UNIVERSITY AND EDUCATIONAL NOTES

DR. ALEXANDER RUTHVEN, dean of administration in the University of Michigan, has been appointed acting president of the university.

DR. WILLIAM S. FRANKLIN, since 1917 professor of physics at the Massachusetts Institute of Technology, has become professor of physics at Rollins College.

PROFESSOR ALDEN B. DAWSON, of the University Heights section of the department of biology, New York University, has accepted a call to the department of zoology at Harvard University. The following new appointments in biology at University Heights have been made: Associate Professor Otto M. Helff, of the University of Iowa, to be associate professor; Dr. Daniel Ludwig, University of Pennsylvania, to be assistant professor, and Dr. Carl J. Sandstrom, University of Chicago, instructor.

APPOINTMENTS at Union College include the following assistant professors: Ernest E. Dale, of the University of Porto Rico, in biology; Dr. Hugh H. Hyman, in physics, and Dr. Ernest M. Ligon, in psychology.

MILLARD PECK, bureau of agricultural economics of the Department of Agriculture, has become professor of agricultural economics in Iowa State College, Ames.

JAMES R. THAYER has resigned his position as research chemist at Parke, Davis and Company, to become assistant professor of materia medica in the California College of Pharmacy, San Francisco.

DR. EARL C. O'ROKE, of the University of California, who has been carrying on research in zoology for the California Fish and Game Division, has been appointed assistant professor of forest zoology in the University of Michigan School of Forestry and Conservation.

DR. NORBERT WIENER, of the Massachusetts Institute of Technology, is visiting professor of physics at Brown University, and Dr. Arthur M. Banta, of the Carnegie Institution at Cold Spring Harbor, N. Y., has been appointed acting professor of biology. Dr. William A. Noyes, Jr., of the University of Chicago, has been appointed associate professor of chemistry.

PROFESSOR DR. CHARLES TERZAGHI, of the Massachusetts Institute of Technology, has accepted a call to a professorship of hydraulics at the Viennese Technical High School.

M. DAGUIN has been appointed professor of geology and mineralogy at Bordeaux to succeed M. Mengard.

DISCUSSION

SOME NEW LAWS FOR THE SOLAR SYSTEM

APROPOS of A. E. Caswell's suggested law, namely, "the mean distances of the planets from the sun are proportional to the squares of simple integral numbers," the writer wishes to point out the following corrections, extensions and other new laws.

(1) The percentage deviation from proportionality to the *squares* of the integers is double that indicated by him.

(2) Since the earth's distance is taken as a standard in all measurements, one would expect a good reason for not assuming its distance to correspond to a perfect square of an integer (in this case 5). If this is done the deviations from the above law are as high as 12 per cent.

(3) One would expect similar relations to hold for the satellites of the planets. For the satellites of Mars the ratio $5^2 : 8^2$ holds quite closely. For the four satellites of Uranus the ratio $5^2 : 6^2 : 8^2 : 9^2$ holds poorly. But for the satellites of Saturn and Jupiter one must either omit several or resort to initial numbers greater than 5^2 for the nearest satellite. Of course, if large integers are to be admitted one may get as close a fit as one pleases for almost any distribution of distances. On the whole the evidence from this source is unfavorable to a deep-seated significance for the relation cited.

(4) The writer would point out a relation that depends *strictly* on the square root of the distance of a planet from the sun or a satellite from its planet. It is the velocity, which varies inversely as the square root of the distance from the axis of revolution. For the planetary system one could then state as a law: *The velocities of the planets are inversely in proportion to simple integral numbers.* Thus,

Planet	Period	Mean velocity	30.3/mean velocity	Nearest integer
Mercury	0.2408	10.1006	3	3
Venus	0.6152	7.3872	4.1	4
Earth	1.000	6.2832	4.83	5
Mars	1.88	5.0924	5.95	6
Jupiter	11.86	2.7563	11.0	11
Saturn	29.46	2.0344	14.9	15
Uranus	84.01	1.4346	21.1	21
Neptune	164.6	1.1464	26.5	27