

Important treatises upon the subject of Artesian Wells have lately been published by M. Héricart de Thury and M. Arago in France, and by M. Von

and described in Phil. Trans. London. 1797. The water of this well was derived from sandy strata of the plastic clay formation, but so much obstruction by sand attends the admission of water to the pipes from this formation, that it is now generally found more convenient to pass lower through these sandy strata, and obtain water from the subjacent chalk. Examples of wells that rise to the surface of the lowest tract of land on the W. of London may be seen in the Artesian fountain in front of the Episcopal palace at Fulham, and in the garden of the Horticultural Society. Many such fountains have been made in the Town of Brentford, from which the water rises to the height of a few feet above the surface.

This height is found to diminish as the number of perpetually flowing fountains increases; and a general application of them would discharge the subjacent water so much more rapidly than it arrives through the interstices of the chalk, that fountains of this kind when numerous would cease to overflow, although the water within them would rise and maintain its level nearly at the surface of the land.

The Section, Pl. 68 is intended to explain the cause of the rise of water in Artesian Wells in the Basin of London, from permeable strata in the Plastic-clay formation, and subjacent Chalk. The water in all these strata is derived from the rain, which falls on those portions of their surface that are not covered by the London Clay, and is upheld by clay beds of the Gault, beneath the Chalk and Fire-stone. Thus admitted and sustained, it accumulates in the joints and crevices of the strata to the line A. B. at which it overflows by springs, in valleys, such as that represented in our section under C. Below this line, all the permeable strata must be permanently filled with a subterranean sheet of water, except where faults and other disturbing causes afford local sources of relief. Where these reliefs do not interfere, the horizontal line A, B, represents the level to which water would rise by hydrostatic pressure, in any perforations