provide a consulting and reference room for his fellow-countrymen, whether interested in sea or river fisheries, your committee are of opinion that such an educational center is urgently needed, and that the collection in question, although inadequate through neglect, is capable of being brought up to date and of taking the place contemplated for it by the doner. Subject to Mrs. Buckland's life interest, a sum of £5,000 was bequeathed to the Director and Assistant-Director of the South Kensington Museum, in trust for the British nation, to provide lectures on fish culture in connection with this unique series of specimens. Your committee, however, have failed to ascertain what has been done with this money. All that they know is that no such lectureship exists, despite the statement of Mr. George Bompas in his 'Life of Frank Buckland,' published in 1885, that after the death of Mrs. Buckland '£5,000 was given to found a lectureship.'

THE British Institute of Preventive Medicine. says Nature, which was founded with the view of establishing in this country a national home for bacteriological work in all its branches, has made considerable progress towards the achievement of this aim during the past few years. The bacteriological laboratories are now fully organized, the serum therapeutics laboratory is on a firm footing, whilst the application of bacteriology to hygiene are finding full recognition. A further addition has just been made to the departments of the Institute in response to the growing demands of the times. A large laboratory at Chelsea has been assigned to investigation and instruction in technical bacteriology. In this laboratory the agriculturist, the chemist, the brewer and others will find the instruction provided that they individually require for successfully employing the living agents of fermentation. Investigations will also be undertaken, and it is hoped that the laboratory will become a center of useful work, and promote the advancement of a line of research of the greatest importance to the industries of the country. We have had hitherto to rely upon the research work of foreign laboratories in this direction. The laboratory has been named the Hansen laboratory, in recognition of the pioneer work of

the distinguished investigator, and will be under the superintendence of Dr. G. Harris Morris. The formal opening of the British Institute will take place early in the new year, when the public will have an opportunity of inspecting the provisions made for furthering the objects of the Institute. The occasion will also be marked by the issue of a fresh volume of *Transactions* of the Institute.

A ZURICH correspondent writes to the London Times that the attention of the Swiss Federal authorities has lately been drawn to the inadequate administration of the law for the protection of birds of passage and song birds in the Canton of Ticino. In the migration seasons of the year the destruction of these birds increases to such an extent that larks, starlings, finches, the titmouse, etc., are being offered in the public markets of Lugano and Ticino for 1f. the dozen, and are served as a staple article of food even in the cheapest restaurants. The birds in their southward passage are caught by nets, decoys, snares and traps of every kind, and the poverty of the rural Italians in the district serves as an additional inducement for making a hasty profit from the wholesale destruction and capture of singing birds. The evil is notorious and one of long standing, but Swiss law forbids the use of snares. traps, nets and decoy birds, and it is hoped the Federal and Cantonal authorities will be awakened to the necessity of dealing with this systematic neglect of the law. North of the Alps bird life is well protected throughout the Cantons, and here the tameness and abundance of the birds, which so many visitors to Switzerland have noticed, are the best testimony of the value of such protective laws when effectively administered and backed up by public opinion.

## UNIVERSITY AND EDUCATIONAL NEWS.

PRESIDENT DWIGHT has presented his resignation from the Presidency of Yale University on the ground that he has reached his seventieth year. The Corporation has passed a minute urging him to retain the Presidency until the bi-centenial celebration in 1901, but it is said that President Dwight will retire at the end of the present year. At the same meeting of the

Corporation Professor George H. Brush resigned the Directorship of the Sheffield Scientific School, which he has held for twenty-six years, and Dr. R. H. Chittenden, professor of physiological chemistry, was elected Director.

WE understand, though the complications and delays of the law are difficult to follow, that the Supreme Court of the United States has finally rejected the application for a revision of the distribution of the Fayerweather estate, and that the colleges may now make use of the money they have received and will soon be given the balance due them.

The will of the late Dr. Thomas Seton Robertson, which left the greater part of his property to the medical department of the University of Vermont, is being contested by his wife, against whom he had begun two years ago a suit for divorce.

A PSYCHOLOGICAL laboratory is being fitted up at Wells College, and a course in experimental psychology will be given by Miss Washburn, professor of philosophy.

Mr. SWALE VINCENT, has been elected to the Sharpey Physiological Scholarship (£150 per annum), University College, London, which carries with it the post of chief assistant in the physiological laboratory. In the annual election for fellowships in St. Johns College the two fellows chosen were Mr. R. C. Maclaurin, (mathematics) and Mr. V. H. Blackman (botany).

PROFESSORS BEEBE AND PIERPONT have been promoted from assistant to full professors of mathematics in Yale University. In the same University Dr. G. P. Eaton has been appointed assistant in osteology in the Peabody Museum.

AFTER listening to a report on the condition of commercial education at home and abroad the New York Chamber of Commerce has, according to *Bradstreet's*, adopted resolutions advocating measures looking to the improvement of such education in the United States. Premising that the conditions of modern commerce and industry require wider knowledge and higher education on the part of business men, the resolutions declared that the present educational facilities afforded to business men in busi-

ness colleges and similar institutions are inadequate and fail to equip them for competition in the world's commerce. The chamber went on record as favoring the establishment and development of sounder commercial education, both in secondary schools and higher institutions of learning throughout the country. The appointment was directed of a special committee to inquire further into the subject of commercial education, the committee being instructed to lay before the Chamber such plans as might best aid in attaining the end proposed. superintendent suggested the inspection of commercial high schools by representatives of the Chamber, and the submission to such representatives of the courses of study prescribed there.

## DISCUSSION AND CORRESPONDENCE.

MEASUREMENTS OF PRECISION.

To the Editor of Science: A communication in the current number of Science under the caption 'Measurements of Precision' and over the letter 'X' seems to call for some reply. I suppose that it is generally the case that the director of a laboratory assumes responsibility for articles emanating from his laboratory with his sanction—at any rate I am always willing to do so—and this is my reason for taking up this matter in place of Mr. Taylor. Of the general tone of the article in question I prefer to say nothing, leaving it to less interested persons to judge in the matter. I shall content myself with replying to the criticisms and questions of the writer.

The upshot of the communication, freed from the subtle vein of humor which runs through it, is that Mr. Taylor has committed the heinous offence of transcribing from his note-book more figures than the results justify. Perhaps the easiest way to treat this charge is to admit it at once, and thus clear the way. I am not, however, disposed to stop there, but shall consider the statements of 'X' as they are made. The first offence is that Mr. Taylor tabulates his measurements of the diameter of a cylinder twenty centimeters in diameter to 'thousandths and ten-thousandths of a millimeter, thus implying that his measures are made to one part in two millions.' I have always urged upon my