hence the geologist has found it necessary to modify to some slight extent certain of his former views. With these exceptions, the present work is the same as the edition produced in 1867. But the reader who has not got the tenth edition will find that this one contains a host of facts and arguments, which do not make any appearance in the earlier issues of this splendid treatise. Among the more important matters peculiar to this edition is Chapter xx., in which the author discusses Dr. Carpenter's opinions on the subject of ocean-temperature. In regard to this point Sir Charles and Dr. Carpenter are at issue respecting the currents of the Mediterranean. The latter affirmed (we do not know that he still affirms) that there is a constant current flowing at the depth of 250 fathoms out of the Mediterranean. This is denied by Sir Charles Lyell, who calls in the subsequent researches of Captain Nares, which seem to prove the correctness of his formerly expressed opinions. In regard to Dr. Carpenter's researches in the North Atlantic, Sir Charles is entirely with him in the opinion that there are two currents, an upper warm one going towards the pole, and an under cold one below 32° Fahrenheit travelling towards the equator. There are many other points of novelty in the volume which Sir Charles Lyell has just issued which we cannot touch upon, but we may conclude with a hearty expression of the delight with which we have read the most charming treatise in existence upon general geology.

DARWIN'S "ORIGIN OF SPECIES."*

IF we had only time and space to give a proper notice of Mr. Darwin's great work, we should do so with feelings of the most intense pleasure. For, even though this is the sixth edition, it is nevertheless a new book; inasmuch as the author has taken up the arguments of his several opponents, and, we may fairly say, has reduced them to little more than misinterpretations; and, on the other hand, he has given a mass of new matter which goes less or more to bear out his views of natural selection being the cause which has produced the present variation in animals from some four or five types. We have not seen the edition which precedes this, so we are not certain whether its type differs from that of the first one, but at all events we may mention that, in its present form, it is in a much smaller and less agreeable type than formerly. In making this alteration, the author, we think, was led into a mistake. We shall just cite the more important additions which the present volume possesses. It has taken up, for example, Mr. Mivart's chief objections, and, so far as we have seen, has answered them satisfactorily. Next it deals with Mr. Ray Lankester's most philosophic essay on morphology. Reasons are given for disbelieving in great and sudden modifications. The author confirms his statement upon the habits of the young cuckoo. He has the discussion on analogical

* "The Origin of Species by means of Natural Selection; or the Preservation of Favoured Races in the Struggle for Life." By Charles Darwin, M.A., F.R.S. 6th edition. London: John Murray, 1872.

resemblances enlarged and somewhat modified. He corrects his remarks on serial homologies, &c. &c. In fact, as we have said, the author has re-written the volume, and in doing so he has not neglected to take up all the various arguments that have been urged against him. He shows, too, that his supporters are vastly greater than they were, and that they gradually increase. His book has an American edition, and has been translated into German, French, Italian, Russian (three editions), Dutch, and Swedish. He may well be proud of the fact, but he cannot feel as great a pride as his English followers feel in him; for they admire his calm philosophy, and they rejoice in the fact that the author of the most philosophic book of the century is an Englishman.

SUPPLEMENT TO WATTS' DICTIONARY.*

A BOOK which is merely a supplement to a regular dictionary, and which contains no less than 1136 pages of very small type, is, it must be confessed, rather a tough piece of work for the reviewer. Of course we give the most sketchy notice of such a work, but we cannot help wondering at the vast labour of the editor and his colleagues. The present volume brings the record down to 1869, but it includes also several additions to and corrections of former results which have appeared in 1870 and 1871. Thus this volume completes perhaps the most valuable encyclopædic publication which the literature of any country possesses. Besides the editor's writing, there are various contributions on Electricity.—Heat, by Mr. G. C. Foster, B.A., F.R.S.; on Proteids, by Dr. Michael Foster; on Beer and the Metallurgy of Iron, by Dr. B. H. Paul; on Light and Spectral Analysis, by H. E. Roscoe, Ph.D., F.R.S.; and on Acetic Ether (in part), the Butyl Alcohols, Butyric Acid (in part), Ethyl and the Ketones, by Mr. J. A. Wanklyn. Among a great number of articles, those which strike us as most worthy of notice are those on Atomicity and Chemical Action; but all are well done and all are of importance. Especially so is a paper on the Aromatic series, in which some of Kekulé's remarkable views are introduced; and that on Electricity, in which are given some good illustrations of Thomson's galvanometer. All through the book is of admirable quality, and we congratulate the editor on its issue to the public.

OUR NATIVE SINGING-BIRDS.†

THOUGH it must be confessed that our literature on this particular subject is far from being barren, still there is room for such a work as the title of the book before us involves. We mean that, for a work dealing

* "A Dictionary of Chemistry and the Allied Branches of other Sciences." By Henry Watts, B.A., F.R.S., F.C.S.; assisted by eminent contributors. Supplement: Longmans, 1872.

† "British Song-Birds;" a Practical Treatise on their Habits, Nidification and Incubation; the Mode of Rearing Young Birds, and their Treatment in Sickness and in Health. By Joseph Nash. London: W. Tegg, 1872.