

exactly on a par with the idea of frequency which existed in the pre-Bohr days.

Perhaps the boldest step which has been made in the development of the new "wave-mechanics" is de Broglie's quantization of the total energy (including mass energy) of the electron. It is allowable, perhaps, to think of the electron as a bounded system, and as a very nearly closed system. If the energy of the electron is to be thought of as due to motion within the electron, this motion must be periodic because a steady state of motion in a bounded system (except for purely translatory motion) must be periodic. Of course the motion might involve a number of distinct periods, as in the transverse vibration of a steel bar, for example, but one's first guess would be one frequency ν and therefore the total energy of the electron would be placed equal to $h\nu$.

The quantization of the motion of a bounded closed system seems to me to be more reasonable than the quantization of a detached portion of light energy whose frequency *was* fixed by the system which emitted the light.

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SCIENTIFIC EVENTS

THE NEW HARVARD COLLEGE OBSERVATORY IN SOUTH AFRICA

A CONTRACT has been let by the Harvard College Observatory for the construction of a 60-inch reflecting telescope to be mounted at a new southern astronomical station to be located somewhere in the Union of South Africa. The exact site has not yet been chosen, but a location near Bloemfontein, capital of the Orange Free State, is being seriously considered.

The new telescope, to be the largest in the southern hemisphere, will be constructed by J. W. Fecker, at Pittsburgh, Pennsylvania. It will have an aperture of a little over 60 inches and a focal length of 27 feet. It will be used for photographic, photometric and spectrographic work on stars and nebulae, and for study of the Magellanic clouds and the large southern clusters.

Two photographic refractors and three photographic telescopes, now at the Boyden station at Arequipa, Peru, will be moved to the new site in South Africa where they will be placed on mountings now being made in this country.

The transfer of the station from Peru to South Africa is being supervised by Dr. John S. Paraskevopoulos, superintendent of the Arequipa station. The new station is expected to be the largest in the

southern hemisphere. Photographs will be shipped regularly to the Harvard Observatory at Cambridge for study and filing in the photographic collection there.

The new telescope has been made possible by gifts to the Harvard Observatory by the Rockefeller International Education Board and by Harvard University.

A MEDICAL CENTER FOR WASHINGTON, D. C.

PLANS for the establishment in Washington of an extensive medical center have been launched by the executive heads of the Garfield Memorial Hospital, the George Washington University and the Washington Home for Foundlings.

The basis of the agreement is the fact that the experience of many other cities has demonstrated the value of the establishment of great medical centers in which close and lasting associations have been formed between the work of theoretical medical instruction and the practical instruction afforded by the facilities for clinical teaching found in hospitals and dispensaries.

The plan contemplates that the Washington Home for Foundlings shall build upon the grounds of the Garfield Memorial Hospital a hospital for the care and treatment of cancer and cancer research laboratories, under the provisions of the Warwick bequest. This building will be known as "The Helen L. and Mary E. Warwick Memorial."

The George Washington University Medical School will erect a new medical school building in the vicinity of Garfield Memorial Hospital. Ultimately the work now being done in the George Washington University Hospital will be transferred to the Garfield Memorial Hospital, but the work of the George Washington University Hospital will be maintained until, in the judgment of the trustees of the university, it is practicable to sell the hospital and medical school property upon favorable terms and conditions.

Upon discontinuance of the university hospital, the university medical faculty and hospital staffs will be organized in a manner to carry on the clinical and laboratory work in the Garfield Hospital and the Cancer Hospital under conditions most favorable to high grade hospital service and medical education as well.

Those who are parties to the agreement wish to emphasize the fact that there will be no change in the activity of any of the institutions until such time as the actual changes in buildings are brought about, and that the support given to the various institutions will be continued with the added incentive that all will now be contributing to an important project along the most efficient and modern lines.