

to place in Westminster Abbey a memorial tablet commemorating the life and influence of Mr. Herbert Spencer, but though the appeal was supported by many men of science and letters it was rejected. The reason why the Dean withheld his consent to this unobtrusive memorial of a great philosopher is not clear; and the *Daily Chronicle* has recently revived interest in the movement with the object of inducing him to reconsider his decision, or, failing this, to secure some other national memorial of Spencer's work. From the opinions of a number of distinguished men published in our contemporary, it is evident that much disappointment is felt at the failure to find a place in the Abbey for a simple memorial tablet to Spencer, but there is a difference of opinion as to whether steps should be taken to establish a national memorial to him in some other form. Among the men of science who consider it would be a reproach to leave Spencer's memory unhonored are Lord Avebury, Professor Clifford Allbutt, Dr. Bastian, Sir Michael Foster, Mr. Francis Galton, Sir Joseph Hooker, Professor M'Kendrick and Professor Poulton. There is, however, a strong feeling, expressed by Sir Norman Lockyer, that while no national memorial to Darwin exists outside Westminster Abbey, it would be undesirable to attempt to raise one to Spencer by public subscription. Lord Kelvin goes so far as to remark: "I have never been of opinion that the philosophical writings of the late Mr. Herbert Spencer had the value or importance which has been attributed to them by many readers of high distinction. In my opinion, a national memorial would be unsuitable." Sir William Huggins also hesitates to support a general movement to provide a national memorial, though he agrees that a memorial tablet in the Abbey would appropriately commemorate Spencer's work. In the absence of this form of recognition, it would seem that the best way for admirers of the philosopher to show their appreciation of his work would be to establish a lectureship or scholarship in sociology, natural science, or principles of education, to issue, as suggested by Dr. A. R. Wal-

lace, a cheap edition of his works, or in some other manner to further the objects to which he devoted his life. A movement with an end of this kind in view might be made of international interest, and would doubtless receive liberal support.

AREAS OF THE UNITED STATES, THE
STATES AND THE TERRITORIES.

THE question, 'What constitutes the area of the United States?' is discussed in Bulletin 302 of the United States Geological Survey, of which Mr. Henry Gannett is the author. Jurisdiction extends to a line three nautical miles from the shore, but this strip of sea can not properly be regarded as a part of the country. Supposing our country to be restricted to the sea and lake coast, there remains a question regarding the bays and estuaries. To what extent should the coast line be followed strictly, and where should we begin to jump across the indentations made by the sea? In this matter one can only follow his own judgment, making in each case as natural a decision as possible, as no definite criterion can be established. The absence of an absolute standard is in large measure the cause of the discrepancy between the tables of the Census Office, made in 1881, and those of the General Land Office, prepared in 1899, both of which show the areas of the United States and of the several states and territories.

The measurements and computations upon which these tables were based were made with great care and thoroughness in each case, and the results probably represented the areas as closely as they could be determined from the maps and charts in existence at both times. Most of the differences in these two sets of tables are trifling, amounting to only a few square miles or a small fraction of one per cent., being well within the limits of error of the planimeter and of the maps used. Some of them, however, are considerable, and a few are explained by the fact that more recent maps, which changed the position of boundaries between states, had been used by the Land Office, and its measurement was, therefore, more nearly correct. Other discrepan-

cies arose from differences in determining the coast lines.

Realizing the desirability of but one government statement of areas of the states and territories, an attempt has been made by Mr. Frank Bond, chief draftsman of the General Land Office; Mr. C. S. Sloane, geographer of the Census Office, and Mr. Henry Gannett, geographer of the Geological Survey, to come to an agreement on these figures. The results of their conference and cooperation are set forth in the aforementioned bulletin.

By this adjustment the area of the United States proper, which is given as 3,026,789 square miles, is increased over the Census Office figures by 1,188 square miles.

The area given for Alaska is 590,884 square miles. It is subject to considerable modification in the future as the position of the coast line becomes better known. The area given for the Philippine Islands is 115,026 square miles, and was determined by the Coast Survey of that archipelago, prepared at the instance of the Philippine Census. It also is subject to modification as accurate charts of the archipelago are made. The areas of Hawaii, 6,449 square miles, and Porto Rico, 3,435 square miles, are probably subject to only slight changes, as the charts from which they were measured are quite accurate. The areas given for the other small possessions of the United States, Guam, 210 square miles; Samoa, 77 square miles, and the Panama Canal strip, 474 square miles, will probably be changed in the future as their limits become more correctly defined.

SCIENTIFIC NOTES AND NEWS.

At the last meeting of the Rumford committee of the American Academy of Arts and Sciences, the following grants for research were made: \$300 to Professor Arthur A. Noyes, of the Massachusetts Institute of Technology, for the construction of a calorimeter for the determination of heat reactions at high temperatures; \$200 to Professor Robert W. Wood, of Johns Hopkins University, for the continuation of his researches on the optical properties of sodium vapor.

MR. ALFRED AKERMAN, state forester of Massachusetts, has resigned to accept the Peabody chair of forestry recently endowed in the University of Georgia. He is succeeded by Professor Frank Wm. Rane, professor of horticulture and forestry at the New Hampshire College. Mr. Rane's present address is, Room 7 State House, Boston, Mass.

MR. GEORGE A. COLEMAN, M.S. (Stanford, '05), has been appointed forest supervisor in charge of the Shasta Reserve.

DUDLEY MOULTON, M.S. (Stanford, '06), at present stationed in Nebraska investigating the codlin moth, has been appointed field assistant in the U. S. Bureau of Entomology.

PROFESSOR MANSFIELD MERRIMAN, Ph.D., head of the department of civil engineering, of Lehigh University, has been granted a year's leave of absence. He will reside in South Bethlehem and will attend to the administrative duties of his department.

A COMPLIMENTARY luncheon to Professor Ronald Ross, C.B., Professor R. Boyce and Dr. J. L. Todd, in recognition of the decoration recently conferred on them by the King of the Belgians for the work done by the Liverpool School of Tropical Medicine, was given on October 1 by the Lord Mayor of Liverpool.

PROFESSOR RAYMOND H. POND, of the Northwestern University, has been awarded a research scholarship at the New York Botanical Garden for six months, beginning October 1.

THE Duke of Abruzzi is planning an expedition to the Himalaya Mountains.

DR. JOHN GIFFORD is now engaged in delivering ten lectures on 'Tropical Pomology,' at Cornell University.

M. PIERRE JANET will shortly give a course of fifteen lectures at the Harvard Medical School on 'The Symptoms of Hysteria.'

THE Harvey Society of New York announces its second course of lectures. These are given at the Academy of Medicine building, 17 West 43d Street, on Saturday evenings at 8:30 P.M. The lectures are open to the public and all interested are cordially invited to attend. The program for the year is as follows: