The day of the discovery was August 29, 1831. On that day Faraday, as his diary shows, working in his laboratory at the Royal Institution, wound two coils of wire on to opposite sides of a soft iron ring, connected one coil to a battery and the other to a galvanometer, and at the "make" and "break" of the battery circuit observed the deflections of the galvanometer connected in the other circuit. From this simple experiment and the variations made in it by Faraday in subsequent trials has grown in the past one hundred years the science of electrical engineering. The Royal Institution, in a preliminary announcement of the proposed celebrations, says: "No other experiment in physical science has been more fruitful in benefit for mankind. August 29, 1931, is, then, the centenary of one of the great events in the history of the world."

The Royal Institution and the Institution of Electrical Engineers have joined forces in making plans for the celebrations, and a number of other societies and organizations are cooperating. The Royal Society will entertain the delegates; the British Association has arranged the dates for its centenary meeting in London, also in 1931, to coincide with the Faraday celebrations; the Federal Council for Chemistry will participate in the arrangement of a Faraday Exhibition, for Faraday's chemical researches—his isolation of benzene and his establishment of the laws of electro-chemistry—are hardly less remarkable than his purely electrical discoveries, and government, university and scientific interests have joined in offering their assistance to make the celebrations worthy of the occasion.

The provisional program includes a Faraday Commemorative Meeting at the Queen's Hall on Monday, September 21, 1931, at which addresses will be given on Faraday's work. On Tuesday the summer meeting of the Institution of Electrical Engineers, with joint conference of allied associations, will be held; on Wednesday morning there will be the opening of the Faraday Exhibition to the public at the Albert Hall, and in the evening the opening meeting of the British Association will be held at the Central Hall, Westminster.

Faraday kept a careful diary, in his own hand, of all his experimental work, which was bequeathed to the Royal Institution and for over sixty years has been its most treasured possession. The Royal Institution has resolved to publish the diary in full. It is intended to have two or more of the six or eight volumes in which the work will ultimately be completed ready by September, 1931. It will be issued by Messrs. G. Bell and Sons, Limited, York House, Portugal-street, W.C.2.

EXPLORATIONS IN AFRICA

A WIRELESS to the New York *Times* dated from London states that data and relics of the African explorations of David Livingstone and Sir Henry Stanley have been found by Colonel Charles Wellington Furlong, an American explorer, artist, author and lecturer, who arrived in London on August 13 *en route* to the United States following a seven months' expedition into the heart of Africa.

While the chief purposes of the expedition, which covered 7,000 miles in Kenya, Tanganyika, Uganda, the Belgian Congo and the West Nile Provinces, were an ethnological study of African tribes and big game hunting as well as a study of political, economic and social conditions, Colonel Furlong was desirous of finding whatever traces remained in Africa of Livingstone and Stanley.

In a Belgian Congo village he found Chief Godoy, a son of Chief Matibu, the most important native associate of Sir Henry Stanley, from whom he learned many facts of considerable interest about Stanley and the others of his expedition and about Chief Matibu himself. Chief Godoy had carefully preserved many of his father's relics, including his favorite spearhead, carried when he was with Stanley, a remarkable letter of appreciation written to Chief Matibu by Lady Stanley in 1911, an elaborate gold headdress which she sent therewith and a bracelet given to Chief Matibu by Sir Henry. All these things Colonel Furlong bought from Chief Godoy.

"Precious as they were to him," said Colonel Furlong, "I was able to convince him that in some museum they would better preserve for posterity the record of Chief Matibu's association with Stanley, whereas in the jungles they could easily be lost. He sold them on the condition that I return to him framed photographs of Lady Stanley's letter and other relics to be hung on the walls of his hut where all the natives could admire them."

In South Mombasa Colonel Furlong located a native about ninety years of age who is the only surviving member of Livingstone's expedition. He was one of five who went into the interior with Livingstone when he died and bore on his shoulders the explorer's mummified body from the jungles of Africa. Colonel Furlong spent six hours getting this man's story, the details of which, as well as the Stanley data, he intends to publish on his return to the United States.

THE FOURTH WORLD POULTRY CONGRESS

THE Fourth World Poultry Congress, which was opened at the Crystal Palace by the Duke of York on July 22, closed on July 30. The London *Times* reports that during the congress 2,400 delegates and members registered from 61 countries, and about 80,000 people passed the turnstiles.

At the final assembly of delegates and members, presided over by Mr. F. C. Elford (Canada), president of the World Poultry Science Association, an address was sent to the King expressing appreciation of the manner in which the government and departments of state had organized the congress and exhibition, and of the hospitality accorded to them.

