

on the list with 45 gallons. In none of the large towns in the South of France does the consumption fall below 30 gallons, but in seven large town in the North (Lille, Boulogne-sur-Mer, Dunkirk, Caen, Calais, Roubaix and Turcoing) it averages only six gallons. Another table gives the consumption of alcohol, and here Rouen, Cherbourg and Le Havre head the list with an annual total of nearly four gallons per head of the population, or more than double the quantity consumed in Paris.

#### UNIVERSITY AND EDUCATIONAL NEWS.

THE late George M. Pullman has left \$1,200,000 for the erection and endowment of a manual training school in the town of Pullman.

THE Ohio Wesleyan University has received a bequest of \$35,000 from the late Stephen Watson for the endowment of a professorship.

THE West Virginia University has followed the example of the University of Chicago, and will hereafter hold continuous session, the academic session being divided into four quarters of twelve weeks each with an intervening vacation of one week.

AN increase of forty-two students over last year is reported at Harvard College. The registration is as follows: Seniors, 337; juniors, 383; sophomores, 443; freshmen, 470; specials, 163; total, 1,796.

DR. CHARLES W. DABNEY, recently Assistant Secretary of Agriculture, and special agent in charge of scientific and statistical investigations, Washington, D. C., has been elected President of the University of Tennessee.

DR. ARTHUR ALLIN, of Ohio University, has been appointed professor of psychology and pedagogy in the University of Colorado.

DR. A. W. SHEEN has been appointed demonstrator in anatomy and Mr. S. C. Mahalanobis demonstrator of physiology in the medical department of University College of South Wales, Monmouthshire.

J. GRAHAM KERR, B.A., scholar of Christ's College, Cambridge, has been appointed demonstrator in animal morphology for a period of five years from October 1, 1897, in place of Mr. E. W. MacBride, who had resigned in order to

accept the professorship of zoology in McGill University.

THE electors to the professorship of pathology, Cambridge University, will meet for the purpose of proceeding to the election of a professor on Saturday, November 6th. It is expected that Dr. Kanthack will be elected.

DR. HERMANN MUNK has been promoted to a full professorship of physiology at the University of Berlin. Dr. Hettner, of Leipzig, has been appointed assistant professor of geography in the University at Tübingen, and Dr. Max Busch assistant professor of analytical chemistry and chemical technology in the University at Erlangen.

THE annual report of President Schurman, of Cornell University, is the first of these important university publications to reach us. It opens with the minute adopted by the Board of Trustees on the death of their chairman, Mr. Henry W. Sage, who had made gifts to the University aggregating \$1,175,000, and had given his services in many ways. The report reviews changes in the faculty, including some account of the work of Professors Dennis (analytical chemistry), Jacoby (civil engineering), Barr (mechanical engineering), and Trevor (chemistry), who were promoted to full professorships during the year. There were in the University 1,808 students, the number being practically the same as in 1893-4, before the requirements for admission were advanced. As Cornell is sometimes said to be developing into a great technological school rather than into a university it is interesting to note that in this period there has been a decrease of about 100 students in the departments of applied science and an increase of about 100 students in the academic departments. These numbered 593 students and there were 161 graduate students. President Schurman reviews the condition and work of the different departments and colleges of the University, the library, the grounds and the financial situation. The library now contains nearly 200,000 bound volumes; 10,000 have been added during the year. The financial statement is very brief. Except money paid from the Fayerweather estate, the University has received no bequests

and but three small gifts. President Schurman's report, extending to 57 pages, is followed by appendices filling 117 pages, which give reports from other executive officers, the courses and attendance, and the publications by the University officers.

#### DISCUSSION AND CORRESPONDENCE.

##### ORGANIC SELECTION.

TO THE EDITOR OF SCIENCE: It seems to me that Professor Poulton's conclusion of the very interesting discussion on 'Organic Selection,' published in SCIENCE, October 15th, involves a serious confusion of ideas. He advocates the theory that natural selection confers on organisms the power of reacting adaptively to external forces. It is easy to conceive the effect of natural selection on an organism, assuming that the power of adaptation pre-exists; but it is incomprehensible that any amount of advantageous crossing should give the power of adaptation itself to an organism that does not already have it. Professor Poulton's arguments against that power being a property of a living organism are, I think, inconclusive. He dwells on the remarkable fact that physical forces awake responses which have to do with organic relations; but what of it? This shows only how powerful the tendency is. It is clear that any substance, animate or inanimate, reacts according to its own nature. If you drop a lighted match on to a pile of shavings, or on gunpowder, or into water, or on to a dog, certain pretty definite phenomena will occur in each case; yet the stimulus is the same; the recipient only is different. In the three earlier cases the results will be physical; in the case of the dog we reach the sphere of sensation. If the experiment be performed on a man we involve the moral sphere also, as he will either swear or refrain from swearing.

THOMAS DWIGHT.

ANATOMICAL DEPARTMENT,

HARVARD MEDICAL SCHOOL,

October 20, 1897.

##### A GASOLINE LAUNCH FOR FIELD WORK.

TO THE EDITOR OF SCIENCE: Last winter several papers and magazines, including SCIENCE (Vol. V., No. 119), noted the fact that I

was constructing a gasoline launch for facilitating the study of paleontology and stratigraphic geology at Cornell University. Feeling that the results of this undertaking have been satisfactory in every way, and may be of interest to other investigators and teachers, I take pleasure in furnishing the following notes: First, as to what has been accomplished during the summer with this launch; second, why a naphtha or gasoline launch is preferable to one propelled by steam.

July and August were spent on a long voyage from Ithaca to lower Chesapeake Bay and return, going *via* Erie Canal, Hudson River, Raritan River and Canal, Delaware River, Delaware and Chesapeake Canal, Chesapeake Bay and its many inflowing rivers. The special object of this expedition was to collect large quantities of Eocene and Miocene mollusca from Maryland and Virginia. Four students and myself constituted the party. During September a shorter excursion was made along the Erie Canal to Troy, N. Y., where Archæan, Cambrian, Ordovician, Silurian and Devonian outcrops were visited, either as they were found along the canal or at no great distance to the north or south. During term time the launch is being used for taking classes to fossiliferous outcrops along Cayuga Lake.

Now, a word as to why gasoline is preferable to steam:

1. Cost.—(a) Any well constructed boat 30 feet long, with a 6-horse power gasoline engine will run 800 miles on two barrels of oil; cost about \$9.00 on an average, *i. e.*, a little over a cent a mile; (b) while on government waters no licensed engineer or pilot is required. With a few days' practice, under the direction of one acquainted with the engine, one learns his engine thoroughly and can as easily go up the Potomac to Washington as navigate his own mill-pond.
2. Freedom from government inspection.
3. There being no boiler or fire, the boat is light, roomy and cool.
4. When stopping at an outcrop no gasoline is being used. The whole machine is at a stand-still, dead. But to start up and get under full speed requires less than a minute.

There are many other interesting points that ought to be touched on here, but space will