

**The Pyrophone.**—M. Kastner has given the name of pyrophone to an invention based upon the sounds which are produced by the hydrogen flame in tubes of glass. The instrument is played with a key-board like a piano, and the notes are remarkably sweet and sonorous.—*Badeblatt*. C.

**Prof. Crookes in Paris.**—On the invitation of M. Wurtz, Prof. Crookes took his apparatus to Paris and repeated his experiments upon radiant matter before the medical faculty, and also at the Paris observatory in a soirée given by Admiral Mouchez. The experiments were remarkably successful and were received with great applause.—*Les Mondes*. C.

**Wide Diffusion of Copper.**—Dieulafait has published a memoir upon the existence of copper, in a state of complete diffusion, in all the rocks of primordial formation and in all the sedimentary deposits which are directly derived from the primordial. As principal consequences of this fact he points out: 1. The constant existence of copper in the sea waters of ancient and modern times. 2. The origin and mode of formation of copper ores. 3. The necessary presence of copper in all the mineral waters of azoic regions.—*Ann. de Chim. et de Phys.* C.

**Action of Nitrates on Nitric Acid.**—Alfred Ditte finds that metallic nitrates may be divided, in regard to their action in contact with fuming nitric acid, into three well-marked classes: 1. Some dissolve in large quantities and combine with the acid so as to give rise to acid salts well defined. 2. Some, after having been deprived as much as possible of their water of crystallization, dissolve with ease; the solubility increases with the temperature, and in cooling, hydrous nitrates are deposited, but containing less water than the crystals which are formed from the liquid. In this way he has obtained several new hydrates. 3. A third class, the most numerous of all, contains salts which are insoluble, or only slightly soluble, at all temperatures. Potash and soda are placed in different groups. Lithia is ranged with soda; and rubidium, caesium, thallium and ammonium on the side of potash. All the alkaline nitrates are anhydrous except that of lithia, which crystallizes with five equivalents of water below 10°C. (50°F.), and that of soda, which forms below 0°C. (32°F.) a hydrate containing fourteen equivalents of water.—*Ann. de Chim. et de Phys.* C.