

to admit that we expect very little new light. Hitherto our efforts have been devoted to bringing together the facts, and to arranging and comparing them, and we have as yet given but little consideration to this final question. It will, however, shortly engage our attention; and, in anticipation of this, we prefer to remain silent for the present, fearing that if we commit ourselves here to any preference for a particular view, we may find ourselves encumbered with a bias arising from the intensely human propensity to defend, through thick and thin, utterances which have once been formally given.

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EVERETT HAYDEN.

WAGNER'S ANNUAL REPORT ON THE PROGRESS OF GEOGRAPHY.

It is always with some impatience that we expect the publication of Wagner's report on the progress of geography (*Geographisches Jahrbuch*), because we know that we shall find there a full report of the work done in the field and in the study, and that we shall have a never-failing book of reference. We do not know of any similar publication, — except the fragmentary notes published by the Smithsonian institution and in the journals of many societies, — and therefore it is indispensable to the geographer. Though *Petermann's Mittheilungen*, the leading German geographical journal, contains regular reports on recent publications, their character is different from those in the *Jahrbuch*, the reports in the journal giving a more detailed review of the single publications, and being more disconnected. The list of reviewed books is consequently not so full as that of the annual report. The latter gives a comprehensive account of the work done during the last two years. The present volume is the eleventh of the series. The editor, Prof. H. Wagner of Göttingen, has preferred to divide the material, and to publish alternating volumes, one containing the various branches of geography, the other the progress of explorations, methods and teaching of geography, etc. Through this division, the book has increased in volume and the report has become more exhaustive. The present volume contains the special part, geophysics, geognosy, oceanography, climatology, geography of plants and animals, and ethnology. The place of the late Professor Zöppritz is taken by Dr. Hergesell and Dr. Rudolph; the former report on deep-sea explorations has been enlarged so as to cover all problems of oceanography, and is given

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by Professor Krümmel; F. Toula reports on geognosy; the other parts are in the hands of the same specialists who gave the valuable reports of former years.

In looking at the long series of reports, we find that each number served more satisfactorily the purpose of being a reliable book of reference to all interested in geography. At the present time there are few branches of geographical study which are not embraced in the book. The steady development of the plan, by dropping unnecessary parts, including in one part what belongs together, and adding new departments which had developed into important branches of science, encourages us to hope that within a few years the whole domain of geography will be represented in it. We should wish, for instance, to have an additional report on the history of geography. That on terrestrial magnetism is promised for next year. Among the important additions in the volume of 1887 is the first report of the geography of ancient Greece and the neighboring countries. The ancient geography of other countries, except that of the birthplace of our culture, is so little studied, that the contents of a biennial report would be very meagre. We hope, with the development of these studies, which are principally carried on by ethnographers, we shall find an account of these also. In 1882 Egli's reports on the study of geographical names, and S. Günther's on the theory of map-projections, were added to the book. We consider it a waste of time and work, that the Physical society of Berlin continues its reports on physical geography in the way they were given before the *Jahrbuch* had attained its present importance. It is true that they contain some material not included in the *Jahrbuch*, for instance, measurements of heights, etc.; however, these would far better find their place in the latter publication than in the reports on the progress of physics.

The rapid development of the *Jahrbuch* and the fact that every department is intrusted to the care of a specialist, make it an extremely reliable and useful book, which is a valuable help to the student of geography.

THE MECHANICS OF MACHINERY.

PROFESSOR KENNEDY is well known as one of the ablest among British workers in this field, and this volume contains a series of lectures delivered by him to his classes during the period of his connection with the University college, on a subject with which he is especially familiar. As was to be expected, the work is one of exceptional value.

The mechanics of machinery. By ALEX. B. W. KENNEDY. London, Macmillan, 16°.