Among the theoretical sciences [of discovery], I distinguish three classes, all resting upon observation, but being observational in very different senses. [—]

Class III is Bentham's idioscopic [CP 1.242n2: “Idioscopic ... from two Greek words, the first of which signifies peculiar. In Idioscopic ontology, then, we have that branch of art and science which takes for its subject such properties as are considered as peculiar to different classes of beings, some to one such class, some to another.” The Works of Jeremy Bentham, Edinburgh, 1843, viii, 83, footnote.]; that is, the special sciences, depending upon special observation, which travel or other exploration, or some assistance to the senses, either instrumental or given by training, together with unusual diligence, has put within the power of its students. This class manifestly divides itself into two subclasses, the physical and the psychical sciences; or, as I will call them, physiognosy and psychognosy. Under the former is to be included physics, chemistry, biology, astronomy, geognosy, and whatever may be like these sciences; under the latter, psychology, linguistics, ethnology, sociology, history, etc. Physiognosy sets forth the workings of efficient causation, psychognosy of final causation.

Science of Discovery is either, I. Mathematics; II. Philosophy; or III. Idioscopy.

Mathematics studies what is and what is not logically possible, without making itself responsible for its actual existence. Philosophy is positive science, in the sense of discovering what really is true; but it limits itself to so much of truth as can be inferred from common experience. Idioscopy embraces all the special sciences, which are principally occupied with the accumulation of new facts. [—]

Idioscopy has two wings: a. the Physical Sciences; and b. the Psychical, or Human Sciences.
Idioscopy is occupied with the discovery and examination of phenomena, aided by mathematics and philosophy. It is extremely doubtful which of its two wings should be placed first.

This quote has been taken from Kenneth Laine Ketner's 1983 reconstruction of Peirce's 'Autobiography'

Idioscopy is that science which is occupied in making new observations and which uses these to find out what further it can by inference.

The sort of science that is founded upon the common experience of all men was recognized by Jeremy Bentham under the name of cenoscopy, in opposition to idioscopy, which discovers new phenomena.

The third department [of heuretic science], called idioscopy, embraces all those kinds of investigation which are occupied in bringing to light phenomena previously unknown and which having discovered these phenomena use the same observational methods to push the study of them further.

I divide the sciences of discovery into, 1, Mathematics, which traces out the consequences of hypotheses without concerning itself with their truth, and as the business is carried on, also formulates these hypotheses to represent in some measure confused statements of supposed fact (or fancy); 2, Philosophy, which deals with positive truth, but only so far as it is discoverable from ordinary everyday experience; 3, Idioscopy, or Special Science, which business chiefly consists in observation.