

that the mere visible section of a fault on some cliff or shore does not necessarily afford such clear evidence of its nature and effects as may be obtained from other parts of the region, where it does not show itself at the surface at all. In fact, he might be deceived by a single section with a fault exposed in it, and might be led to regard that fault as an important and dominant one, while it might be only a secondary dislocation in the near neighborhood of a great fracture, for which the evidence would be elsewhere obtainable, but which might never be seen itself. The actual position (within a few yards) of a large fault, its line across the country, its effect on the surface, its influence on geological structure, its amount of vertical displacement at different parts of its course—all this information may be admirably worked out, and yet the actual fracture may never be seen in any one single section on the ground. A visible exposure of the fracture would be interesting: it would give the exact position of the line at that particular place; but it would not be necessary to prove the existence of the fault, nor would it perhaps furnish any additional information of importance. The existence of an unseen fault may usually be determined by an examination of the geological structure of a district. An abruptly truncated outcrop is always suggestive of fracture, though sometimes it may be due to unconformable deposition against a steep declivity. If a series of strata be discovered, in a water-course or other exposure, dipping continuously in one general direction at angles of 10° or more, and if, at a short distance, another portion of the same series be found inclined in another direction, the two thus striking at each other, a fault will almost always be required to explain their relation. If all the evidence obtainable, from the sections in water-courses or other-