Term: Induction
Quote: However, it is now time for me to pass to the consideration of Inductive Reasoning. When I say that by inductive reasoning I mean a course of experimental investigation, I do not understand experiment in the narrow sense of an operation by which one varies the conditions of a phenomenon almost as one pleases. We often hear students of sciences, which are not in this narrow sense experimental, lamenting that in their departments they are debarred from this aid. No doubt there is much justice in this lament; and yet those persons are by no means debarred from pursuing the same logical method precisely, although not with the same freedom and facility. An experiment, says Stöckhardt, in his excellent *School of Chemistry*, is a question put to nature. Like any interrogatory, it is based on a supposition. If that supposition be correct, a certain sensible result is to be expected under certain circumstances which can be created, or at any rate are to be met with. The question is, Will this be the result? If Nature replies “No!” the experimenter has gained an important piece of knowledge. If Nature says “Yes,” the experimenter’s ideas remain just as they were, only somewhat more deeply engrained. If Nature says “Yes” to the first twenty questions, although they were so devised as to render that answer as surprising as possible, the experimenter will be confident that he is on the right track, since $2^{20}$ exceeds a million.

References: CP 5.168
Date of Quote: 1903
URL: http://www.commens.org/dictionary/entry/quote-harvard-lectures-pragmatism-lecture-vi-3