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CHARLES DARWIN.

Charles Robert Darwin, whose influence upon the current of modern thought has been surpassed by no other scientific investigator, died at his residence near Orpington, England, Wednesday, April 19.

Mr. Darwin was born at Shrewsbury, England, February 12, 1809, inheriting rare qualities for scientific observation and philosophic thought. His father was a worthy though not eminent member of the Royal Society, and his grandfather was the celebrated Erasmus Darwin, author of "The Botanic Garden." His maternal grandfather was the founder of the famous pottery works at Etruria, Josiah Wedgwood, also a member of the Royal Society. His early education was received at the public school in Shrewsbury, whence he passed to the University of Edinburgh, where he spent two years. He then went to Christ's College, Cambridge, where he was graduated in 1831. His bent for natural research was not diverted by his schooling; and soon after his graduation he read a paper on marine zoology, giving such promise of scientific ability that he was offered the position of naturalist on the now historic Beagle, soon to start on a cruise of scientific exploration round the world. Five years were spent on this cruise, during which those suggestive observations were made which led to the development of a new theory of the origin of species.

Returning from this voyage in 1836 Darwin made ready for publication his "Journal of Researches," and in 1840-42 he edited the "Zoology of the Voyage of the Beagle." Shortly after he published his classic works on "The Structure and Distribution of Coral Reefs." These works were rapidly followed by "Geological Observations on Volcanic Islands," in 1844, and "Geological Observations in South America," in 1846. Meantime his contributions to scientific publications and the transactions of scientific societies were numerous and valuable, as they were throughout his long and active life. The two-volume "Monograph of the Family Cirripedia," was published in 1851 and 1853, and soon after his two volumes on the fossil species of the same family. In 1853 the Royal Society awarded him the royal medal, and in 1859 he received the Wollaston medal of the Geological. His epoch marking "Origin of Species by Natural Selection," appeared the same year. The controversies provoked by this work probably did more to attract popular thought to questions of natural science, and to change the popular as well as scientific mode of regarding such topics, than any other influence of the century.

The later works of Mr. Darwin bear evidence of his untiring industry in collecting facts and his marvelous faculty for the rational interpretation of such facts. The work on the "Fertilization of Orchids by the Agency of Insects" appeared in 1862; "Habit and Movements of Climbing Plants" in 1865; "The Variation of Plants and Animals under Domestication" in 1867; "The Descent of Man, and Selection in Relation to Sex" in 1871; "The Expression of Emotions in Man and Animal" in 1875; "Insectivorous Plants" in 1876; "The Effects of Cross and Self Fertilization in the Vegetable Kingdom" in 1877; "The Different Forms of Flowers and Plants of the Same Species" in 1880; and "The Formation of Vegetable Mould through the Action of Worms" in 1881.

This enormous volume of work has been accomplished by untiring industry, in spite of frequent illnesses which to most men would have been accounted sufficient cause for idleness. Personally Mr. Darwin was greatly loved by his social and scientific acquaintances, and his home life was the happiest. He leaves five sons and two daughters, all of superior ability and high characters.

His most eminent characteristic, however, has been an unswerving loyalty to truth as obtained by exact observation and unprejudiced judgment, regardless of ridicule or misrepresentation. It is this, more than the revolution he has so largely helped to bring about in modern thought, or the admirable quality of the scientific work done by him, that makes his life one of the precious legacies of the nineteenth century.

THE LOSS OF THE ARCTIC SEARCH STEAMER RODGERS.

The Arctic search steamer Rodgers, which was so successful last summer in the exploration of Herald Island and Wrangell Island, has met with disaster at St. Lawrence Bay Northern Siberia, whither she had gone for winter quarters. The Rodgers arrived in St. Lawrence Bay October 15, and was burned January 1, 1882. Intelligence of the loss was first received April 18, through Mr. Jackson, Herald correspondent, with the party in search of the lost crew of the Jeannette, who met, on the 6th, a courier from Mr. W. H. Gilder, of the Rodgers, who had reached Verkhoyansk, about four hundred miles north of Yakutsk. Mr. Gilder had been sent on by Lieutenant Berry to announce the loss of his vessel and to appeal for help for the officers and crew, thirty-six in number, who were awaiting supplies at Tiapka, in Eastern Siberia, near Cape Serdze, some two thousand miles from Yakutsk.

From the meager details so far given, it appears that endeavors to save the ship were made in vain. She lay within a short distance of the shore, but the young ice could not bear the weight of the men, and a line from the ship to the shore was fixed with much difficulty. By this line and the boats the crew were all safely landed. The entire ship's company are in good health and spirits. There is no danger of their starving. Governor Tcherniaeff has given orders to the Chukche chiefs to do all in their power to

assist the shipwrecked crew. Three months' provisions were saved from the ship. Tupkan is near Cape Serdze Kamen.

