

better. It would seem as if to such minds the scientific formula, the so-called law of nature, must be distasteful, and probably useless. Nevertheless the scientific view, of which the mathematical formula is an extreme expression, has reacted, though not always beneficially, upon the labours of those who confine themselves to observation and description; it has given to their efforts general interest and encouragement, indicated new directions, and frequently opened new fields. Thus the new formula of Copernicus and Galileo gave a great impetus to stargazing, which was greatly increased by the almost contemporary invention of the telescope. The new theory required the rotation of the planets, and led to minute observations of their phases, and to the discovery of the satellites of Jupiter and the ring of Saturn. Variable stars were incidentally discovered by Tycho, and the long-neglected comets received greater attention. Bernoulli attempted, and Halley actually carried out, the calculation of the return of a comet. Still later—in fact, not before the end of the eighteenth or the beginning of the present century—came the turn for reliable observation of meteors and auroras; for as late as 1790 the ‘*Décade philosophique*,’ as well as the Paris Academy and many learned persons, ridiculed the authentic reports of the fall of meteors, and Chladni’s classical dissertation on the stone of Pallas.¹ It seems as if the purest love of

¹ When in the year 1790 the municipality of Juillac in Gascony submitted a report, signed by more than 300 eyewitnesses, to the Paris Academy, on a fall of stones which had there taken place, one of the editors of the ‘*Décade philosophique*’ remarked that it would be

better to deny such incredible things than to enter into any explanations. Bertholon could not help pitying a community which had such a foolish *maire*, and remarked in the ‘*Journal des Sciences utiles*’: “How sad it is to find a whole municipality attesting formally by protocol popu-