crops)—was as follows: Peaches, 128.6; winter wheat (yield per acre), 110.5; clover (production compared with average production), 105.5; rye (yield per acre), 101.8; hops, 100.1; peanuts, 99.8; oats, 98.7; sweet potatoes, 98.5; lemons, 98.3; rice, 98.2; tomatoes, 97.5; sugar cane, 97.0; broom corn, 96.7; corn, 96.6; buckwheat, 96.5; onions, 96.1; cabbages, 95.9; beans, 95.8; oranges, 95.6; cantaloupes, 95.2; hay, 95.2; cotton, 95.1; tobacco, 95.0; watermelons, 94.0; sorghum, 93.6; sugar beets, 93.6; hemp, 91.0; alfalfa, 90.1; grapes, 89.5; potatoes, 88.1; apples, 86.3; barley, 82.1; pasture, 81.8; kafir corn, 81.6; millet, 80.3; raspberries, 78.0; blackberries, 76.6; spring wheat, 74.5; flax, 58.5.

IT is stated in *Nature* that at the last meeting of the British Science Guild, held in the rooms of the Royal Geographical Society, communications were received from the Canadian and New South Wales sections of the Guild. In the case of the Canadian section, Lord Grey is resigning the presidentship on account of his departure, and it is hoped that Lord Strathcona will act as president in his place. No fewer than 120 members have joined the New South Wales section of the Guild, and important literature has been forwarded in connection with technical education and the report on open-air spaces for school children in Sidney. The agricultural memorial to the prime minister having received numerous signatures from representative agricultural societies and others was ordered to be submitted to the prime minister. The report of the committee on the synchronization of clocks was finally approved, and it was decided to approach the Local Government Board by deputation and to ask the president to promote legislation on the subject.

THE *Experiment Station Record* states that a secondary school of agriculture for Vermont boys is to be opened next September in connection with Lyndon Institute, Lyndon, Vt. A two-year course in scientific and practical agriculture will be given, designed to prepare young men for successful farming under Vermont conditions. The course will extend over 9 months of each year and will be open to residents of the state eligible for admission to any approved high school. A unique feature of the school is the provision of two methods by which students may pay their expenses, a cash payment system and a work payment system. Boys who choose the latter method will be required to stay at the school throughout the year and will be allowed $25 a month with board and lodging during vacation time and 15 cents an hour for work during the school year. The establishment of the school has been made possible through a gift of Theodore N. Vail, President of the American Telegraph and Telephone Company. The director of the school will be Arthur W. Merrill, a graduate of the New Hampshire College, and for several years teacher of agriculture at the Baron de Hirsch School.

UNIVERSITY AND EDUCATIONAL NEWS

DR. HARRY BURNS HUTCHINS, in accepting the presidency of the University of Michigan, states that he does so on the express condition that he be relieved of the duties of the office at the expiration of five years. Dr. Hutchins graduated from the University of Michigan in 1871, and has been dean of the department of law since 1895.

DR. FRANK LEROND MCVEY will be installed as president of the University of North Dakota on September 29. On that and on the preceding day there will be various academic exercises including the dedication of two new buildings. Addresses are to be given by Dr. Edmund J. James, president of the University of Illinois; Dr. George E. McLean, president of the University of Iowa; the Rev. S. P. Matheson, chancellor of the University of Manitoba, and Dr. A. Ross Hill, president of the University of Missouri.

E. DWIGHT SANDERSON, recently director and entomologist of the New Hampshire Agricultural Experiment Station, has accepted the position of dean of the College of Agriculture, West Virginia University, and will be at Morgantown, W. Va., after September 1.

THE following new appointments for the Kansas State Agricultural College are an-

nounced: Francis H. Slack, M.D. (Tufts), director of the laboratories of the Boston Board of Health, to be professor of bacteriology; J. S. Hughes, A.M. (Ohio), to be assistant in chemistry, and C. H. Clevenger, A.M. (Chicago), and Edward Bartholow, A.B. (Kansas), to be assistants in mathematics.

The *Journal* of the American Medical Association states that considerable dissatisfaction has been manifested in the medical and lay press of Hungary toward the appointment of Dr. L. Nekam to the chair of dermatology in the University of Budapest on the recommendation of Count Fichy, minister of public instruction, whose appointment has been sanctioned by Emperor Francis Joseph. The committee of the medical faculty had proposed the names of Drs. Török and Marschalko, to the general board whose duty it was to investigate and report on the applicants. This body entrusted this duty to a theologian, who ignored the proponents of the medical faculty and appointed Dr. Nekam, with the resulting dissatisfaction.

It is announced that a national office of French universities and schools has been inaugurated under the presidency of M. Paul Deschanel, of the French Academy. Professor Paul Appell, of the University of Paris, and Professor Georges Lyon, of the University of Lille, have been elected vice-presidents and Dr. Raoul Blondel has been appointed director. The new department is to be installed at the Sorbonne, and its object will be to make known to foreigners the educational resources of France.

DISCUSSION AND CORRESPONDENCE

SELECTIVE FERTILIZATION AND THE RELATION OF THE CHROMOSOMES TO SEX-PRODUCTION

Explanations as to what one has really said or meant make dull reading, but are sometimes pardonable in the interest of accuracy. Some one has said (was it W. K. Clifford?) that there are some subjects concerning which it is often difficult to be sure what others mean, and not always easy to be sure what one means oneself! Perhaps selective fertilization and its relation to the "sex-chromosomes" is one of these. At any rate, I find with some surprise that a number of recent writers seem to regard me as an advocate of a conception that I have from the first held to be improbable. The hypothesis of selective fertilization (with all that it implies) may be true, but it is not true that I have anywhere, to my knowledge, maintained or advocated it. On the contrary, already in the second of my "Studies on Chromosomes" this hypothesis was characterized as "*a priori* very improbable" (1905, p. 539), and I have since steadily sought to find an interpretation of the cytological facts that would not involve such a way of cutting the Gordian knot of the sex-problem.

In my third "Study" (1906), where this question was first fully considered, I suggested for purposes of analysis, two possible ways of interpreting the observed facts, but advocated neither owing to insufficiency of data. The first (characterized, rather unluckily, as the "Mendelian interpretation"), assumed, "for the purpose of analysis," that "the two sex-chromosomes, which couple in synapsis and are subsequently disjoined by the reducing division, are respectively a male-determinant and a female-determinant"—*i. e.*, that the two bear opposing or alternative male- and female-determining factors or "genes." Analysis brought out the fact that this assumption led to selective fertilization as a necessary corollary. But even in my first preliminary paper (1905) it was pointed out that this interpretation encountered "great, if not insuperable difficulties." Regarding this, the third "Study" states, "It has not been my intention to advocate the foregoing interpretation, but only to set forth as clearly as possible the assumptions that it involves" (p. 33). Admitting that it "might in fact give the true solution of the problem," I nevertheless "endeavored to seek for a different interpretation that might escape the necessity for assuming selective fertilization" (p. 33). The second interpretation, representing such an attempt, was based on the quantitative re-