

## SCIENCE:

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Attention is called to the "Wants" column. All are invited to use it in soliciting information or seeking new positions. The name and address of applicants should be given in full, so that answers will go direct to them. The "Exchange" column is likewise open.

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## NEWS FROM CLARK UNIVERSITY.

A ONE-YEAR'S course in the history and principles of education will begin in October next at Clark University, and continue till June, 1891. This course will be given by the president of the university, Dr. G. Stanley Hall, and by Dr. William H. Burnham, doctent in education, and will be divided as follows: I. General history of educational ideas and institutions in antiquity. II. General history of educational ideas and institutions during the middle ages and down to the early decades of the present century. III. Contemporary educational institutions. A good part of the year will be spent in this field, which will be treated as follows: The educational system of Germany will first be considered, and each class of institution from the kindergarten to the university will be described, including legislation, administration, financial methods, supervision, buildings, curricula, training, testing and examination of teachers, methods of instruction in the leading subjects, educational literature, brief biographies, etc.; French educational institutions will then be described in the same way; and then will follow Italian, Scandinavian, Russian, British, and American educational institutions. While the presentation of the systems will necessarily be more or less historical, the chief object will be to describe these systems as they exist to-day. While considering elementary work and grades, much stress will be given to intermediate and higher education, including such topics as the constitution of universities, with historical sketches and descriptions of typical institutions, both European and American;

the relations of government to science in the various countries; learned societies, associations, and academies; professional and technical instruction; examinations; etc. IV. Philosophical conclusions and practical applications of this survey; general views concerning the end, direction, and methods of education, with reference to the needs and problems of our own country.

In preparation for these courses, Dr. Burnham, a Harvard graduate, who gave his chief attention to philosophical courses, taught successfully in a normal school, and studied psychology and education three years in Baltimore, taking the degree of doctor of philosophy there in 1888, was some time since sent to Europe by Clark University, to study special problems and institutions in several European countries. Dr. Hall, who represented this department at the Johns Hopkins University, spent last year in visiting educational institutions and collecting literature and other material for this course in every country in Europe except Portugal. A carefully chosen collection of educational literature covering the topics of this course will be placed at the disposal of students, and their reading will be individually directed in it. The methods will consist of lectures, general and individual conferences, special lines of reading, etc. Certificates of attendance will be given to those who follow the entire course, and certificates of proficiency to those who desire to pass an examination at the end of the year. Should the attendance warrant it, and should it be desired, pedagogical excursions may be conducted to institutions in Worcester and other neighboring cities. In addition to these strictly educational courses, the philosophical and psychological courses may, by special arrangement, be attended by students of education. This course is intended for those who desire to qualify themselves for professors of education in colleges or normal schools, and for superintendents, principals, and others who desire to make a specialty of education. For further information address the clerk of the university, Worcester, Mass.

## PRESENT CONDITION OF SILK-CULTURE IN FRANCE.

WITH reference to the recent demand of certain delegates representing the agricultural, and especially the silk-growing, industry of southern France for a protective duty upon imported cocoons and raw silks, with certain restrictions upon silk-manufacturers in respect to "loading" their goods in the process of dyeing, the United States consul at Marseilles gives a sketch of the history and present condition of this branch of French industry.

The cultivation of the mulberry-tree for the rearing of silk-worms began in the south of France early in the seventeenth century, but it was not until a hundred and fifty years later that the industry became important or largely profitable. By the year 1780 the annual product of cocoons had risen to 6,600,000 kilograms, which were then worth about 2s. a kilogram. This was a lucrative result in those frugal times; and the business continued to flourish until 1853, when the crop reached 26,000,000 kilograms at about 3s. 9d. the kilogram, thus adding a sum of about £4,700,000 to the wealth of the rural classes. The country was admirably adapted to the growth of the mulberry-leaf; the warm, dry climate of Provence and Comtat Venaissin was favorable for the worm; the labor of raising the cocoons and reeling them could be performed by women, aided to some extent by children and aged people, thus entailing scarcely any increase in the expenses of the farm; and the permanent prosperity of the industry seemed for a time assured.

Then a series of disasters began. The peasants, in their eagerness to raise every possible silk-worm, had for years overstocked their premises, and in the crowded, ill-ventilated, and often dirty and neglected *magnaneries* the worms degenerated from year to year until they became a prey to several new and destructive diseases. The most serious of these were the *muscadine*, which was thought to have been imported with silk-worm eggs from Turkey; and the *pebrine*, a malignant cryptogamous infection, generated by the conditions above cited, and which is commonly cited in France as *la maladie*. The *muscadine* caused a loss of £800,000 in a single season. In thousands of cases every silk-worm in a farmhouse or breeding-establishment perished; and this disease