

Third Annual Mining Exhibition, under the auspices of the Chemical, Metallurgical, and Mining Society of South Africa, will be held in the Volunteer Drill Hall, Johannesburg, beginning May 19th, and closing May 29th.

The scope of the exhibition will be on much the same lines as in previous years,—*i.e.*, chemical, metallurgical, and mining apparatus and devices for laboratories, works, and mines; models of apparatus for similar purposes; plans, diagrams, etc., of mines, works, plants, machinery, and apparatus; safety and rescue apparatus and appliances; and specimens of crude and manufactured mineral or other natural products of South Africa.

The exhibition is primarily for the benefit and information of those engaged and interested in mining work and mineral products.

No charge will be made for the exhibition of natural products by farmers or prospectors, or for models or apparatus exhibited by mine employees or inventors.

Commercial firms desirous of exhibiting machinery, apparatus, etc., will be charged for the space occupied.

The usual arrangements for exhibitions with regard to customs duties and railway rates will be made.

Further information may be had by applying to Fred Rowland, Secretary, Johannesburg, South Africa.

International Exposition of the Book Industry and Graphic Arts.—An exhibition of the book-making industries will be held in Leipzig, Germany, from April to November of the present year, to commemorate the 150th anniversary of the founding of the Royal Academy for the Graphic Arts.

Lithography, photography, wood carving, stereotyping and electrotyping, printing processes, bookbinding, and all other branches of the graphic arts will be included.

The exhibits will be divided into sixteen groups, consisting of sixty-three classes. Considerable space will be devoted to the department of education, where plans and models of school buildings will be shown, as well as drawings, examination papers, and other work by students.

Detailed information may be had by addressing the management.

Structure of Diamond. W. H. BRAGG and W. L. BRAGG. (*Nature*, xci, 557.)—The new methods of investigation were applied, involving the use of X-rays to the case of the diamond, and there was obtained a knowledge of its structure, which is extremely simple: Each carbon atom has four neighbors at equal distances from it and in directions symmetrically related to each other. The directions are perpendicular to the four cleavage or (I.I.I.) planes of the diamond, therefore parallel to the four lines which join the centre of a given regular tetrahedron to the four corners. The elements of the whole structure are four directions and one length, this