

Bruckmann in Germany.* It appears that there are extensive districts in various parts of Europe, where, under certain conditions of geological structure, and at certain levels, artificial fountains will rise to the surface of strata which throw out no natural springs,† and will afford abundant supplies of water for agricultural and domestic

through the London Clay, either into sandy beds of the Plastic Clay formation, or into the Chalk; such as those represented at D, E, F, G, H, I. If the Perforation be made at G, or H, where the surface of the country is below the line A, B, the water will rise in a perpetually flowing Artesian fountain, as it does in the valley of the Thames between Brentford and London.

* See Héricart de Thury's *Considérations sur la cause du Jaillissement des Eaux des puits forés*, 1829.

Notices scientifiques par M. Arago. *Annuaire*, pour l'An. 1835.

Von Bruckmann über Artesische Brunnen. Heilbronn am Neckar, 1833.

† The Diagrams in Pl. 69, Figs. 1 and 2, are constructed to illustrate the causes of the rise of water in natural, or artificial springs, within basin-shaped strata that are intersected by the sides of Valleys, or traversed by Faults.

Supposing a Basin (Pl. 69, Fig. 1.) composed of permeable strata, E, F, G, alternating with impermeable strata, H, I, K, L, to have the margin of all these strata continuous in all directions at one uniformly horizontal level A, B, the water which falls in rain upon the extremities of the strata E, F, G, would accumulate within them, and fill all their interstices with water up to the line A, B; and if a Pipe were passed down through the upper, into either of the lower strata, at any point within the circumference of this basin, the water would rise within it to the horizontal line A, B, which represents the general level of the margin of the Basin. A disposition so regular never exists in nature, the extremities or *outcrops* of each stratum are usually at different levels, Fig. 1. a. c. e. g.) In such cases the line a. b.