the *Belgica* locality which is Passo del Cabeza del Mar, near Pecket Harbor, Strait of Magellan.

The members of the *Belgica* expedition are to be congratulated on the quantity as well as the quality of the results of their arduous labors in the field.

WM. H. DALL

The Subantarctic Islands of New Zealand. Reports on the geophysics, geology, zoology and botany of the islands lying to the south of New Zealand. Philosophical Inst. of Canterbury, Wellington, N. Z. Government printer. 1909. 848 pp., 4to, plates, text-figures and maps.

New Zealand is situated upon a submarine bank, roughly twenty degrees of longitude wide and twenty-five degrees of latitude long in a north-and-south direction within the 1,500-fathom curve. The islands of which this report treats, with the exception of the Macquarie group, are included within the 1,000-fathom curve together with the north and south islands of New Zealand proper. The most important groups are those of the Chatham, Bounty, Antipodes, Campbell and Auckland Islands. Only Macquarie and Campbell are within the northern limit of drifting ice, but the curve-enclosing sea bottom less than 2,000 fathoms in depth indicates a connection between the neozelandic bank, the Antarctic lands and Australia by way of Tasmania.

The climate of these islands is cold, wet and tempestuous, their coasts in large part inhospitable, with projecting reefs and dangers; and the record of shipwrecks and loss of life, or extreme privation of survivors, is most melancholy. Into these perilous waters the search for the fur seal and sea elephant drew many adventurers, a goodly number of whom hailed from the United States; and, while occasional fortunes were made, many ships and men suffered disaster.

The government of New Zealand has established depots of provisions and other necessaries on the principal islands, for the relief of shipwrecked mariners, and once a year the government vessel makes the round of the islands to supply or repair these depots and rescue any persons who may have reached these desolate shores. On the petition of the scientific societies of New Zealand, the authorities agreed to transport an exploring party to Auckland and Campbell Islands and to pick them up on the return trip in 1907.

The collections and observations thus made form the basis of two handsome volumes, consecutively paged, profusely illustrated, and edited by Professor Charles Chilton, of the University of New Zealand.[1] The government of New Zealand contributed a substantial sum toward the expenses of publication.

The fauna and flora of these isolated islands, seldom visited by man and into which only a few pests like rats and mice from whaling ships or sealers can have been unintentionally introduced, have a very special interest, not only on account of the modification the plants and animals have undergone, but for the light they may throw on the former distribution of Antarctic lands.

It is impossible within the space assigned to us, to discuss the several papers by specialists which are brought together in these volumes, but a brief list of the subjects treated will indicate their contents.

Following an account of the expedition and an historical survey of the islands we have articles on magnetics; on the radium content of certain igneous rocks; on the meteorology and geology of Campbell Island; on the physiography, geology, soil and soil formers of the various islands; on the vertebrates, mollusca and general entomology; special articles on macrolepidoptera, lepidoptera, hymenoptera, coleoptera, diptera, collembola, spiders, crustacea, polychæta, oligochæta, echinoderms, holothurians, planarians, nemerteans, leeches, myriapods, medusæ, actinians, sponges and foraminifera. In botany articles are provided on systematic and ecologic botany, plant formations and associations, grasses, algæ and cryptogams. A summary of the biological relations of the islands, by the editor, a bibli-

[1] The volumes may be had of Dulau & Co., 87 Soho Square, London, the agents of the Philosophical Institute of Canterbury, New Zealand.

ography, an excellent index and a general map of the Antarctic and sub-Antarctic regions concludes the work.

Much of the land mass of the islands is of igneous or granitic rocks, but fossils of tertiary age, in limestone, have been found on Campbell Island and all the conditions indicate the probability that all the islands formed part of a continental area connecting them with New Zealand. Wingless species or species with reduced wings are numerous among the insects, as might be expected.

In his general review the editor leans toward the theory of a great Antarctic continent in the warmer Tertiary time—with connections or close relations with Patagonia, South Africa and Australasia—as best explaining the distribution of animal and plant life now existing and the fossil remains which have been collected in the Antarctic and sub-Antarctic regions.

Wm. H. Dall

ANNUAL INTERNATIONAL TABLES OF PHYSICAL AND CHEMICAL CONSTANTS

At the International Congress of Applied Chemistry, held in London in 1909, an international commission was appointed with power to undertake the publication of "Annual Tables" containing all constants and other numerical data which may be of interest in physics, chemistry or in the technical applications of these sciences. The plans outlined by the commission received the endorsement of the International Association of Academies and the official recognition and financial support of many of the governments and learned academies of the world. Since its inception the commission has been enlarged and made more thoroughly representative of the various branches of science. It is now composed of twenty-five chemists and physicists representing the following countries: Austria, Belgium, Great Britain, France, Germany, Holland, Italy, Russia, Scandinavia, Spain, Switzerland and the United States.

Owing to the immense volume of scientific and technical literature which is continually being produced, the difficulties in the way of ascertaining whether any given measurement has been made or not are increasing year by year. Existing systems of indexing and abstracting offer only limited help, since a large number of measurements are made in the course of researches to which they are purely subsidiary, so that their existence can not be inferred from the titles and subtitles of the papers in which they are recorded. Also, tables which appear only at long intervals, such as those of Landolt and Börnstein, can of necessity cover only a small part of the ground and are never quite up to date. The "Annual Tables" should therefore fill a serious gap which has hitherto existed in the systematic indexing of scientific and technical results.

During the year 1910 all scientific publications which might contain material of value were systematically scrutinized by a large corps of abstractors. From the data thus obtained a volume of tables and bibliography is about to be published, covering the year 1910. The volume will form a valuable addition to the physical chemical tables which already exist and will, together with the succeeding annual volumes, prove a powerful aid to the work of the investigator, both in pure and applied science, and will enable him to find with ease those data which he may require and which it would be most difficult to obtain by individual search. Many important constants published in little used journals, or in papers which are inadequately indexed, will be saved from oblivion. Each value, given in the tables, will be accompanied by the name of the author, by a reference to the original paper and by an indication of the exact conditions under which the measurements were made. The text of the tables will be printed in English, German, French and Italian.

The committee urgently requests authors of scientific papers to cooperate with them by sending to one of their number (two) reprints of all articles published. This is especially desirable in the case of papers published in the form of theses, of government