A resolution was also adopted thanking the Governments of Great Britain and Northern Ireland and the Ministry of Agriculture and Fisheries for the welcome accorded to the delegates and their admiration of the organization of the congress and exhibition. Another resolution thanked the World's Poultry Science Association, which initiated the congress; the congress officials, with special acknowledgment of the services of Mr. Percy A. Francis, director, and Dr. Wilkins, secretary; the committees and the hosts on various excursions, and to Mr. H. J. Buckland, general manager of the Crystal Palace.

Several resolutions were submitted from the various conference sessions. The education and general section passed a resolution, by seventeen votes to seven, "that the various government departments and egg-laying competition committees conducting egg-laying competitions be asked to consider the advisability of introducing the 2 oz. standard from the beginning of the competition." This was amended by the addition of the metric equivalent, 56.7 grams, and adopted.

Another resolution, adopted unanimously by the education and general section, was "that during the next three years the council of the World's Poultry Science Association draw up, with the assistance of sub-committees, universal standards for all the different breeds of poultry, such standards to be submitted to the next World's Poultry Congress." The feeling of the assembly was that although international standards represented an ideal to which all would subscribe, it was not sufficiently practical to justify taking up the time of the next congress, and the resolution was not adopted.

The diseases section unanimously recommended "That the attention of the various governments be drawn to the danger of the importation of 'Newcastle' (or 'Ranikhet') disease, with a view to suitable measures being taken for its exclusion and control in each country." On the suggestion of Dr. te Hennepe (Holland) the name "pseudo fowl pest" was preferred to "Newcastle" disease, and with this amendment the resolution was adopted.

The economics section resolved that it was a matter of urgent importance that each government should include poultry statistics in every agricultural census. This was adopted without discussion.

The economics section also adopted a resolution, on the motion of the Dutch delegates, expressing the view that all eggs cold stored in any country should be stamped with an internationally agreed mark. Amendments were submitted to include gas-stored as well as cold-stored eggs. In this form the resolution was carried. The assembly also adopted a resolution asking the International Institute of Agriculture at Rome to convene a conference to discuss an international scheme for identifying stored eggs.

HONORARY DEGREES CONFERRED BY LEHIGH UNIVERSITY

LEHIGH UNIVERSITY conferred at the commencement the honorary degree of doctor of engineering on Mr. Thaddeus Merriman, '97, son of the late Mansfield Merriman, who was professor of civil engineering at Lehigh for almost thirty years, and the degree of doctor of science on Commander Nicholas H. Heck, '03, chief of the division of terrestrial magnetism and seismology of the United States Coast and Geodetic Survey.

In presenting Mr. Merriman to President Richards for the degree, Professor Ralph J. Fogg, head of the department of civil engineering, gave the following outline of his career and accomplishments:

Thaddeus Merriman, whose noteworthy accomplishments and engineering skill have gained for him the distinction of being one of America's chief authorities on municipal water supply, is presented for the honorary degree of doctor of engineering.

Graduating from Lehigh in 1897 with the degree of civil engineer, Mr. Merriman received his early experience on geological reconnaissance work in Pennsylvania and surveys for the United States, Nicaragua and Isthmian Canal Commissions.

Since 1902 he has been in continuous service in the water works field, starting with the Jersey City Water Supply Company as assistant engineer on the Boonton Dam, and later as division engineer with the East Jersey, Passaic and Acquackanonk Water Companies. He has served on the engineering staff of the Board of Water Supply of the City of New York for twenty-five years, receiving successive promotions to his present responsibility as chief engineer, which position he has filled since 1922. Under his direction was prepared the plan for a new water supply from the upper tributaries of the Delaware River; the estimated cost of this project, including the delivery of water into New York City, being over three hundred million dollars.

In 1918 Mr. Merriman was called to Greece for the purpose of investigating the proposed water supply for the city of Athens. Last fall he was signally honored by being made chairman of the Board of Engineering Review of the Metropolitan Water District of Southern California.

It is interesting to recall that on Founder's Day, seventeen years ago, the honorary degree of Doctor of Laws was conferred on Mr. Merriman's father, Mansfield Merriman, Lehigh's great writer and teacher of engineering.

President Richards's citation follows:

Thaddeus Merriman, loyal son of Lehigh, distinguished in service with the U. S. Nicaragua Canal Commission, with the U. S. Isthmian Canal Commission and with the Board of Water Supply of New York City, now chief engineer of the latter, contributor to the science and practice of hydraulics and water supply engineering as