

Courtis has tested the mathematical ability of several thousand school children in New York and Boston, and described the results of his tests.

DR. R. RUGGLES GATES, lecturer in biology, St. Thomas Hospital, London, is giving a course of lectures on heredity and mutations at the Imperial College of Science and Technology.

THE fourth centenary of the birth of Andreas Vesalius, the pioneer of modern anatomy, will be celebrated this year with appropriate ceremonies at Brussels.

THADDEUS S. C. LOWE, of Los Angeles, chief of the aeronautic corps of the U. S. Army during the civil war, died on January 16, in his eighty-first year. Mr. Lowe made inventions in various fields, including balloons and instruments for atmospheric investigation, and artificial ice, metallurgical and water-gas apparatus. He built the Mount Lowe railway and established the Mt. Lowe Observatory in the Sierra Madre Mountains.

PROFESSOR GEORGE AUGUSTUS KOENIG, professor of chemistry at the Michigan College of Mines since 1892, and previously professor of mineralogy and metallurgy in the University of Pennsylvania, died on January 14, aged sixty-eight years.

M. LOUIS PAUL CAILLETET, the distinguished French chemist, known especially for his work on iron and acetylene and on liquefaction of gases, has died in his eighty-first year.

THE death is also announced of M. Léon Teisserenc de Bort, the French meteorologist, known especially for his work with captive balloons.

DR. OTTO SCHOETENSACK, professor of anthropology at the University of Heidelberg, died on December 23 in his sixty-third year.

DR. YUJIRO MOTORA, professor of psychology in the University of Tokyo, died on December 12. Dr. Motora took the doctor's degree in psychology about twenty-five years ago at Johns Hopkins University.

FREDERIK HJALMAR JOHANSEN, who accompanied Dr. Nansen in sledge journey across the North Polar ice, and Captain Amundsen

on his recent Antarctic expedition, has died at the age of forty-six years.

WE regret also to announce the death of Dr. E. Tavel, professor of surgery at Bern, and Dr. G. Tilling, professor of surgery at St. Petersburg.

#### UNIVERSITY AND EDUCATIONAL NEWS

THE Rev. John Henry Ellis, of Collingham-gardens, South Kensington, has left, subject to his wife's life interest, the residue of his property, which will amount to not less than £90,000, to Cambridge University, "to be enjoyed and applied both as to capital and income by them for the general purposes of the university, in such manner as they may think fit."

AN anonymous graduate has given Harvard University \$80,000 for a building for the department of music, and other graduates and friends have subscribed as an endowment fund for its maintenance more than \$50,000. It will be used for the courses in the theory and history of music, the only branches of that subject which are taught at Harvard. It will have a hall of suitable size for chamber concerts, in which will probably be installed a pipe organ. The building will also be the headquarters for the musical organizations of the university.

YANKTON COLLEGE has received from Mr. James J. Hill an offer of \$50,000 for increasing the endowment, conditioned on the raising of \$200,000 in addition, within two years.

BATES COLLEGE dedicated on January 14 its new science building, Carnegie Hall. President George C. Chase gave a brief historical address, outlining the growth of the scientific departments at Bates in recent years, and telling of the efforts necessary to raise the \$100,000 in order to claim Mr. Carnegie's gift of \$50,000. Professor William T. Sedgwick, of the Massachusetts Institute of Technology, gave the formal address, taking as his theme, "The Interpretation of Nature."

AT the winter meeting of the board of trustees, Cornell University, held in New York on January 18, the election of a dean of the faculty of arts and sciences was referred to

the faculty with power. This is in accordance with the recommendation made by President Schurman in his last annual report. Hitherto the deans have been nominated by the president and appointed by the trustees.

At Harvard University Dr. L. J. Rhea has been appointed assistant professor of pathology, and Dr. Dunham Jackson instructor in mathematics.

Dr. ALEXIS HARDING, of Geneva, N. Y., has been appointed to the department of dairy husbandry in the Agricultural College of the University of Illinois with the title of professor of dairy bacteriology in the college and chief in dairy bacteriology in the station.

Dr. KARL M. WIEGAND has been appointed professor of botany in the State College of Agriculture of Cornell University.

#### DISCUSSION AND CORRESPONDENCE

##### UNDERGRADUATE RESEARCH WORK IN MEDICAL SCHOOLS

TO THE EDITOR OF SCIENCE: A recent article in SCIENCE (November 29, 1912) by Mr. Drinker comments upon "Undergraduate Research Work in Medical Schools." In this article I find certain points that deserve comment. One of these points is this:

If we classify all these schools upon the basis selected by Mr. Flexner in the first report of the Carnegie Foundation in Medical Education, namely, upon the possession or lack of a two years' college entrance requirement, we find that of the schools permitting undergraduate research five fail the test.

The University of Cincinnati is one of the five. Another point is contained in the clause, "Schools permitting research and giving no visible time for it," etc.

I desire to point out that unless qualifications are added to such statements they are very misleading; and also I desire to point out that making the point of a one-year or a two-year requirement means absolutely nothing unless the facts concerning the enforcement of such a requirement are known, and unless the requirement itself is a definite one. I make this statement upon the basis of certain facts that I have collected in the past year.

The University of Cincinnati demands for entrance to its college of medicine one year of specified work in subjects which are generally conceded to be advisable, if not necessary, premedical subjects; namely, physics, chemistry, biology and modern language. At the University of Cincinnati, a year in these subjects means a certain amount of ground covered, in a certain amount of time, *i. e.*, three lecture periods (hour periods), and two three-hour laboratory periods, per week. The admission committee of the college of medicine, composed of the heads of the departments of chemistry, anatomy and pathology, have insisted that students coming from other colleges should present a *working* knowledge in physics, chemistry and biology equal to that demanded of University of Cincinnati premedical students. In the past year or so a few students have been refused admission by our admission committee, in spite of the fact that they had had a college year of physics, chemistry and biology, but had had courses in these subjects which could not reasonably be expected to produce the results that we demanded, or which did not produce these results, as proved by practical, oral, tests. Such students, however, had no difficulty in entering colleges whose announcements place them in the first group of Mr. Flexner. Apparently it is sometimes true that a one-year standard is a higher one than a two-year standard. It makes a great deal of difference whether a school lives up to a standard of efficiency, or a standard of prose (or poetic terms).

With regard to the "visible time" for research, I have no fault to find with Mr. Drinker, because in spite of everything he reaches a conclusion that appeals to me, but "visible time" in a schedule means nothing. If there is no "visible time" it may mean that the schedule has been arranged to suit the students who have just met the requirements, and that, so to speak, "invisible" time is a plenty for those who have more than met such requirements. But even aside—even admitting that all the students just meet the requirement—one needn't treat them all alike. As a matter of fact, it were well to try to treat