During the conference the members had the privilege of visiting many works and generating stations, and these opportunities were taken advantage of to a large extent. The institution conversazione was held on Thursday evening in the Albert Hall, when a large and representative gathering met for social intercourse.

THE ROYAL SOCIETY CONVERSAZIONE.

MOST of the exhibits of scientific interest at the Royal Society on June 19, on the occasion of the soiree to which ladies as well as gentlemen are invited, were shown at the conversazione on May 8, and have been described already in NATURE (May 16, p. 57). It will be sufficient, therefore, to refer briefly to exhibits not mentioned in the previous article.

Lantern and other demonstrations were given during the evening by Prof. H. A. Miers, Prof. Flinders Petrie, and Mr. Louis Brennan. Prof. Miers showed experiments illustrating the growth of crystals in drops of solution, and indicating that the latter are of two sorts. If a solution be sufficiently strong, crystallisation may be started spontaneously by mere shaking or friction. In such a solution the crystals are apt to grow rapidly in the form of delicate needles and fronds. If the solution be supersaturated, but not strong enough to give birth to crystals in this way, they can only grow if introduced from without (by "inoculation" of the drop), and are apt to grow in symmetrical forms. A solution, as it cools, passes quite suddenly from the one state to the other. Prof. Petrie lectured on houses in ancient Egypt, and Mr. Brennan again showed and described his working model of the Brennan mono-railway.

The subjoined descriptions of the exhibits have been abridged from the official catalogue :—

Mr. A. A. Campbell Swinton: Vacuum tube phenomena. (1) Exhibition of the mechanical effects of kanal rays in causing the rotation of mill-wheels in Crookes tubes. These rays, which are positive, travel in the opposite direction to the negative rays that proceed from the kathode. They can be detected both when they are approaching the kathode, and also, if the latter is perforated, after they have passed through the apertures. (2) Photomicrographs of the bubbles that are developed by sudden heating of portions of the glass walls of Crookes tubes, owing to the occlusion by the glass of the residual gas during prolonged use. (3) Exhibition in the microscope of a special case of the above, in which the sudden heating was occasioned by an electric spark, which has thus impressed its own image on to the glass. The image is entirely made up of minute bubbles, and from its form it is clear that the spark was a positive one.—*Mr. C. E. S. Phillips:* (1) A fibre electroscope. In this electroscope the gold leaf is replaced by a fibre of electrically conductive glass which is delicately hinged so as to move very readily under the influence of a difference of potential. (2) An electroscope charger. The ease with which celluloid may be electrified by friction, together with its poor insulating property, are made use of in this apparatus. A celluloid rod is rubbed at one end by a flannel-lined split brass tube. The charge so produced slowly spreads to the opposite extremity of the rod and is there utilised. Either a positive or negative charge may be obtained with the same instrument. (3) Electrically conductive glass. The composition of this glass is as follows :—sodium silicate, thirty-two parts; borax, eight parts; Powell's flint glass, 1·25 parts. The electrical conductivity is about 500 times as great as that of any other glass, and this material is suitable for the windows of electrostatic instruments as well as for supplying the fibres used in the fibre electroscope.—*Mr. J. Mackenzie Davidson:* Stereoscopic X-ray photographs in a revolving lenticular stereoscope. A single X-ray photograph is a central projection shadow of the object placed between the Crookes tube and the photographic plate, and cannot therefore correctly indicate the real relative position of the parts—but *stereoscopic* X-ray photographs at once give a combined image which shows correctly their relative size and position. This could be observed in the series of transparencies exhibited.—*Mr. A. Kershaw:* A new visual method of measuring the speeds of photographic shutters. This consists principally of a variable-speed revolving disc with radial slits, in conjunction with a stationary illuminated slit.—*Mr. Edward Whymper:* Photographs taken in the Rocky Mountains of Canada and in the Alps.

Mr. William Burton: Pilkington's Lancastrian lustre pottery. The examples illustrate the perfecting of the old lustre process of decoration. By this method metallic vapours of silver and of copper can be driven into pottery glazes at a very low red heat under the influence of reducing gases. The surface of the metallic film so obtained glows with brilliant iridescent colours. The process has been reduced to such precision that the kilns are hermetically sealed during the firing, and no "trials" of any description are drawn from start to finish of the process. The temperature is recorded by the use of two thermocouples, placed at the bottom and top of the kiln respectively. The reducing gases are of standard composition, so that the process is so far as possible automatic.—*Hon. C. A. Parsons, F.R.S.:* Photographs of diamonds obtained from pure iron heated in a carbon crucible in an electric furnace and rapidly cooled. Scale, 150 diameters.—*Dr. Herbert Smith:* Precious stones, cut and uncut. The exhibit includes most of the mineral species that are available for jewellery purposes. The following are the more noteworthy of the specimens :—a star-twin of diamond; crystals and faceted specimens of olivine (peridot) from the Red Sea; sapphires from Montana and Ceylon; natural and "reconstructed" rubies; various opals, including opalised shells; diamonds, chrysoberyls, and topazes from Rhodesia; garnets from German East Africa; and specimens of the rare species phenakite, axinite, and diopside.—*Dr. Tempest Anderson:* Photographs illustrative of the volcanoes of Central America, and of a revisit to the Soufrière of St. Vincent. The volcanoes of the Soufrière of St. Vincent and Montagne Pelée in Martinique, both to the east of the Caribbean Sea, erupted in 1902. The volcano of Santa Maria in Guatemala, to the west of the same sea, erupted in the same year, and when it was examined this spring the eruption proves to have been of the same character.

The Royal Society: The Linnæus bicentenary—original certificate of candidature of Linnæus, dated 1753, for election into the Royal Society.—*Dr. W. A. Cunnington and Mr. C. L. Boulenger:* Examples of the fauna of the Fayûm Lake, Birket-Qurun, investigated at the request of the Egyptian Survey Department. (1) Series of the fishes, including examples of the three different kinds of Bulti (Tilapia). The females take charge of the eggs and young, which they seclude in the mouth and gill-chambers. (2) Series of the invertebrates of the lake, including examples of a new lacustrine medusa (*Moerisia lyonsi*).—*Prof. Charles Stewart, F.R.S.:* (1) Specimens illustrating alternation of generation. (2) Various invertebrates and birds showing colours due to structure; mostly thin films, and not pigment; consequently the colour is lost on crushing.—*Prof. S. J. Hickson, F.R.S.:* A collection of species of the genus Corallium, and a specimen of *Corallium maderense*, polished and mounted in silver.—*Dr. Ernst Hartert:* Birds represented in the British Isles by peculiar forms, and their Continental allies. So late as 1892 Wallace accepted only three birds as peculiar to the British Isles ("Island Life," p. 340), and even more recent works have not mentioned more than three or four. Careful investigations, however, have shown that about twenty British birds show constant and often easily recognised differences from their Continental allies. Eighteen of these are exhibited, with their allies, in order to show their differences.

Prof. Flinders Petrie, F.R.S.: Pottery soul-houses, 3000 B.C. These models, made by the Egyptians, were found at the cemetery of Rifeh in Upper Egypt, where they had been placed upon the graves. They were developed from the trays of offerings for the dead, to which a shelter was added, and further enlarged with the addition of furniture so as completely to resemble an actual house, in which the soul was supposed to dwell. Their period is from the ninth to the twelfth dynasty. Found by the British School of Archæology in Egypt, 1907.