permeable stratum. A subterranean drainage then takes place, but when impeded by projecting points or ridges of rock, or where inequalities in the stratum occur, reservoirs are formed, which on being tapped produce springs. When, however, there are no such impediments, and the surface of the substratum presents a comparatively smooth inclined plane, no quantity of water can lodge upon it "Water must find its level" underground, as on the surface.

Speaking of the causes of failure to obtain water in boring for wells, the same high authority quoted above, says: "Where natural lines of drainage exist there remains but a small quantity to escape by artificial issues." He also adds "that the dip of the strata may be such as to carry off the water from the adjacent highlands to some trough in an opposite direction, as when the borings are made at the foot of an escarpment where the strata incline inwards, or in a direction opposite to the face of the cliffs."

This is exactly what occurs here. The widest part of the harbor basin forms a deep trough, towards which all water finding its way through the more porous subsoils, must drain off. The Dock, situated as it is at the upper end of the harbor, stands on a much higher level, from which is a regular downward slope towards the deeper basin. It is also close to the escarpment of the South Side hill range, where the strata "do incline inward, or in a direction opposite the face of the hills." In view of the foregoing facts, I think there need be little apprehension of the structure ever being troubled, either by shifting quicksands or springs from beneath.

I remain,

Your obedient Servant,

(Signed), JAMES P. HOWLEY, F.G.S.