early stages of humanity. The discussion is kept up by the French society, and most elaborate measurements are reported. M. Dally is not quite satisfied with the methods, however, and makes the following remarks. It is very wrong to confound things different *inter se* under one abstract term, and to study them as a natural group. Assassins, murderers, criminals, and even the assassinated, constitute juridical categories; but surely they are not philosophic. Highwaymen, ravishers, the jealous, monomaniacs, avengers, nihilists, etc., may be assassins; yet they have nothing in common, except that their actions lead to the same result. The organic conditions which lead to murder are quite different in each case. Again: every one knows that nothing is more rare than a perfectly symmetrical skull. Before establishing the proportions of anomalous crania among criminals, it is necessary to fix the standard among the virtuous. In fact, all men who have heavy lower jaws are not necessarily assassins; nor can we assume that all crime is evidence of atavism, and argue, hence, that in the anatomy of murderers we have the portraits of our prehistoric ancestors. — (*Bull. soc. anthrop. Paris*, v. 778.) J. W. P. [212

Easter Island. — Commander Bouverie F. Clark, in June last, visited the Easter Island, landing at the village of Malaveri, where the vessel was boarded by Mr. Alexander Salmon, agent of the Maison Brander of Tahiti, who purchased the property of the missionaries four years ago. The latter then left for the Gambier Archipelago, taking three hundred natives with them. The natives now number a hundred and fifty, and are decreasing. About five hundred were shipped to Tahiti eight years ago, to work on the plantations of the Maison Brander. Among the remaining people are no traces of the missionary work. They are divided into several small clans; and their chief quarrels are about the first eggs of the 'wide-awake' every year from Needle rock. The myth or tradition of their arrival is given by Commander Clark, who also speaks hopefully of the fertility of the island, as well as its value as a provision station. — (*Proc. roy. geogr. soc.*, v. 40.) J. W. P. [213

INTELLIGENCE FROM AMERICAN SCIENTIFIC STATIONS.

PUBLIC AND PRIVATE INSTITUTIONS.

University of Michigan.

Central laboratory for microscopy and general histology. — Instruction is given in this laboratory in the following subjects. 1. Microscopical technics, or the science and art of microscopy, comprising, (*a*) the theory and construction of the instrument and its various accessories; (*b*) the methods of determining magnifications; (*c*) the methods of microscopic drawing, microscopic photography, and microscopic projections; (*d*) the preparation of objects of various classes. 2. Human histology. 3. Comparative histology. 4. Vegetable histology. 5. Dental histology. 6. Pathological anatomy. 7. Completion of microscopic study in such other subjects as may be desired by professors in charge.

The following is the plan pursued in the principal divisions: —

Normal human histology. — This course consists of thirty lectures in the amphitheatre on the use of the microscope and on histology. In laboratory work the student is taught the manipulation of the instrument, use of accessories, etc. Then follows the study of such subjects as blood, epithelium, bone, tooth, cartilage, elastic tissue, muscle, kidney, stomach, liver, intestine, brain, spinal cord, and various miscellaneous subjects, as the oesophagus, tongue, skin, etc. The students are given instruction in mounting, so that each specimen is preserved as it is studied. The average number of mounts per student is about twenty. Each student is required to have at least twelve mounts, and some ambitious ones mount as high as fifty or sixty. Over six thousand mounts are carried away each year by students in this department. The object of the course is, first, to make the student better acquainted with the structure of tissues, and, second, that he may become familiar enough with the microscope and its manipulations to work to advantage without the aid of an instructor.

Vegetable histology. — The first course consists of work in structural botany for a term of twenty weeks. Special attention is given to the correct representation of microscopic objects on paper. Sixty accurate drawings of the various structures examined during the course are required of each student, the specimens being prepared by the students themselves. Vegetable protoplasm is studied with the special view of ascertaining the effects of the various reagents employed in general laboratory work. Then follow lessons on the vegetable cells, diatoms, and other miscellaneous subjects.

Course two in vegetable histology consists of work in pharmaceutical botany, three forenoons of laboratory work each week for twenty weeks. At the close of the course each student chooses a particular drug, studies it thoroughly, and presents the results of his labors in the form of a thesis.

Advanced normal and pathological histology. — Any student who has completed the primary course in the histological laboratory, or who has performed an equivalent amount of work in some other institution, can enter the class for advanced work. The first work here is in testing objectives with test-plates and diatoms, and in becoming more familiar with a few useful accessories. The art of injecting is then taken up, and the frog and cat are experimented upon, as well as individual organs from larger animals. Each student then chooses some particular organ or tissue, and prepares it in as many ways as possible for study. He thus becomes

familiar with the various methods of hardening, cutting, and staining. Pathological structures are now carefully studied. This includes the study of inflammation and its results, the study of diseased organs and tissues, and of the non-inflammatory new formations.

