

Diamagnetism of Hydrogen.—R. Blondlot finds that condensed hydrogen has diamagnetic properties of considerable energy, and that the diamagnetism increases in a greater ratio than the condensation. His experiments confirm some of the conclusions which Tyndall published in his researches upon crystalline bodies.—*Comptes Rendus*. C.

Nitrogen of Plants.—Berthelot has experimented upon the absorption of nitrogen by organic compounds, under the action of feeble electric currents, analogous to those which pervade the soil. He finds that he can thus account for the “unknown source” of vegetable nitrogen, which Lawes and Gilbert observed in their agricultural experiments at Rothamsted.—*Comptes Rendus*. C.

Forms of Molecules.—Prof. J. Clerk Maxwell, reasoning from the conclusions of Boltzmann’s paper “on the nature of gas-molecules,” concludes that the molecules of chlorine, ammonia and sulphureted hydrogen, are rigid elastic bodies; those of hydrogen, oxygen, nitrogen, air, carbonic oxide, nitrous oxide and hydrochloric acid, are smooth figures of revolution; and those of mercury-gas are smooth spheres.—*Nature*. C.

Venetian Sewerage.—The square of St. Mark, in Venice, is often flooded by the spring tides. Engineer Domenico Asti proposes to remove the inconvenience by conduits which will hold the greatest quantity of rain that ever falls in six hours, with self-acting gates, which open at low tide and exclude the waters of the lagoon at high tides. By an expenditure of \$20,000, he thinks that all inundations could be prevented, except in the few very exceptional cases which occur only at intervals of many years. His paper is accompanied by drawings and detailed calculations.—*Il Politecnico*. C.

Electric Lighting.—The experiments with the Gramme machines are now daily repeated at the Palais de l’Industrie, in Paris. An area of 12,000 square metres is lighted by two electric lustres, of six lamps each, suspended at 27 metres from the ground. The power is supplied by two steam engines of 25 horse-power each. It would take 10,000 candles to yield an equivalent light on the floor, or 300,000 to illuminate the whole space as thoroughly. The subdivision of the light has been very successful. At first there was but a single lustre, then there were two, and it is proposed soon to introduce three.—*Les Mondes*. C.