Society of Mechanical Engineers.

The annual convention of the American Society of Mechanical Engineers began in Philadelphia, April 19, Prof. R. H. Thurston, of the Stevens Institute, in the chair. The roll of membership now contains three hundred and twenty-five names. The first paper was read by W. R. Eckert, mining engineer, Comstock Mines, on "The Chronograph for Engineering Purposes, with the Hipp Escapement." The next was by Prof. Thurston on "The General Efficiency of the Steam Engine."

The afternoon was devoted to eulogies of the late Alexander H. Holley. An oration was delivered by James C. Bayles, after which speeches were made by Professor Thurston, Coleman Sellers, of Philadelphia; Eckley B. Cox, of Luzerne County, Pa.; J. C. Hoadley, of Boston; R. W. Hunt, of Troy; William Metcalf, of Pittsburg; Charles T. Porter, of Philadelphia; J. T. Holloway, of Cleveland; L. B. Moore and W. E. Partridge, of New York city.

The Glossograph.

A speech recorder called a glossograph has been invented by A. Gentilli, of Vienna. It is described as a combination of delicate levers and blades, which, being placed upon the tongue and lips and under the nostrils of a speaker, are vibrated by the movements of the former and the breath flowing from the latter. This vibration is transmitted to pencils. These transcribe the several signs produced by the action of the tongue and lips and the breath from the nostrils upon a strip of paper moved by a mechanical arrangement, and thus a special system of writing, which may be termed glossography, is produced. This is based upon the principle of syllable construction and combination of consonants.

Hansom Cabs.

The first extensive introduction and use of Hansom cabs in this country is to take place in Philadelphia, Pa., in a short time, by the Pennsylvania Railroad Company. The cabs are to be constructed in the best manner after the English pattern, and a contract for thirty has been given to the enterprising Connecticut firm of carriage builders, Messrs. Hincks & Johnson. The Pennsylvania Railroad Company intend by means of these cabs to transport passengers from their new depot to various parts of the city at a very low price.

The experiment will be watched with interest, and, if successful, will probably lead to the extensive introduction of these cabs in other cities.

Dry Separation of Gold from Sand.

A novel apparatus for separating gold from sand without the use of water was recently completed and tested in this city. It is intended for use in the placer regions of the West, Mexico, and Central America, where gold-bearing sand is found at a distance from water sufficient for hydraulic mining. The machine is about five feet in diameter, and is arranged to throw the sand by centrifugal force against a "wall" of mercury, maintained in position by centrifugal action. In this way, it is claimed, every particle of gold is brought in contact with the mercury and amalgamated, while the sand is blown away by means of an air blast. The machine is said to clean a ton of sand in twenty minutes, and to be so thorough in its operation as to make it possible to work over with profit the tailings of mines worked by other systems. The power required to operate the machine is not given.

Melting Point of Fats.

The method adopted by the "Society for the Mineral Oil Industry," in Halle a. S. is to be preferred for the safest and most accurate results above all other methods. Instead of determining the melting point they use the solidifying point as a basis for their results. The following method is recommended as giving accurate results for the direct determination of the melting point: A cylinder having thin walls is heated in a beaker containing water or oil. In the cylinder there is a thermometer whose bulb is only partly dipped into the fat. The temperature is determined at the moment when the fat begins to become transparent.—J. Merz, in Chemiker Zeitung.

Relative Safety of Anæsthetics.

Dr. Ormsby, of the Meath Hospital, Dublin, has compiled the following table of the absolute and the relative mortality caused by the use of the leading anæsthetics. The table is based mainly on statistics gathered by Dr. Andrews of Chicago, and Dr. Richardson, of London:

Agent employed.	Deaths.	Admins.	Deaths.	Admins.
Ether.....	4 in	92,815,	or 1 in	23,204
Chloroform.....	53 in	152,260,	or 1 in	2,873
Mixture of chloroform with ether.....	2 in	11,177,	or 1 in	5,588
Bichloride of mythy lene.....	2 in	10,000,	or 1 in	5,000

Restoring Worn Coins.

Recently while Dr. A. H. Best, of Savannah, Ga., was silver-plating a small article with silver cyanide solution, he used an old Spanish silver coin as anode. The coin was worn perfectly smooth and had been hammered to twice its original size; yet in a little while after it was put in the bath every letter and figure became plainly visible. The date, 1800, though defaced so as to be beyond deciphering with a powerful glass, became plain.