brought about the general recognition of Lavoisier's ideas; whereas the more exclusive representatives of chemistry, such as Berthollet and Guyton, held aloof for some considerable time. In the earlier syllabus of the École polytechnique, chemistry was brought into a similar proximity with the mathematical branches. And Berthollet's 'Statique chimique' denotes by its title alone the mathematical spirit in which the work was conceived.

23. New mathematical sciences.

About that time also two new sciences were, if not invented, at least set on a firm basis, by which the use of mathematics was very largely extended, and by which great realms of interesting facts were made accessible to accurate measurements and exact reasoning. Both these sciences can be claimed by France as almost exclusively her own creations. They are the science of crystallo-

24. Crystallography.

graphy and the great theory of probabilities. The former was the work of the Abbé Haüy; the latter formed, next to the mechanics of the heavens, the main original contribution by which Laplace has perpetuated his name in the history of science. The theory of the Abbé Haüy, who first taught how crystals are built up from small particles of definite and regular geometrical forms, such as cubes, pyramids, &c., came to the aid of the mineralogists, who before him had vainly groped in the dark, searching for some method by which order and system could be introduced into the lifeless forms of nature as by the methods of Linnæus and Jussieu it had been introduced into the world of plants and animals. Before Haüy, the doctrines of mineralogy had been either attached to geology—especially in the celebrated school of Werner, or latterly, after the great developments in chemistry had