Embryology. — A study of the development of the chick, including microscopic sections of the same.

Urinalysis. — A course of six weeks in the chemical analysis of the urine, including the use of the microscope in determining the character of the various deposits and crystals.

NOTES AND NEWS.

Dr. H. Newell Martin, professor of biology in Johns Hopkins university, has been appointed Croonian lecturer of the Royal society of London for the current year. The Croonian lecture was founded by Lady Sadlier, in fulfilment of a plan of her former husband, Dr. Croone, one of the founders and the first registrar of the Royal society. By her will, made in 1701, she devised "one-fifth of the clear rent of the King's-Head Tavern, in or near Old Fish Street, London, at the corner of Lambeth Hill, to be vested in the Royal society, for the support of a lecture and illustrative experiment on local motion." For many years past there has been no formal delivery of the lecture. The council of the Royal society select from the papers presented to them during the preceding twelve months that one dealing with animal motion which they think most noteworthy, and publish it as the Croonian lecture, sending to the author the sum derived from Lady Sadlier's bequest. The amount of money is trivial, but the appointment as Croonian lecturer is a highly prized distinction. The paper by Professor Martin, which is to be printed as the Croonian lecture for 1883, is on the Effect of changes of temperature on the beat of the heart. It is interesting to note that the first Croonian lecture, delivered by Dr. Stuart in 1738, was on the Motion of the heart.

— *Nature* of Aug. 2 prints the following telegram from the Swedish party which wintered at Spitzbergen, and was last heard from in October. "Cape Thordsen, July 4, 1883. This message will be forwarded to-morrow to Capt. Startschin, with the boat fetching our first mail this year. The wintering of the expedition has in every respect been attended with success, particularly as the scientific researches have throughout been carried on exactly in accordance with the regulations formulated by the International polar commission. Hydrographical and magnetic studies have also been pursued on the ice in the Ice Fjord, as well as parallax measurements of clouds, and observations as to the temperature of the air, the snow, and the earth. The winter has, on the whole, been mild; the greatest cold occurring on Jan. 2, when the thermometer registered 35.5° C. below freezing-point. Storms have been few. Since September last the following buildings have been erected: a hut on a mountain at an elevation of 270 metres, containing the anemometer and the wind-fan, which were read by a self-registering electrical apparatus; two astronomical observatories; another magnetic hut; a bath-house, a forge, and a wood storehouse. The dwelling-house and working-room have also been enlarged. The following game was shot during the winter: 61 ptarmigans, 9 reindeer, 18 wild geese, 20 foxes, and some wild fowl. With continuous labor, plenty of food and drink, and frequent baths, the members of the expedition have throughout enjoyed excellent health. Descriptions of the nature of our labor and life here during the wintering will follow."

— The new biological laboratory of the Johns Hopkins university, which will be opened next September, has been especially constructed with reference to providing opportunity for advanced work in experimental physiology. It contains two large rooms for general advanced work in animal physiology, in addition to others specially designed for work with the spectroscope, with the myograph, for electro-physiological researches, and for physiological chemistry. It also contains a special room constructed for advanced histological work, and well supplied with apparatus and reagents, a room for microphotography, and rooms for advanced work in animal morphology.

Prof. C. H. F. Peters of Clinton, N.Y., announces to Harvard college observatory the discovery of a new planet by him on the night of Aug. 12. Its position at time of discovery was as follows: Aug. 12, 13 hours, 49 minutes, 27 seconds, Clinton mean time; right ascension, 21 hours, 20 minutes, 48.17 seconds; declination, south, 12 degrees, 29 minutes, 8.2 seconds. The daily motion of the object is — 36 seconds in right ascension, and in declination 20 minutes and 50 seconds south. It is unusually bright for an asteroid, being of the ninth magnitude.

— The *Nation* for Aug. 2 calls attention to a very interesting feature of the table of ages (table XLII.) in the compendium of the tenth census. The table exhibits an astonishing preponderance of persons whose age is a 'round number,' i.e., a multiple of five or ten. One of the instances mentioned is, that while, according to the table, there are 1,094,324 persons at the age of 30, there are only 621,852 persons of 29 years, and only 492,530 persons of 31 years. There is a less powerful but still very marked and constant attraction to even numbers as compared with odd: for example, 42 claims 458,949, while 43 is content with 384,259; 47 is credited with 349,512, but 48 with 400,549. These are from the table of aggregates for the United States. The peculiarities are, of course, much more strongly marked in the columns referring to the classes and localities where there is most ignorance. Thus the number of the colored females in Mississippi who are put down as 30 years of age is 10,619, while the years immediately preceding and following are given only 2,253 and 1,236 respectively.

The writer of the interesting note in the *Nation* attributes the phenomenon to conjectural statements