

tion of natural order as the automatic result of natural law has not ceased, and at length has become so nearly complete that the appearance of order under any circumstances is now taken as proof of the existence of a law.

The fate of the hypothesis of purpose in nature has been less simple, because the discovery of law, or even of the possibility of law, underlying adaptation and fitness was more difficult. Until the middle of the nineteenth century the countless adaptations of organisms to the environment and the manifest fitness of nature for the activities of living things seemed to many biologists only explicable as the result of some directing force.¹ Even skeptics were nearly or quite

mathischer (formeller) und keineswegs mehr principieller Natur."—MACH, "Die Mechanik in Ihrer Entwicklung Historisch-Kritisch Dargestellt." Leipzig, 1897, 3d ed., p. 257.

"Dann hat er auch die Aufstellung der heute angenommenen Principien der Mechanik zu einem Abschluss gebracht."—MACH, *ibid.* p. 181.

¹ See for example that remarkable series of works, the Bridgewater Treatises "On the Power, Wisdom, and Goodness of God, as manifested in the Creation; illustrating such work by all reasonable arguments, as for instance the variety and formation of God's creatures in the animal, vegetable, and mineral kingdoms; the effect of digestion, and thereby of conversion; the construction of the hand of man, and an infinite variety of other arguments; as also by discoveries ancient and modern, in arts, sciences, and the whole extent of literature."—WHEWELL, "Astronomy and General Phys-