

THE NATURE OF THE PROBLEM

he it was who, in 1859, supplied a solid foundation for the theory of descent, which the able French naturalist Jean Lamarck had already sketched in its broad outlines in 1809, and the fundamental idea of which had been almost prophetically enunciated in 1799 by Germany's greatest poet and thinker, Wolfgang Goethe. In that theory we have the key to "the question of all questions, "to the great enigma of "the place of man in nature," and of his natural development. If we are in a position to-day to recognize the sovereignty of the law of evolution—and, indeed, of a monistic evolution—in every province of nature, and to use it, in conjunction with the law of substance, for a simple interpretation of all natural phenomena, we owe it chiefly to those three distinguished naturalists; they shine as three stars of the first magnitude amid all the great men of the century.

This marvellous progress in a theoretical knowledge of nature has been followed by a manifold practical application in every branch of civilized life. If we are to-day in the "age of commerce," if international trade and communication have attained dimensions beyond the conception of any previous age, if we have transcended the limits of space and time by our telegraph and telephone, we owe it, in the first place, to the technical advancement of physics, especially in the application of steam and electricity. If, in photography, we can, with the utmost ease, compel the sunbeam to create for us in a moment's time a correct picture of any object we like; if we have made enormous progress in agriculture, and in a variety of other pursuits; if, in surgery, we have brought an infinite relief to human pain by our chloroform and morphia, our antiseptics and serous therapeutics, we owe it all to applied chem-