ZOOLOGY (INCLUDING NEUROLOGY).

Chicago.

Professors Whitman, Lillie, Dr. Child: Zoological problems, research (1 + *18*).

Professor Davenport: Experimental and statistical zoology (8).

Professors Whitman, Davenport, Lillie, Dr. Child: Seminar in zoology (2).

Professor Donaldson: The growth of the brain and its physical characters as related to intelligence (2 + *4*, 1 qr.); Seminar in neurology (2); Research, the study of neurological problems (8).

Professor Donaldson, Dr. Hardesty: The architecture of the central nervous system (2 + *4*, 1 qr.); Gross and microscopic anatomy of the human central nervous system and sense organs (3 + *6*, 1 qr.).

Dr. Hardesty: The architecture of the central nervous system (2 + *10*, 6 wks.); Comparative histology of the central nervous system and sense organs (2 + *9*).

Columbia.

Professor Wilson: Comparative embryology (1 + lab.); Cellular biology (*3*).

Professor Osborn: Mammals, living and fossil (6).

Professors Wilson, Osborn: Comparative zoology, advanced (*10*).

Professor Dean: Classification and comparative anatomy of the vertebrates (1 + *2*); Embryology of fishes (1); Embryology of vertebrates ($\frac{1}{2}$ + 1).

Professor Crampton: Experimental embryology ($\frac{1}{2}$).

Dr. Calkins: General zoology of invertebrates, advanced ($1\frac{1}{2}$ + *3*); The protozoa ($\frac{1}{2}$ + *1*); Sanitary biology ($1\frac{1}{2}$).

Dr. Strong: Comparative neurology (1 + *4*); The human brain and spinal cord (1 + *4*).

Dr. McGregor: Mammalian dissection.

Professor Osborn, Dr. McGregor: Readings and conferences in Gegenbaur's *Vergleichende Anatomie* (1).

————————: Practical histology; Practical embryology; Seminar; Journal Club.

Cornell.

Professor Wilder, Dr. Stroud, Mr. Read: Research in vertebrate zoology and neurology (daily); Department conference.

Professor Comstock: Research in entomology (daily); Morphology and development of insects (2).

Professor Gage: Research in histology and embryology (*8*); Advanced microscopy ($2\frac{1}{2}$); Seminar in microscopy, histology and embryology.

Harvard.

Professor Mark: Anatomy and development of vertebrates and invertebrates (research).

Professor Mark, Dr. Rand: Microscopical anatomy ($1\frac{1}{2}$); Embryology of vertebrates ($1\frac{1}{2}$).

Professor Jackson: Fossil invertebrates ($1\frac{1}{2}$); Fossil invertebrates, special groups ($1\frac{1}{2}$).

Professor Parker: Introduction to the study of the nervous system ($1\frac{1}{2}$); The nervous system and its terminal organs ($1\frac{1}{2}$).

Dr. Rand, Mr. Carpenter: Comparative anatomy of vertebrates (3).

Dr. Castle: Experimental morphology, phylogenesis (2).

Johns Hopkins.

Professor Brooks, Drs. Andrews, Johnson: Advanced laboratory work (daily); Journal club (1); Seminar (1).

Pennsylvania.

Professor Jayne: Human anatomy (research); Mammalian osteology (research).

Professors Conklin, Montgomery, Dr. Calvert: Comparative anatomy and embryology of the invertebrata (1 + *5*); Zoological seminar (1).

Dr. Moore: Recent and fossil vertebrata (2 + *2*).

Yale.

Professor Verrill: Zoology, comparative anatomy, morphology, histology, systematic zoology.

Professor Smith, Dr. Coe: Elementary anatomy and histology (2); Comparative anatomy and general biology (3); Advanced comparative anatomy and general biology (daily).

Professor Ferris: Comparative morphology of the vertebrate brain (1).

Dr. Coe: Cytology and general embryology (2).

GEO. B. GERMANN.

