refused to congregate in distinct schools and institutions The Royal Society, or to be localised in definite centres. the Royal Institution, the British Association, and many other smaller societies, have all more or less started with the programme of Lord Bacon, and have failed to realise it: everywhere the schemes of co-operation or organised scientific research have encountered the opposition of individual pursuits or of local interests.

Newton could not secure the use of Flamsteed's observations, which on their part remained uncompleted and unpublished through the want of appreciation of others. Great schemes in practical life have been carried out by the unaided efforts of eminent persons, and great ideas have been put forward with all the power and all the resources of individual genius,¹ but no great master in scientific research in this country can point to a compact following of pupils-to a school which undertakes to finish what the master has begun, to carry his ideas into far regions and outlying fields of research, or to draw their remoter consequences. Newtonianism was a creation of Voltaire; the school of Locke is to be found in France; the best realisation of Bacon's schemes are the Encyclopédie, the French Institute, and the foreign Academies.² Dr Young's discoveries in optics

¹ See Huxley, 'Lay Sermons, &c.,' edition of 1891, p. 43: "Eng-land can show now, as she has been able to show in every generation since civilisation spread over the West, individual men who hold their own against the world, and keep alive the old tradition of her intellectual eminence. But in the majority of cases these men are what they are in virtue of their

native intellectual force, and of a strength of character which will not recognise impediments. They are not trained in the courts of the Temple of Science, but storm the walls of that edifice in all sorts of irregular ways, and with much loss of time and power, in order to obtain their legitimate positions." ² See above, pp. 34, 95.

24. Absence of schools of scientific thought.