

delegates from France and foreign societies were present.

UNIVERSITY AND EDUCATIONAL NEWS

WE learn from the *Experiment Station Record* that the legislature of Minnesota has passed an act providing state aid for ten high schools or consolidated rural schools which maintain agricultural and industrial departments. The state will pay two thirds of the expense to maintain these departments provided that each school employs trained instructors in agriculture, manual training, and domestic science, possesses not less than 5 acres of land suitable for school gardens and experimental and demonstration purposes, and that the total expenditure for each school does not exceed \$2,500. The ten schools selected are the high schools at Albert Lea, Alexandria, Canby, Glencoe, Hinckley, Red Wing and Wells, the high schools and associated rural schools at Cokato and McIntosh and the consolidated school at Lewiston. The act also provides that not to exceed ten schools may be added to the list during each succeeding biennium.

THE assembly of Iceland has decided to establish a university at Reikjavik, with four faculties and sixteen professors and lecturers.

THE number of students in the universities of the German empire has this summer reached 51,700, an increase of about 3,000 over last winter and of 4,000 over the summer of 1908. There has been a large increase in the faculties of medicine and philosophy and a decrease in the faculty of law.

G. W. STEWART, A.B. (DePauw, '98), Ph.D. (Cornell, '01), has been elected professor of physics and head of the department at the State University of Iowa, to fill the vacancy caused by the removal of Professor Karl E. Guthe to the University of Michigan.

At the University of Wisconsin, Mr. E. E. Eldridge, of New York, a graduate of Cornell University, has been appointed assistant in bacteriology. Mr. Albert I. Stevenson, Massachusetts Institute of Technology, has been made chemist in the State Hygienic Labora-

tory connected with the university. In the engineering college faculty Mr. Charles G. Buritt, '09, Mauston, has been appointed instructor in railway engineering, and W. C. Muhlstein, '09, Grand Rapids, assistant in the same department. J. A. Cutler, '09, Dodgeville, is instructor in topographical engineering. George B. Blake, '08, Huron, S. D., and S. S. Hovey, a graduate of Iowa State College, are new assistants in electrical engineering. B. S. Wood, who was formerly instructor in wood work, is now instructor of pattern work.

THE following changes in the faculty of the University of Utah are announced: Frank A. McJunkin, M.D. (Michigan), now instructor in bacteriology at the University of Michigan, succeeds Ross. Anderson, M.D., as professor of bacteriology and pathology and becomes state bacteriologist and pathologist; R. B. Ketchum, C.E. (Illinois), at present chief engineer of the Kansas and Colorado Railroad Co., becomes assistant professor of civil engineering; A. A. Knowlton, A.B. (Bates), A.M. (Northwestern), now associate professor of physics at Armour Institute, succeeds L. W. Hartman, Ph.D., as associate professor of physics; Wm. H. Chamberlin, A.B. (Utah), A.M. (California), becomes lecturer in philosophy, and Kenneth Williams, B.S. (Pennsylvania), now chemist for the Tintic Smelter, becomes instructor in chemistry.

DR. I. M. LEWIS, instructor in botany in New Hampshire College, has been appointed instructor in botany in the University of Texas.

THE Belfast University commissioners have made the following appointments in the Queen's University, Belfast: *Professorships*—Botany: Mr. D. T. Gwynne-Vaughan, M.A. Cantab., formerly lecturer in botany, Glasgow University and Birkbeck College, London. *Lectureships*—Organic chemistry: Mr. A. W. Stewart, D.Sc. Glasgow, lecturer in stereochemistry and assistant to Professor Sir W. Ramsay, University College, London. Physics: Mr. Robert Jack, M.A., D.Sc., Ph.D. Glasgow and Göttingen. Bio-chemistry: Mr. J. A. Milroy, M.A., M.D. Edinburgh, demonstrator of physiology, Queen's College, Belfast. Geology and geography: Mr. A. R. Derry-

house, M.Sc., D.Sc., F.G.S., assistant lecturer in geology, Leeds University. Hygiene: Mr. W. J. Wilson, B.A., M.D., R.U.I., Riddell demonstrator of pathology and bacteriology, Queen's College, Belfast.

DR. ARTHUR ROBINSON, professor of anatomy in the University of Birmingham, has been called to the chair of anatomy in Edinburgh University, rendered vacant by the death of Professor D. J. Cunningham.

Nature is informed that the appointments to the chairs of chemistry in the Technical High School at Munich have just been officially announced. The names of the professors are: Organic chemistry, Professor Semmler; inorganic chemistry, Professor A. Stock; physical chemistry, Professor R. Abegg. Each professor has an institute of his own, and Professor Abegg retains, at the same time, his position as extraordinary professor in the University of Breslau. The Technical High School, which is being built at a cost of something like five million Marks, is making good progress, and is to be opened officially in October, 1910.

DR. F. RINNE, professor of mineralogy at Kiel, has been called to Leipzig.

DISCUSSION AND CORRESPONDENCE

TELEGONY AS INDUCED REVERSION

DARWIN and many other students of heredity have believed in telegony, and have collected many alleged examples. The typical instances were the striped colts produced by mares that had previously borne quagga hybrids.¹ The original theory of telegony assumed that the stripes of the later colts were inherited from the quagga sire of the first colt. Various attempts have been made to show how this could come about, but they were not able to secure scientific credence.

The tendency shown in Thomson's "Heredity" and other recent handbooks is to deny telegony altogether and to treat the alleged cases as ordinary instances of reversion. In Morgan's "Experimental Zoology" telegony is dismissed as "another breeder's myth," and is used as an illustration of the "credulity of

men who have not been trained as to the value of evidence."

It is curious that this zeal for evidence allowed the fact to be overlooked that Darwin knew of three striped colts following quagga hybrids, instead of only one. This oversight may be partly responsible for the verdict reached in Professor Morgan's discussion of the supposed single case: "There was, then, merely a coincidence, and not a causal connection."

The additional evidence collected by Ewart has bearing upon the nature of the facts that have been grouped under telegony, but it does not explain the occurrence of such phenomena as sequels of hybridization. To reckon the striped colts as examples of reversion affords no proper warrant for denying any connection with the fact that the mares had previously borne quagga colts, or for assuming that such reversions are without scientific interest or practical importance. To know that characters of remote ancestors are likely to return to expression in progeny that follow hybrids may be quite as significant, from the standpoint of heredity, as the idea of long-range transmission from the male parent of the hybrid.

Before pronouncing telegony a myth, a further possibility should be taken into account, that the stripes of a later colt may be induced by the previous contact with the quagga, not through any form of transmission or "infection" with character-units or primordia from the quagga, but by giving a stronger tendency to expression to a primitive characteristic already included in latent form in the reproductive cells of the female. In his hybrids between zebras and horses Ewart found that the stripes were not like those of the striped parent, but of a much more complex pattern, indicating that a primitive character of some remote ancestor came into expression, instead of a character directly transmitted from the zebra. Ewart does not use his evidence to prove that striped colts following hybrids are mere coincidences, but to show that the theory of long-range transmission from the male parent is unnecessary.²

¹ "The Variation of Animals and Plants under Domestication," Chapter XI.

² Ewart, J. C., "The Pencyuk Experiments," 1899.