

KANSAS CITY UNIVERSITY has received about \$10,000 by the will of the late John Brown, of Chilhowee.

A NEW machinery building is under construction for the mechanical department of the University of Tennessee. The University lights its own buildings and the increased demand for light will be met by a direct connected generating set placed in the new machinery building. The machine shops will also be driven by electricity from the same plant, doing away with all belting and line shafting. The new building will also contain an electrical testing room for such tests as cannot be made at the laboratories of the electrical engineering department. The old machine shop is being rebuilt to furnish an additional dormitory.

THE Commissioners for the Exhibition of 1851 have made their appointments to science research scholarships for the year 1898 on the recommendation of the authorities of the respective universities and colleges. The scholarships are of the value of £150 a year, and are ordinarily tenable for two years (subject to a satisfactory report at the end of the first year) in any university at home or abroad, or in some other institution approved of by the Commissioners. The scholars are to devote themselves exclusively to study and research in some branch of science the extension of which is important to the industries of the country. A limited number of the scholarships are renewed for a third year where it appears that the renewal is likely to result in work of scientific importance. Five scholars have been appointed for a third year, seventeen have been appointed for a second year, and thirteen new appointments have been made. Three of the scholars will work in the United States, one at Harvard, one at Cornell and one at Columbia.

A BILL has been introduced into the British House of Commons forbidding anyone to attach to his name a degree obtained abroad, without giving the source from which it has been received.

FROM official statistics published by the Minister of Public Instruction and summarized in the *British Medical Journal* it appears that on January 15, 1898, the total number of stu-

dents in the faculties and schools of superior instruction in France was 28,782. Of this number 27,911 were men, 26,419 being French, and 1,492 foreigners; and 871 were women, of whom 579 were French and 292 foreign. The total number of students in the several faculties and schools of medicine was 8,064, of whom 399 were women; of the whole number 734 male and 168 female students were foreigners. The 'extra-legal' schools of medicine outside the universities had 949 students, of whom 70 were women; while the medical schools at Algiers had 763, of whom 24 were women. There are in Paris 11,647 students, of whom 3,971 are students of medicine. Next to Paris in respect of student population comes Lyons, with 2,335, of whom 1,106, including 33 women, belong to the medical faculty. Bordeaux occupies the third place, with 2,144, of whom 737 are students of medicine. Toulouse, Montpellier, Lille, Rennes and Nancy have each over 1,000 students.

DR. JOHN C. THRESH has been appointed lecturer on public health at the London Hospital Medical College new laboratories, and a public health museum will be opened at the College at the beginning of the next session.

DISCUSSION AND CORRESPONDENCE.

AN AMERICAN BLUE GROTTTO.

MANY of the beautiful phenomena seen at the celebrated Blue Grotto of the island of Capri are reproduced on a small scale in a cavern at Lake Minnewaska, New York. This lake is situated on the Shawangunk range of mountains at an elevation of about 1,700 feet; it lies in a basin, excavated in glacial times, about half a mile long and less than a quarter in width, and of a depth reaching seventy feet. The rock on all sides is a white quartzite known as Shawangunk grit, which rests upon shale, but no outcrop of the latter is visible at the lake. The quartzite is compact to granular and contains in places pebbles of white quartz; it is very free from feldspathic admixture, so that it yields to the water very little soluble matter. Bare cliffs rising to the height of 150 feet bound the east side of the lake, while the western banks

are well wooded. The cliffs are vertical and fringed at their base by the usual talus, which, however, is made up of blocks of unusual size. The cavern is formed by several huge rocks overhanging the water so as to form a comparatively dark hole, and the space between the under side of the sloping rocks and the water varies from about two feet to not more than two inches. The cavern faces the southwest; it is very irregular in shape, and at one point the roof and walls reverberate in response to a deep bass note. The water just at the entrance to the cavern is 33 feet deep, and two or three feet away 40 feet; it is very transparent at considerable depths. As the rocks overhang so close to the water the optical effects can only be seen by a swimmer, and it was while swimming along the shore that I discovered the American Blue Grotto three years ago. As one approaches the mouth of the cavern the bluish color of the water is noticeable, but the beautiful effects are best seen by entering the opening and looking outwards towards the light. The water varies in color from Nile green through turquoise blue and sky blue to deep indigo blue, and in all these shades exhibits the silvery appearance, when agitated, characteristic of the grotto at Capri. A body immersed in the water has a beautiful silvery sheen, similar to the reflection of moonlight. The water has these colors at all hours, but they are strongest when the sun is in the zenith; late in the afternoon the slanting rays of the sun enter the opening and light up the cavern, greatly diminishing the optical effects.

The water retains the characteristic color (but without the silvery sheen) on cloudy days, and even during rain, being especially strong when fleecy white clouds bar direct sunlight. The relation between the different hues, green and blue, to the aspects of the sky, whether clear or overcast, is not evident.

Another pleasing phenomenon must be mentioned. Just below the water line, where the rocky sides are lapped by the waves, the white quartzite exhibits a brilliant siskin-green hue; this bright color is limited to a space about three or four inches below the level of the lake and to certain walls of the cavern. The bare arm immersed in the water partakes of the

green color when the light is reflected at one angle, and of the silvery blue color at another angle. The interior size of the cavern is not easily given, but the face of the overhanging rocks measures about 40 feet and they project about 15 to 20 feet, and it is surprising that so small a cavern can produce such a variety of fine effects.

The writer would like to learn, through the columns of SCIENCE, whether similar blue grottos are common at other American lakes.

H. CARRINGTON BOLTON.

LAKE MINNEWASKA, August, 1898.

'THE DELUSION OF ATAVISM.'

DR. BRINTON'S recent remarks on the 'Delusion of Atavism' recall Dr. Thomas Dwight's paper on the 'Range and Significance of Variation in the Human Skeleton,' a paper which may be read with much profit by those who are bound to find some reversional character in every anatomical abnormality. As Dr. Dwight says, "if all animal resemblances are reversions, the primitive ancestor must have been a very curiosity shop of peculiarities."

F. A. L.

SCIENTIFIC LITERATURE.

Technical Mycology. By DR. FRANZ LAFAR.

With an introduction by DR. E. CHR. HANSEN. Translated by CHAS. T. C. SALTER. Vol. I., Schizomycetic Fermentation. London, Chas. Griffin & Co., Ltd.; Philadelphia, J. B. Lippincott Co. 1898. Pp. 405, with 1 plate and 90 figures.

The appearance last year of the first volume of Dr. Lafar's *Technische Mykologie* relating to fermentations induced by Schizomycetes marks the gradual development of bacteriological science along other than medical lines. The interest that is attached to the study of these micro-organisms in other than their pathological relations is rapidly increasing, and we may hope that such works as these will stimulate investigation and study in a very promising field of research. The translation of this work into English by Salter will unquestionably be welcomed.

The scope of the work is the utilization of micro-organisms in the arts and manufactures.