high schools, 166; The university a training-school for research, 167; The ideal of Wissenschaft, 168; Developed under the German university system, 170; Reception of exact science in Germany, 174; Science not yet domiciled during the eighteenth century, 178; Scientific periodicals, 180; Gauss's mathematical researches, 181; Scientific spirit enters the universities in second quarter of century, 183; Jacobi's mathematical school, 185; Chemical laboratories established in 1826 through Liebig, 188; Cosmopolitan character of German science, 189; Liebig's organic analysis, 191; Biology a German science, 193; Cellular theory of Schleiden, 194; and Schwann, 195; Ernst Heinrich Weber, 196; and Johannes Müller, 197; Psychophysics, 198; Spirit of exact research and Wissenschaft, 202; Encyclopædic view necessary in philosophy and history, 203; Philosophy of Nature, 204; Conflict between the scientific and the philosophical views, 205; A. von Humboldt, 206; Influence of Berzelius on German science, 208; Philosophy of Nature and medical science, 209; Science for its own sake, 211; Bequest of the classical and philosophical school, 211; Completeness and thoroughness of research, 213; Combination of research and teaching, 214; Combination of science and philosophy, 215; Biology grown out of science and philosophy combined, 216; Du Bois-Reymond on Müller, 217; "Vital force" abandoned, 218; Mechanical view in biology, 219; Criticism of principles of mathematics, 221; The exact, the historical, and the critical habits of thought, 222.

CHAPTER III.

THE SCIENTIFIC SPIRIT IN ENGLAND.

Scientific organisation abroad, 226; Similar institutions in Great Britain, 227; English science in the early part of the century, 229; Alleged decline of science in England, 230; Criticisms of Playfair, 231; Babbage's criticisms, 233; Foreign opinions on English science, 235; English replies to Babbage, 238; Foundation of the British Association, 238; Characteristics of higher mental work in England, 239; Academies and universities not always impartial, 240; Fourier, 241; Fresnel, 241; Plücker, 242; Grassmann, 243; Central organisation wanting in England, 243; Thomas Young, 244; Dalton, 245; Faraday, 246; Green, 246; Boole, 247; Babbage, 248; Characteristics of English thought, 249; Absence of schools of scientific thought, 250; Individual character and practical tendency of English science, 251; English peculiarities more pronounced during earlier part of the century, 252; Unique character of English universities, 254; Ideal of "liberal education," 255; Union of education and instruction, 258; Educational organisations in England, 262; The