

some veins with it by accident. "*Sed idem multo saepius perdunt operam, et ut venas invenire possint, nihilominus in fossis agendis defatigantur, quam adversae partis metallici.*"—"but the same people much more frequently lose their pains, and in order to discover veins have to fatigue themselves with digging, not less than the miners of the opposite school."

As a piece of sorcery, he goes on to say, the virtuous and respectable miner will avoid it; as a piece of science, it is inferior to the study of nature, following the indications of which, the skillful and prudent miner selects a good place for exploration, and "*ibi metallicus agit fossas*"—"there the miner digs"—to which business, rod or no rod, he is bound to come at last.

SPONTANEOUS DECOMPOSITION OF EXPLOSIVE GELATINE.—According to Abel, neither trinitrocellulose nor the less nitrated products are affected, when pure, by a temperature near 100°, but the easy decomposibility of gun cotton, sometimes observed, is due to the presence of nitro-derivatives of foreign organic substances (the incrusting matter of the cellular tissue), which, when heated, quickly decompose with formation of free acid. Prof. Chas. E. Munroe, U. S. N. A., reports the following case which has occurred under his own observation. Some camphorated explosive gelatine was wrapped in paraffine paper, then in light brown Manilla paper, and laid on a shelf. After something more than a years' exposure it was found, in the early winter, to be giving off nitrous fumes and to have shrunk considerably in volume, while the outside of the paper was covered with congeries of fine crystals. The odor of camphor was still quite strong. The mass was immediately put into a vessel of water. It was found to be friable, and, after a short immersion, disintegrated. The camphor odor soon disappeared, and the water became of a straw color, gave a strong acid reaction, and showed traces of nitrous acid, but no nitric acid. On evaporation of the filtered liquid, oxalic acid crystallized out in quantity, and on evaporation of the "mother liquor" on the water-bath, a sugar-like mass was obtained, which gave the glucose reaction with Fehling's solution. The paraffine was regained unchanged, and the paper was recovered, but in a flocculent condition, and with the color bleached from the brown. Careful search failed to reveal the presence of glycerine, nitro-glycerine, or gun-cotton.—*Jour. Amer. Chem. Soc.*, vol. 6, Feb. 1884. C.

A NEW REFRACTORY BRICK.—A French engineer has introduced a refractory brick of pure graphite, by perfectly agglomerating the powder of that substance. It is well known that graphite is nearly infusible at the highest temperatures that can be produced and this new class of bricks will doubtless prove very serviceable in metallurgy, where the want of linings which are wholly infusible has long been felt.—*Gaceta Industrial*, March 25, 1884. C.