

general stock of ideal possessions, not merely to criticise the shortcomings and failures of separate schools of thought, or separate sources of mental development. Only in the aggregate of these different ideals is to be found the inventory of the intellectual possessions, the outcome of the higher work of the century.

30.
Educational
organisa-
tions in
England.

When the modern scientific methods and their impelling force, the mathematical spirit, made their way from France to Germany during the first quarter of the century,

French models, can be clearly traced. Between 1830 and 1850 his influence exerted itself in two directions, firstly by the publication of his 'History of the Inductive Sciences' (3 vols. 1837; a second edition appeared in 1847, a third in 1857), and, secondly, by a series of papers and pamphlets referring to university education. As the ideal and definition of this Whewell adopts the term "liberal education." The first of these papers appeared in the 'British Critic' (No. 17, 1831, "Science of the English Universities"). Then followed in 1836 "Thoughts on the study of Mathematics"; "Additional Thoughts," 1836; "On the Principles of English University Education," 1837; "Of a Liberal Education in General" (Part 1, 1845; Part 2, 1850; Part 3, 1852). The second part of the little work on Liberal Education gives a history of the various changes previous to 1850 through which the University of Cambridge tried to meet the growing demands of the times for a wider and more liberal programme of higher scientific work. In these various writings the work of education and "original research" (a term introduced by Whewell—see Todhunter, 'Life of Dr Whewell,' vol. i. p. 50), the nature of "permanent" and "progressive" studies at the university, of "university" and

"college" education, of "tutorial" and "professorial" teaching, are fully discussed. In the course of thirty years the university of Cambridge added to the examinations for mathematical honours the "Classical" Tripos (1822), the "Moral Sciences" Tripos and the "Natural Sciences" Tripos (1848); also a "Board of Mathematical Studies" (1848). Dr Whewell's great influence declined when in 1850 Royal Commissions were appointed to "inquire into the state, discipline, studies, and revenues of the universities of Oxford and Cambridge." He "regarded the Commission as an unwarranted and undesirable intrusion into the affairs of the university." The results of this inquiry belong to the second half of the century. Although this movement, which was brought about by many influences, has somewhat changed the issues, the central idea which in England tries to assimilate the higher work and thought of the nation is that of education. The term liberal education, which for twenty years, from 1830 to 1850, formed the banner of university reform, has since somewhat yielded to "scientific," and more recently to "technical," education; the influence of the universities has gone out in the work of university extension in the provincial towns; still