

Important acquisitions by purchase have been made during the year, among which special mention may be made of the Norman collection of marine invertebrates and land and fresh-water shells (first instalment, consisting of over 26,000 specimens); a complete skeleton of an aboriginal Tasmanian, a race now extinct; a specimen of the rare mollusc *Pleurotomaria beyrichii* from Japan, the only living specimen yet discovered; an entire specimen of the rare elasmobranch fish, *Squatina alifera*, from the lithographic stone of Nusplingen; a valuable and unique collection of fossil insect remains formed by the late Rev. P. B. Brodie (4,700 specimens); the Piper collection of fossils from all the strata of the Ledbury Tunnel (1,806 specimens); and a selection from the late Rev. T. T. Lewis's collection of old red sandstone fishes, &c., of historic interest as having been specially studied and referred to by Sir Roderick Murchison. The number of separate presents reported as having been received during the year by the several departments of the Museum was 1,610, as compared with 1,622 in the preceding year. Many of these comprised a large number of individual specimens.

UNIFORMITY IN SIZE OF PAGES OF SCIENTIFIC PUBLICATIONS.

A COMMITTEE of the British Association for the Advancement of Science was appointed in 1896 to secure, if possible, uniformity in the pages of scientific transactions and journals. It has already issued one report on the subject, and now, in a circular letter, strongly recommends that there should be but two standard sizes, octavo or quarto form, with the following dimensions, as issued with pages uncut:

1. *Standard Octavo Size*.—Pages 14 by 22 cm., or 5½ in. by 8¾ in.

From stitching to outer margin of letterpress, 12 cm., or 4¾ in.

Height of letterpress including running headline, 18 cm., or 7 in.

Limits: pages not less than 14 by 21.5 cm., or 5½ in. by 8½ in.

Letterpress not more than 12.5 cm., or 4¾ in., from stitching, and 18.5 cm., or 7¼ in., high.

2. *Standard Quarto Size*.—Pages 22 by 28.5 cm., or 8¾ in. by 11¼ in.; letterpress 18.5 cm., or 7¼ in., from

stitching to outer margin of letterpress, and 21.5 cm., or 8½ in., high.

Limits: pages not less than 21.5 by 28 cm., or 8½ in. by 11 in.

Letterpress not more than 19 cm., or 7½ in., from stitching, and 23 cm., or 9 in., high.

In order to secure satisfactory binding together, the printed area should be small enough not only to escape being cut into, but also to leave a reasonably large margin, and the paper used should be large enough always to reach to the cut edge of a bound volume. Plates should be folded within the standard sizes so as not to be injured when the edges of the book are cut in the binder's press. It is also recommended that every article should always begin at the top of a right-hand page, even if that involves a blank left-hand page, so that a paper can be extracted from a journal without mutilating one or the other.

We fear that these recommendations can scarcely be carried out in the United States. A majority of our leading scientific journals are of a size almost exactly intermediate between the standard octavo and standard quarto forms. The convenience of this size seems to be indicated by the fact that it has been chosen by the committee for the publication of their report

STANDARD MEASURING INSTRUMENTS.

THE Committee of Standards for Instruments of Measure, of the American Chemical Society, consisting of Messrs E. E. Ewell, chairman; Louis A. Fischer, H. P. Talbot, C. E. Linebarger and G. E. Barton, have drawn up a report which has been adopted by the Council. This is as follows:

Your committee, to which you have assigned the duty of making a study of the means by which the American Chemical Society can hasten the adoption of uniform systems of graduation, definite limits of accuracy, and standard methods for using all forms of measuring instruments employed in chemical laboratories, beg to make the following preliminary report:

The committee was promptly organized by correspondence after its members had been notified of their appointment by the proper officer of the Society. After much discussion the com-

mittee decided to take up first the consideration of the proper form, system of graduation, limits of accuracy, manner of labelling, and methods of using glass volumetric apparatus. The committee has made a careful study of the work that has already been done in other countries on the subject, an account of which is given on pp. 527-550 of the Journal of the Society.

Your committee accordingly submits the following recommendations for your consideration:

1. That the American Chemical Society, in a manner consistent with its constitution and by-laws, ask the U. S. Office of Weights and Measures to adopt regulations for the verification of volumetric apparatus which shall be similar in purpose and scope to the regulations of the Kaiserliche Normal-Aichungs-Commission, after due consideration of the criticisms to which the latter have been subjected.

2. That the U. S. Office of Weights and Measures be asked to give special consideration to the question of a standard temperature or temperatures to be adopted for the graduation of volumetric apparatus, and to obtain as far as practicable an expression of opinion from American chemists on this point.

3. That the U. S. Office of Weights and Measures be asked to submit its regulations to the American Chemical Society, or a duly appointed committee thereof, for suggestions before final adoption by that office.

4. That the international kilogram be adopted as the standard of mass.

5. That the liter as defined by the International Committee on Weights and Measures, be adopted; *viz.*, the volume of the mass of a kilogram of pure water at the temperature of maximum density and under a pressure of 760 mm. of mercury.

6. That all density determinations be referred to water at its maximum density and under a pressure of 760 mm. of mercury.

7. That all temperatures be expressed in terms of the hydrogen thermometer of the International Bureau of Weights and Measures.

8. That if any question arise as to the interpretation of the above definitions the decision and standards of the U. S. Office of Standard Weights and Measures shall be accepted by the Society as final.

SCIENTIFIC NOTES AND NEWS.

THE American Association for the Advancement of Science is holding, at Columbus, Ohio, its 48th annual meeting as we go to press. We are able to publish, this week, the address given on Monday by the retiring President of the Association, Professor F. W. Putnam, and the address, before the Section of Physics, of the Vice-President, Dr. Elihu Thomson.

PROFESSOR ROBERT WILHELM EBERHARDT BUNSEN, the great chemist, born at Göttingen, on March 13, 1811, died at Heidelberg, on August 16th.

THE death is announced of Sir Edward Frankland, K.C.B., F.R.S., the eminent chemist. Born in 1825, he was educated in the Royal School of Mines, London, and in German universities under Bunsen and Liebig. He was successively professor of chemistry at Owens College, Manchester; at the Royal Institution, London, and at the Royal School of Mines, London. He was the author of works on chemistry and water analysis, and is perhaps best known for his inquiries into the pollution of rivers and his reports on the water supply of London. He had been President of the Chemical Society and was Honorary Secretary of the Royal Society. His son is Dr. Percy Faraday Frankland, F.R.S., professor of chemistry at Mason College, Birmingham, and a leading authority on bacteriology.

ON August 2d Queen Victoria conferred the honor of knighthood upon Sir William Henry Preece and Sir Michael Foster, Knight Commanders of the Order of the Bath.

THE Neill Prize for 1895-98 has been awarded to Professor J. Cossar Ewart, M.D., F.R.S., by the Royal Society, Edinburgh, for his experiments and investigations bearing on the theory of heredity.

THE Pharmaceutical Society of Great Britain has awarded the Hanbury Gold Medal to Professor Albert Ladenburg, for his work on alkaloids and their derivatives.

THE Alvarenga Prize of the College of Physicians of Philadelphia has been awarded to Dr. Robert L. Randolph, of Baltimore, for his essay entitled 'The Regeneration of the Crystalline Lens: an Experimental Study.'