community of Anglican Benedictine nuns at Malling, which has since removed to St. Bride's Abbey, Milford Haven, was affiliated to the congregation. In 1910 the community at Caldey entered upon the use of a new and beautiful chapel, and the Chapter House and other portions of the temporary monastery have since been completed. Besides attending to their spiritual affairs, the members of the community occupied themselves with various crafts, such as vestment-making and gardening.

For many centuries from the fifth onward the island was monastic property. A Celtic monastery under St. Illtud's Abbacy trained there many saints, including St. David, Patron of Wales, St. Gildas, the historian, St. Paul de Leon, St. Samson of Dol, St. Malo, and St. Briec; in fact Caldey has been called 'The Island of Saints.' From the twelfth to the sixteenth century it belonged to the Benedictines, and a contributor to the *Catholic Fireside*, referring to the old priory church, wrote in 1909:—'Would that money could have secured it for the service of the old Faith and the Perpetual Sacrifice for which it was destined by the good monks.' Possibly, owing to the change that is taking place, the building may belong once more to Catholics in communion with the Holy See.

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