NOTE.—Since the foregoing article was sent for publication, an important element is found to have been overlooked. This is the effect upon the coast current of the powerful westward thrust of globe-rotation, corresponding to that which causes the trade-winds and the equatorial currents. This thrust must begin to act with great power as soon as the coast current begins to move to the southward. Such thrust must absolutely forbid that great current to cling as it does to the coast from Alaska to southern California, unless some other force intervenes. This fact, therefore, constitutes an *absolute proof* that the source of the Pacific coast current is not from the Kuro Siwo, because as soon as that current should turn southward, it must at once be pushed by the globe rotation westward into the open ocean.

But this element of force proves much more. The fact that the coast current does actually move eastward of south, clinging to the eastward trend of the coast in opposition to the westward thrust to which it is subjected, demonstrates the presence all along its course of a very mighty source of eastward pressure. That source can be no other than the broad and massive current from the Antarctic pushing up from the deep sea under the easterly globe-thrust along the entire coast from Alaska to Los Angeles. As soon as that confining pressure is removed, the coast current turns westward, finally to unite with the equatorial current in the tropics.

I seem, therefore, to have the right to claim an absolute certainty for the theory that a cold current from the deep sea impinges against the American Pacific coast from Alaska to southern California. The vast body of cold water actually appearing there can by no possibility have moved from a northern source to the *eastward* of south, such direction being forbidden by the rotation of the globe. S. E. BISHOP.

MEMBERSHIP IN THE AMERICAN ASSOCIATION.

THE following persons have completed membership in the association since April 1, 1904:

Altamirano, Dr. Fernando, Instituto Medico Nacional, Esquina de Balderas y Ayuntamiento num 1202, Mexico, D. F. (53.) G.

Angle, Dr. Edward H., 1023 North Grand Ave., St. Louis, Mo. (53.) F.

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SCIENTIFIC BOOKS.

Sir William Henry Flower, K.C.B., F.R.S., LL.D., D.C.L., Late Director of the Natural History Museum, and President of the Royal Zoological Society. A Personal Memoir by Charles J. Cornish, M.A., F.Z.S. London, Macmillan and Co., Limited; New York, The Macmillan Company. 1904.

In reading this memoir of Sir William Flower we feel that his was preeminently a life of action, and we are impressed with his achievements rather than with his character. Not that Mr. Cornish has neglected this part of his work; in fact, the author seems to think that some might consider the personal element too pronounced, but that Flower accomplished so much. Aside from his knowledge, the author has drawn freely upon Flower's letters and published papers, while the first two chapters, dealing with his younger days, are written by Mr. Victor Flower, and Lady Flower contributes a charmingly written chapter on the latter portion of his life.

Educated for a surgeon, Flower joined the army during the Crimean war, and we learn that he showed conspicuous bravery under fire, was assiduous in his care of the wounded—though delighting in 'operations'—and ever desirous of improving the efficiency of the service.

From the portraits and context we gather that he was a man of fine presence, dignified, and courteous to all, and as he was of a sociable disposition, his friends were naturally many and included many of the most eminent men of the day.

Although successful as a surgeon, Flower's real work may be said to date from his appointment to the office of assistant surgeon at the Middlesex Hospital, which included the curatorship of the hospital museum. For, above all things, Flower was a 'museum man' in the widest acceptation of the phrase, and to him more than to any one else is due the educational character of modern museums. From his earliest youth he seems to have been destined for the position he subsequently held, and his crowning work at the British Museum was foreshadowed by 'the large, flat, shallow box' which he fitted with cardboard trays.

In December, 1861, he was appointed curator of the museum of the Royal College of Surgeons, a position he held for thirteen years, or until made director of the Natural History Museum, Flower being the first to bear that title, and here he remained until September 30, 1898, when he was forced to resign by failing health. Here it may be noted that the chapter dealing with his appointment is, in many ways, full of interest, as it contains many details relating to the growth and development of the British Museum which should be full of encouragement for museum officials on this side of the Atlantic. Those who know the British Museum only as it is, with its vast collections, magnificent and well-ordered exhibition halls and staff of efficient officers, may not know the long and difficult path by which these were attained nor realize that there was a time when the specimens were crowded and shabby and the staff decidedly underpaid. Flower may be said to have come in at the turn of the tide, when, after many years of struggle, a new building had been erected and the salaries of many of the officers substantially increased. Under his administration the collections steadily grew in number and importance, and while they all profited by his care, his immediate attention was given to the central hall whose exhibits form a comprehensive introduction to the study of systematic natural history. Here are to be found