1867. International meetings are a natural growth from congresses in which specialists of one country or speech are alone represented. Two remarkable examples of these cosmopolitan societies are the *Congrès International d'Archéologie et d'Anthropologie Préhistoriques,* founded at Spezzia in I860, and the *Congrès International des Orientalistes* (1873). Another step towards more com­plete organization was taken when the *Smithsonian Insti­tution* (Washington, U.S.) developed the admirable system of international exchanges of its publications, as well as of other works and specimens, among societies and indi­viduals. The *Institution* has agents in every part of the globe, and entertains relations with all the leading societies in the world. The *International Scientific Bureau,* a pri­vate enterprise, was established at Haarlem by Dr Van Baumhauer to facilitate the sending of parcels among so­cieties and scientific men in Holland. Since 1875 the French ministry of public instruction has organized a distribution of foreign publications among societies in France. In Eng­land local scientific societies are now officially represented at the meetings of the *British Association.* In 1883 rules were framed for the admission of corresponding societies and for the institution of a conference of delegates to hold sittings contemporaneously with the annual meeting of the Association, for the purpose of discussing “propositions bearing on the promotion of more systematic observation and plans of operation, and of greater uniformity in the mode of publishing results,” as well as for the consideration of “matters in which the co-operation of corresponding societies is desired.” A committee was appointed in 1882 at the Montreal meeting of the *American Association for the Advancement of Science* “to confer with committees of foreign associations for the advancement of science with reference to an international convention of scientific associa­tions ; ” and a fund for the purpose has been started.

It has been thought desirable to classify the societies treated of in the present article under the following head­ings, the first of which includes those of the widest scope, dealing with the whole range of natural history, or with archæology and literature as well as science :—I. science generally; II. mathematics; III. astronomy; IV. physics; V. chemistry; VI. geology, mineralogy, and palaeontology ; VII. meteorology ; VIII. microscopy ; IX. botany and horticulture; X. zoology; XI. anthropology ; XII. sociology (embracing economic science, statistics, law, and educa­tion); XIII. medicine, surgery, &c.; XIV. engineering and architecture ; XV. naval and military science ; XVI. agri­culture and trades; XVII. literature, archæology, and history; XVIII. geography.

I. Science generally.

United Kingdom.—First in antiquity and dignity among English societies comes the Royal Society *(q. v.* ) of London, which dates from 1660. In 1683 William Molyneux, the author of *The Case of Ireland Stated,* exerted himself to form a society in Dublin after the pattern of that of London. In consequence of his efforts and labours the *Dublin Philosophical Society* was established in January 1684, with Sir William Petty as first president. The members subsequently acquired a botanic garden, a laboratory, and a museum, and placed themselves in communication with the Royal Society of London. Their meetings after 1686 were few and irregular, and came to an end at the commencement of hostilities between James II. and William III. The society was reorganized in 1693 at Trinity College, Dublin, where meetings took place during several years. On 25th June 1731, chiefly owing to the exertions of Dr S. M. Madden, the *Dublin Society for Improving Husbandry, Manufac­tures, and other Useful Arts* came into existence. In January 1737 they commenced to publish the *Dublin Society's Weekly Observa­tions,* and in 1746 the society was placed on the civil establishment, with an allowance of £500 a year from the Government. A charter of incorporation was granted in 1750, and seven years later the *Royal Dublin Society* for the first time owned a house of its own, and in the following year began the drawing school, which subse­quently did so much for Irish art. Between 1761 and 1767 Govern­ment grants to the amount of £42,000 for promoting national

agriculture and manufactures were distributed by the society, which claims to be the oldest scientific body in the United Kingdom after the Royal Society of London. It has published *Transactions* (1799- 1810) ; and its *Proceedings* (1764-75 ; 1848, &c.) and *Journal* (1858, &c.) are still issued. For the *Royal Irish Academy,* see Academy.

