

Opportunities

Education

While scientifically inclined youths throughout the country make ready to compete for the privilege of training to succeed Thomas A. Edison, a survey indicates that thousands of opportunities await the ambitious and gifted student.

It is estimated that at least 10,000 scholarships are offered annually by American universities and colleges to those taking undergraduate work or about to enter college. Some of these offer full tuition, a few provide living expenses as well and many lend a helping hand to the student's own efforts. Such scholarships allow the student to complete his four years of study leading to a bachelor's degree. A large percentage of them are available for study in the sciences.

When the student has obtained his undergraduate degree and desires to do advanced graduate work in science, some 600 scholarships or fellowships await in science subjects. This is estimated to be the number available in American universities.

To carry training further, to afford opportunity for actual research work under favorable conditions in the laboratories of great teachers and scientists here and abroad, the National Research Council, Washington, administers some 125 research fellowships in medicine, physics, chemistry, biology and allied sciences. Committees of leading scientists choose the fellows on the basis of their training and abilities. Some are given an opportunity to work in agriculture, forestry, and other such branches as well as the more theoretical sciences.

About 80 men and women, among them artists and writers as well as scientists, are given fellowships annually by the John Simon Guggenheim Foundation, New York, to carry on work abroad. The National Research Council and the Guggenheim fellowships are for more mature individuals and possession of a Ph.D. degree or the equivalent is a necessary requisite in most cases. These fellowships are sufficiently generous to allow the holders to pursue their studies without financial worries.

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To carry out Tokyo's plans for rebuilding and city planning since its earthquake, many property owners are being forced to give up one-tenth of their land without compensation, for highway construction purposes.

Careers in Science

Education

Any student considering making science his life work needs advice and information in order that he may apply his peculiar abilities to the best advantage. The National Research Council for the past decade has given special attention to the opportunities which are open to the gifted student. In connection with this work several informative pamphlets have been issued. Among those still available for free distribution in limited number to those seriously interested are: "An Open Letter to College Seniors" by Prof. Carl E. Seashore; "The Gifted Student and Research," by Prof. Carl E. Seashore; "Agriculture

Research as a Career," by Dr. E. D. Ball; "The Field for Chemists," by Dr. Wilder D. Bancroft; "Engineering Research as a Career," by Dean A. A. Potter; "Forestry as a Career," by Dean Henry S. Graves; "Geology as a Career," by Prof. James F. Kemp; "Mathematics as a Career," by Prof. C. J. Keyser; "Research in the Medical Sciences," by Prof. Frederick P. Gay; "The Research Career in Public Health," by Dr. David L. Edsall; "Zoological Research as a Career," by Dr. C. E. McClung. Requests should be addressed to the National Research Council, B and 21st Streets, Washington, D. C.

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Search for Genius—Continued

Three hours should be set aside for the Thorndike test of abstract intelligence.

Edison's questionnaires, to judge from those which have been published, are not reliable enough. He seems never to have applied to them the rigorous scientific standard of verification which he imposes on his physical and chemical researches. The separate items in the questionnaires need severe pruning and experimental validation. If an information test were to be included in the battery I would use the Inglis vocabulary test as revised by O'Connor. Strong's interest analysis for revealing engineering aptitude would help. The physique of the candidates should also be compared by measuring their endurance and output of energy. Finally their individual rankings in all the separate examinations should be properly weighed and combined in a convenient and statistically sound manner. If there is a mind like Edison's among the candidates this is the surest way to find it.

Search Will Stimulate Young Inventors

By DONALD A. LAIRD

Director, Psychological Laboratory, Colgate University, and Editor of "Industrial Psychology"

Very few men like Edison appear in a century and it will tax the wizard himself to pick a successor. Even though he may not uncover a genius of his peculiar calibre—and I doubt if he will—he is unquestionably doing a great deal through his search to stimulate the interest of a large number of young men in looking toward

the future inventive developments of our civilization.

It is to be hoped Edison will impress upon the forty-nine most promising the importance in coming years of directing inventive efforts to man's mental equipment, which his own search shows he realizes is vital to carry on our civilization without a lopsided development. His questionnaire will give an approximate measure of the practical general intelligence of the candidates which is important for inventive genius. But how to measure the emotional drives and real desire for achievement which are also important is still a problem. These non-intelligence factors may be more necessary than mere knowledge and intelligence.

Careers Should Be Followed

By L. J. O'ROURKE

Director of Personnel Research, U. S. Civil Service Commission

Mr. Edison's experiment will stimulate general interest in the subject of special aptitudes and individual differences. The 49 different methods adopted by the governors and the District of Columbia commissioners should challenge research students to improve our methods of selecting those with talent.

It would be interesting, though difficult, to follow the contributions to science made by the competitors making high and low scores on the test given by Mr. Edison.

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The magnetic poles are more than 1,000 miles away from the geographic poles.