HALF A CENTURY'S PROGRESS.

SECOND PAPER.

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Morituri te salutant moriturum.

THE progress of science in our time has indeed been so striking, so many-sided, so inseparably linked with every other phase of material advance, and, moreover, so intimately related to intellectual development and the trend of philosophic and religious thought, that it is an injustice to the subject to make a hasty mention of it. And yet, apart from the fact that a novice can do little more in any case, the nature of this retrospect makes it impossible, on the one hand, to ignore it, and, on the other, to more than indicate some of its most marvellous triumphs.* A venerable survivor of its half-dozen most illustrious modern spokesmen, himself associated, in modest worth, with its grandest achievement, in reviewing the century's work, reaches the conclusion that not only is it "superior to any that have gone before it, but that it may be best compared with the whole preceding historical period." If this be true of the century it is assuredly still more true of the latter half of it, as compared with all like previous periods, however selected. This advance may be regarded from three points of view: As it is related to science and men of science only, as the discovery of a new star, element, plant, animal or fossil not (or not yet) of interest to mankind at large; as it implies some real improvement to one or other of the arts of life; and as it modifies the outlook of popular theology and, perhaps, necessitates a new basis for ethics, law and the authority of ordered society. Even if it had not given rise to controversy outside as well as inside the great province of scientific thought and work, the theory of evolution—so largely adopted after the publication of Charles Darwin's elaborate argument—has proved to be the most effective and fruitful of all methods of research and has given fresh life to every class of inquiry. For forty years the principle to which Darwin's epochal book gave undreamed-of significance has been directing and stimulating not only scientific workers, but theologians, professional men, artists, men of letters—the critics especially—economists, and the toilers in the whole vast field of human endeavor. On the 2nd of November, 1859, was published the "Origin of Species," an edition of 1,250 copies. They were all sold before the close of that same day. A second edition of 3,000 followed, and before the year ended hundreds of thinkers, scientific and theological, knew that a new era had dawned. The first great battle over the theory was fought at the meeting of the British Association in the ensuing June. Bishop Wilberforce, who had already condemned the hypothesis in the *Quarterly Review*, was provoked to wrath by a needlessly combative paper of the elder Draper's. Huxley defended Darwin and the Bishop so far forgot himself in the torrent of his eloquence as to ask Professor Huxley whether it was by his grandfather's or his grandmother's side he was related to the ape family. The discussion took place in Section D, and the chair was occupied by a clergy-

* I consider it simply a duty to recommend to the reader of this magazine the work of a Canadian student of scientific progress. In "Flame, Electricity and the Camera," by George Iles (New York: Doubleday & McClure Co.), the inquirer will find a really admirable survey of what science has done for our time