

these matters are not placed in horizontal layers, as are the ancient strata, which have been formed by the sediment of the waters; on the contrary, they are formed in perpendicular fissures, in caverns, and in other places where the water can penetrate. Inflaming, they produce a quantity of air, the spring of which being compressed in a small space, like that of a cavern, will not only shake the ground directly above, but will seek out for passages by which it may escape. The roads which offer themselves are caverns and trenches, formed by subterraneous rivulets: into these the rarefied air will precipitate with violence, form in them a strong wind, the noise of which will be heard at the surface, accompanied with shocks of the earth, &c. this subterraneous wind, produced by the fire, will extend as far as the subterraneous cavities, and cause an agitation more or less violent as it is distant from the vent, and finds the passages of a larger or lesser extent: this motion being made longitudinal, the shock will be the same, and the earthquake be felt through a long zone of ground. This air will not produce any eruption, or volcano, because it will find sufficient space to expand, or rather because it will have found vents, and issue forth in form