value of a fact, and that, though the objects I have described are minute, the conclusions to be derived from the facts are great."[1]

Professor Zirkel was the first geologist of note who took up with zeal the method of investigation so auspiciously inaugurated by Mr. Sorby. But some five years had elapsed before he made his communication on the subject to the Academy of Sciences of Vienna.[2] From that date (1863) he devoted himself with much zeal and success to the investigation, and produced a series of papers and volumes which gave a powerful impetus to the study of petrography. This department of geology was indeed entirely reconstituted. The most exact methods of optical research were introduced into it by Professor Rosenbusch, Professor Fouqué, M. Michel Lévy and others, and the study of rocks once more competed with that of fossils in attractiveness. We have only to look at the voluminous literature which, within the last fifty years has sprung up around the investigation of rocks, to see how great a revolution has been effected by the introduction of the microscope into the equipment of the geologist. For this transformation we are, in

[1] *Quart. Journ. Geol. Soc.* xiv. (1858), p. 497. See also Mr. Sorby's Presidential Addresses to the Geological Society for 1879 and 1880.

[2] *Sitzungsber. Math. Naturwiss.* vol. xlvii. 1st part (1863), p. 226. In this paper the author refers to previous occasional use of the microscope for determining the mineralogical composition of rocks by Gustav Rose, G. vom Rath, G. Jenzsch, M. Deiters and others. In England the first geologist who published the results of his microscopical examination of rocks was David Forbes, *Popular Science Review* (October 1867), vol. vi. p. 355.