

pilation of facts bearing on the question of evolution, and by the masterly arguments for the origin of species through the agency of Natural Selection. According to Darwin and Wallace (co-discoverers of the Theory of Natural Selection) there are three main factors in the evolution of species:

- (1) *Over-production among organic beings;*
- (2) *Variation; and*
- (3) *Heredity.*

The main argument may be summarized as follows: As organic beings tend to increase in a geometrical ratio, while the means of subsistence tend to increase only in an arithmetical ratio (Malthus),¹ there naturally arises a severe struggle for life at some age, season or year. As there is much variation in the structure of even the most closely



Fig. 2.—CHARLES DARWIN

allied forms those forms that possess useful variations will most likely survive in the struggle for existence² in an environment of infinite complexity, both with regard to the relations of beings to one another and to the conditions of life: then because of the "strong principle of inheritance

- (1)—Malthus' essay on "Population" was published in 1798 and the conclusions were based on data relating to human population obtained from many countries.
- (2)—Darwin said: "I use this term ('struggle for existence') in a large and metaphorical sense, including the dependence of one being on another, and including (which is more important) not only the life of the individual, but success in leaving progeny."