The mathematicians call a diagram that is composed mainly of spots of different kinds and of lines, a graph.

A graph is the propositional expression in the System of Existential Graphs of any possible state of the universe. It is a Symbol, and, as such, general, and is accordingly to be distinguished from a graph-replica. A graph remains such though not actually asserted.

A graph is a legisign (i.e., a sign which is of the nature of a general type) which is one of a certain class of signs used in this system [of existential graphs].

A Graph is a diagram consisting of no more than, first, the sheet upon which it is written, secondly, spots (or their equivalents) having various visible qualities (as colors, etc), third, lines of connection (commonly of only two kinds, those that are drawn and those that are left undrawn), and fourth[,] enclosing ovals.

A graph is a superficial diagram composed of the sheet upon which it is written or drawn, of spots or their equivalents, of lines of connection, and (if need be) of enclosures. The type, which it is supposed more or less to resemble, is the structural formula of the chemist.

A sign on the sheet of assertion or on any other area, made by a single action or series of acts of
scribing and expressive, according to the conventions of this system [of existential graphs], of an intelligible state of things, shall be called a graph-replica. The general type of all possible graph-replicas which would be similar to a given graph-replica in every significant respect, shall be called a graph.

1908 | The First Part of An Apology for Pragmaticism | LI 370-371

...a Graph is that one form which is embodied alike in all Graph-instances which have the same signification expressed in essentially the same way.