first observer who showed their important bearing on geological researches into the origin of crystalline rocks was Mr. Sorby, in whose paper, already cited, they occupy a prominent place. Vesicles entirely filled with liquid are distinguished by their sharply-defined and narrow black borders. Vesicular spaces containing fluid may be noticed in many artificial crystals formed from aqueous solutions (crystals of common salt show them well) and in many minerals of crystalline rocks. They are exceedingly various in form, being branching, curved, oval, or spherical, and sometimes assuming as negative crystals a geometric form, like that characteristic of the mineral in which they occur, as cubic in rock-salt and hexagonal in quartz. They also vary greatly in size. Occasionally in quartz, sapphire, and other minerals, large cavities are readily observable with the naked eye. But they may be traced with high magnifying powers down to less than $\frac{1}{10000}$ of an inch in diameter. Their proportion in any one crystal ranges within such wide limits, that whereas in some crystals of quartz few may be observed, in others they are so minute and abundant that many millions must be contained in a cubic inch. The fluid present is usually water, frequently with saline solutions, particularly chloride of sodium or of potash, or sulphates of potash, soda, or lime. Carbon-dioxide may be present in the water; sometimes the cavities are partially occupied with it in liquid form, and the two fluids, as originally observed by Brewster, may be seen in the same cavity unmingled, the carbon-dioxide remaining as a freely moving globule within the carbonated water. Cubic crystals of chloride of sodium may be occasionally observed in the fluid, which must in such cases be a saturated solution of this salt (Fig. 11, lowest figure in Column A). Usually each cavity contains a