

There is no better way of getting a good grasp of your subject, or one more likely to start more ideas for research, than teaching it or lecturing about it, especially if your hearers know very little about it, and it is all to the good if they are rather stupid. You have then to keep looking at your subject from different angles until you find the one which gives the simplest outline, and this may give you new views about it and lead to further investigations. I believe, too, that new ideas come more freely if the mind does not dwell too long on one subject without interruption, but when the thread of one's thoughts is broken from time to time. It is, I think, a general experience that new ideas about a subject generally come when one is not thinking about it at the time, though one must have thought about it a good deal before.

J. J. Thomson was born at Cheetham Hill, near Manchester, England, on December 18, 1856. He attended Owen's College, Manchester, in the 70's, and entered Trinity College, Cambridge University, in 1876. With Kelvin and Clerk Maxwell he formed one of an illustrious trio, none of whom succeeded in being Senior Wrangler. He was Second Wrangler and Second Smith's prize man in 1880, and he was elected as a fellow of Trinity College in the same year. In

1883 he was made lecturer at the college. In 1884 he became a fellow of the Royal Society, of which he was president from 1916 to 1920. From 1884-1918 he was Cavendish professor of experimental physics at Cambridge University, from which position he retired to become master of Trinity College. Naturally he was the recipient of numerous honors and distinctions, the author of countless papers and of several books, the most famous of which is his "Conduction of Electricity through Gases."

When a man dies one thinks of the spirit as vanishing and only of the body as remaining; but in the case of J. J. Thomson there is much of the reverse in the picture, for the spirit of the great leader is the thing which, born to science half a century ago when he founded his new school, lives still in his students and in their students, a spirit enthroned for all time in the empires of natural philosophy.

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SCIENTIFIC EVENTS

SCIENTIFIC DEVELOPMENTS IN THE U.S.S.R.

Nature gives the following information concerning the new botanical gardens in Armenia and the construction of a cyclotron in Moscow.

The construction of a powerful cyclotron, capable of producing 50 million electron volt deuterons, will be commenced in Moscow early in 1941, according to a decision of the Academy of Sciences of the U.S.S.R., based on a report submitted by the Physical Institute of the Academy. A magnet, the core of which weighs about 1,000 tons and solenoid of 18 tons, is to be installed. A special building to house the cyclotron will be erected in the grounds of the new home of the Physical Institute of the Academy, being built on the Bolshaya Kaluzhskaya Ulitsa in Moscow. The old apparatus in the Soviet Union, which is in the Radium Institute of Leningrad, is capable of giving an energy of 4 million electron volts to particles; another, nearing completion at the Physico-Technical Institute, also in Leningrad, will be capable of imparting an energy of 10-12 million electron volts.

New botanical gardens, attached to the Armenian Branch of the Academy of Sciences of the U.S.S.R., were recently opened in Erivan, capital of the Soviet republic of Armenia. The gardens, which have some three thousand species of plants, have grown up during the course of five years on the dry, stony, desert

soil between the settlements of Avan and Kanaker, near Erivan, which has been reclaimed. One of the most interesting departments of the gardens is the section devoted to the plants of Armenia. Ultimately, some 2,600 specimens of the flora of this republic will be collected there; the section already has 350 specimens. In the center of this section has been built a pond, resembling the high mountain lake of Sevan. In the pond have been planted specimens of water plants of Armenia. In the southern part of the gardens the Geographical Department is concentrated. More than half the area of the gardens is occupied by arboreal plants. The flower gardens are exceptionally rich; in the Avenue of Roses and Fountains more than a hundred varieties of roses have been planted.

THE DIVISIONAL PROGRAMS FOR THE ST. LOUIS MEETING OF THE AMERICAN CHEMICAL SOCIETY

ACCORDING to the *News Edition* of the American Chemical Society, all divisions except the Division of Fertilizer Chemistry have programs planned for the St. Louis meeting, which will be held from April 7 to 11.

The Division of Agricultural and Food Chemistry is planning two symposia, one on "Fortification of Foods with Minerals and Vitamins" and the other on "Fats." The division plans to participate in the vitamin program