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*PRIZE-SUBJECTS IN APPLIED SCIENCE.**

THE program of subjects for which prizes will be awarded by the Société industrielle de Mulhouse next year has been issued, and copies can be obtained upon application to the secretary of the Society. In general chemistry, medals will be awarded for the best memoirs or works on the theory of the manufacture of alizarin reds; the synthesis of the coloring matters of cochineal; theoretical and practical study of the carmine of cochineal; study of the coloring matter of cotton; the composition of aniline blacks; physical and chemical modifications which occur when cotton fiber is transformed into oxycellulose; action of chlorine and its oxygen compounds upon wool; constitution of coloring matters employed in linen fabrics; synthesis of a natural coloring matter used in industries; and theory of the natural formation of an organic substance and preparation of the substance by synthesis.

In connection with dyeing, medals will be awarded for the best works presented on the following subjects: A new mordant which admits of practical use; metallic solutions which give up their bases to textile fibers, and the conditions in which they are most effective; iron mordants and the part they play in dyeing according to their condition of oxidation and hydration; an aniline black which will not de-

* From *Nature*.

teriorate in the presence of other colors or affect these colors, especially those of albumin; a soluble black for dyeing, which will resist the action of light and soap as much as aniline black; a light blue cheap enough to be used to dye wools and not affected by boiling or by light; a blue similar to ultramarine which can be fixed upon cotton by a chemical process; a pure yellow which behaves like alizarin as regards its dyeing properties; a lake-red; a purple; a coloring matter to supersede logwood in its various applications; an assistant especially applicable to wool, capable of being cleared by simple washing, and composed of substances other than tin salts, hydrosulphites, sulphites, and bisulphites; new method of fixing aniline colors; a means of making colors resist the action of soap or of prolonged boiling; a means of producing the sheen of gold and silver upon materials by metallic powders; a manual containing tables showing the densities of as many inorganic and organic compounds as possible, in the crystallized state and in cold saturated solution; the synthesis of a substance having the essential properties of Senegal gum; a substance to supersede egg-white in the dyeing of linen; a colorless blood albumin which can be used instead of egg-white; a manual on the analysis of compounds employed in fabric printing and in dyeing; an indelible ink for marking cotton and similar materials; a practical method of removing grease spots from materials; a memoir on the use of resins in bleaching cotton fiber; a memoir on the bleaching and dyeing of various kinds of cotton; also memoirs dealing similarly with wool and silk; use of hydrogen peroxide for bleaching; improvements in the bleaching of wool and silk; and manuals on the bleaching of cotton, wool, silk, hemp and other fibers.

In connection with fabric printing, medals are offered for an alloy or other substance which has both the elasticity and durability of steel and also the property of not causing any chemical action in the presence of acid colors and colors containing certain metallic salts; a new cylinder machine capable of printing at least eight colors at once; and an application of electricity to bleaching, dyeing or fabric printing.

Among the prize subjects in mechanical arts are: A means of recording by a graphical method the work done by steam engines in a given period (ordinary indicator diagrams do not fulfil the conditions); memoir on the spinning of combed wool; on the force required to start spinning machines; a motor for driving machines used in printing fabrics.

In electricity medals will be awarded for an electric motor the power and driving rate of which can be easily varied; a memoir on the comparative cost of electricity and gas for lighting a town having a population of at least 30,000; and comparative costs of electricity, gas, acetylene and water-gas for lighting an industrial establishment.

Money prizes as well as medals are awarded for some of the subjects, and all the competitions are open to every one, irrespective of nationality. The memoirs, designs or models submitted for the awards should be sent to the president of the Société industrielle de Mulhouse before February 15, 1902.

SCIENTIFIC NOTES AND NEWS.

A ROYAL commission has been appointed in Great Britain to study the relation of bovine and human tuberculosis, consisting of Sir Michael Foster, Dr. Sims Woodhead, Dr. Harris Cox Martin, Professor J. McFadyean and Professor R. W. Boyce.

DR. W J MCGEE and Dr. W. H. Holmes were at St. Louis recently to advise in regard to the exhibit of anthropology and ethnology at the exposition in 1903. Very comprehensive exhibits were recommended, of which we hope to give later a detailed account.

PROFESSOR WILLIS L. MOORE, chief of the Weather Bureau, visited the Yellowstone Park last week, with a view to studying the desirability of establishing there a weather station.

MR. H. D. HUBBARD, private secretary to President Harper, of the University of Chicago, has been appointed, as the result of a civil service examination, secretary of the National Bureau of Standards, at a salary of $2,000 a year.

THE Dutch Academy of Sciences at Harlem has elected to membership H. Haga, professor