The *Royal Physical Society of Edinburgh* was instituted in 1771, and incorporated in 1788 ; it is exclusively devoted to natural his­tory and the physical sciences. With it have been merged many other societies, such as the *Chirurgo-Medical* in 1796, the *American Physical* in 1796, the *Hibernian Medical* in 1799, the *Chemical* in 1803, the *Natural History* in 1812 (which brought in Brougham and Mackintosh), and the *Didactic* in 1813. It issues *Proceedings* (1858, &c. ). From the *Philosophical Society of Edinburgh* (1739) was de­veloped the *Royal Society of Edinburgh,* whose charter is dated 29th March 1783. It was to comprise a physical and a literary class ; among the members of the latter were Robertson, Hume, Burke, and Reid, and among those of the former Hutton, Black, Playfair, Dugald Stewart, and Watt. The literary division has been much less productive than the other. A second charter was obtained in 1811. The society has published *Transactions* (4to, 1788, &c.) and *Proceedings* (8vo, 1845, &c.).

The *Linnean Society* for the promotion of zoology and botany was founded in 1788 by Dr (afterwards Sir) J. E. Smith, in order to supplement the work of the Royal Society, and obtained a royal charter in 1802. The herbarium and collections of Linnæus, with the founder’s additions, were purchased after his death. It re­moved from Sir Joseph Banks’s old house in Soho Square to Bur­lington House (London) in 1857, and assumed the apartments it now occupies in 1873. It has published *Proceedings* (1849, &c.). The *Journal* (8vo, 1857, &c.) and the *Transactions* (4to, 1791, &c. ) are divided into zoological and botanical sections. The *Society for the Encouragement of Arts, Commerce, and Manufactures* took its origin in 1753 from an academy established in the Strand by the landscape painter William Shipley. Attention was paid to the application of science to practical purposes, a subject passed over by the Royal Society. Exhibitions of pictures by native artists were held, and the first exhibition of the Royal Academy took place in its rooms. A fresh start in a new career was made by the *Society of Arts* in 1847, when it obtained a charter and the presidency of the Prince Consort. The International Exhibition of 1851 sprang from the smaller exhibitions previously held in its rooms. The East Indian section dates from 1869, the foreign and colonial and the chemical sections from 1874. Its organs have been *Transactions* (1783-1849) and the *Journal* (1853, &c. ). Sir Joseph Banks, Count Rumford, and other fellows of the Royal Society started the *Royal Institution* in 1799, when a site was purchased in Albemarle Street for “an establishment in London for diffusing the knowledge of useful mechanical improvements,” to “teach the application of science to the useful purposes of life.” The institution was incorporated in the following year. One of the most important epochs in the history of chemistry must be dated from the establishment of the laboratory where Davy and Faraday pursued their investigations. Belonging to the institution are foundations for professorships in natural philosophy, chemistry, and physiology. Courses of lectures on special subjects are given as well as discourses (once a week) of a more general and literary character. Its *Journal* has been issued since 1802. The *London Institution* was established on a similar basis in 1805 and incorporated in 1807. The building in Finsbury Circus was erected in 1819. The *British Association for the Advancement of Science* was instituted at York on 27th September 1831 in imita­tion of the itinerant scientific parliament held in Germany since 1822 (already referred to), and arose from a proposal by Sir D. Brewster. A meeting is held annually in one of the chief provincial towns of the United Kingdom. The object of the association is to promote science, to direct general attention to scientific matters, and to facilitate intercourse between scientific workers. Abstracts of the proceedings and reports of committees are published in the annual *Report* (1833, &c.). The *Historical Society of Science* (1841) printed a couple of volumes ; and the *Ray Society* (1844), instituted for the printing of original and scarce old works (38 vols, have appeared) in zoology and botany, still flourishes. The *Royal Colonial Institute* was founded in 1868 and incorporated in 1882. It provides a place of meeting for gentlemen connected with the colonies and British India, undertakes investigations into subjects relating to the British empire, has established a museum and library, and gives lectures in its new building in Northumberland Avenue (London). It has published *Proceedings* since 1870. The *Victoria Institute,* or *Philosophical Society of Great Britain,* was founded in 1865 to form a connecting bond between men of science and others engaged in investigating important questions of philosophy and science, more especially those bearing upon the truths revealed in Holy Scripture. Its organ is the *Journal* (1867, &c.). The *Balloon Society* of Great Britain (1880) is not restricted to aero­nautics, but deals with recent discoveries and inventions, and science generally. The foundation in 1821 of the *Society for the Encouragement of the Useful Arts in Scotland,* now usually known as the *Royal Scottish Society of Arts,* for the promotion of the useful