the Railway convention, held in Philadelphia, Oct. 9, and reciting the importance to railroads of retaining this meridian. The resolution to adopt Greenwich was then passed with only one dissenting vote, that of San Domingo, France and Brazil not voting.

Mr. Rutherford then introduced a resolution to count longitudes in two directions from Greenwich up to 180°, east longitude being plus, and west minus. This was favored by the delegates from Great Britain and Russia, and opposed by Commander Sampson, the latter advocating the plan of counting only in one direction, from 0° to 360°, as simpler. This plan was also favored by the delegate from Sweden, Count Lewenhaupt, who moved to adopt the fourth resolution of the Roman conference, counting longitude continuously through the whole 360°. Pending further discussion, the conference adjourned till Tuesday at one o'clock. On Tuesday the discussion was continued, and the resolution offered by Mr. Rutherford passed by a small majority.

SEMITIC NOTES.

AN interesting collection of oriental antiquities has been brought to this country by Mr. Bernhard Maimon. The collection consists of bronzes, lamps, manuscripts, seals, and an Assyrian barrel-cylinder with inscription. Mr. Maimon offered it for sale at one thousand dollars, but, finding no purchaser for the whole, he leaves the seals and cylinder in the Metropolitan museum in New York, and has sold the other objects to Professor Marquand of Princeton, N.J.

Information dated London, Sept. 28, has been received, that Dr. W. H. Ward, the leader of the Wolfe expedition to Chaldaea, would set out the following week for Constantinople. Here he hopes to be joined by Dr. Sterrett, who has returned to Constantinople from his extensive tour in Asia Minor. From Constantinople the party will perhaps go by Alexandretta, Aleppo, and Mosul, reaching Bagdad toward the close of November. The months of December, January, and February are those most favorable for a visit to Chaldaea; and the Wolfe party expects during this time to accomplish its task. During his stay in London, preparatory to his trip to Chaldaea, Dr. Ward spent his time in the British museum, studying the Assyrian antiquities, and specially acquainting himself with those which are forged. Cylinders are so valuable, that a flourishing business is done in forgeries by some of the enterprising orientals; but the practical eye can always detect traces of the forgery. Usually a mould is made from a genuine cylinder, and the forgery is cast in this mould. The joining of the two halves of the cast cannot be successfully concealed.

Mr. J. R. Jewett, who graduated at Harvard last year, is now in Beyrout, Syria, engaged in the study of modern Arabic. His favorite studies during his last two college-years were the Semitic languages.

D. G. LYON.

TURNER'S SAMOA.

Samoa a hundred years ago, and long before, together with notes on the cults and customs of twenty-three other islands in the Pacific. By GEORGE TURNER, LL.D., of the London missionary society; with a preface by E. B. TYLOR, F.R.S. London, *Macmillan*, 1884. 16+395 p. 12°.

THIS work was prepared under very exceptionable circumstances favorable to its value and accuracy. The author published, in 1861, a volume entitled 'Nineteen years in Polynesia,' which was chiefly directed to narrate the introduction of Christianity into, and the missionary work in, the group of volcanic islands in Central Polynesia, long known as Navigator's Islands, but correctly called Samoa. In the present volume he abandons the missionary style, as well as its subject; and gives the result of his miscellaneous researches for upwards of forty years. He has clearly apprehended the desiderata in the presentation of the results of ethnological research: i.e., he has confined himself almost exclusively to the detail of facts, classified so as to assist students, but has left to specialists all promulgation or advocacy of theories. The result is that very few works are of greater value in assisting the study of comparative ethnology, or in the solution of problems in physiology, mythology, history, and philology.

The volume, being a repertory of an immense number of details in all branches of anthropology, affords little opportunity for such quotation as would give any true idea of its value. It must rather be regarded as a brief encyclopedia of the various titles to which the sociologist, the linguist, the student of folk-lore, the physiologist, and indeed all persons interested in the several divisions of anthropology, can turn with profit. The mythic traditions and the folk-lore constitute, to the general reader, perhaps the most attractive part of the work. In this connection it may be proper to offer a slight criticism.

In the cosmical genealogy, an early character is called 'Valevalenoa,' or, as translated, 'Space.' This deity had a long-legged seat; and, after a time, 'Cloudy Heavens' brought forth a head, which fell from the heavens. 'Space' set it up on his high stool, and said to it, 'Be a son, be a second with me on the earth.' Space started back, for all of a sudden the body of a man-child was added to the head. The child was sensible, and inquired who his father was. Space replied, "Your father is yonder in the east, yonder in the west, yonder towards the sea, yonder in the land,

yonder above, and yonder below." Then the boy said, "I have found my name: call me 'All the sides of heaven.'" The point for criticism is, that, while the name the boy bestowed upon himself is strictly in accordance with the philosophic status which the Samoan (as well described by the author) had reached, the name or title 'Space' is wholly inappropriate to that status.

What may be the proper translation of the native word 'Valevalenoa,' or whether it can be translated, it is not possible for us to determine; but it does seem clear that the metaphysical conception of 'space' could not have been made by the Samoans.

The genealogical table of the divinity gives 'Tangaloa, the explorer of lands,' as his father, and the 'Queen of earth' as his mother; and 'Tangaloa, the explorer of lands,' was the progeny of 'Tangaloa, the dweller of lands,' as his father, and 'Cloudy Heavens' as his mother; also the parents of 'Tangaloa, the dweller of lands,' were 'Cloudless Heavens' for father, and the 'Eighth Heavens' for mother. After that amount of definiteness, it would not be probable that in an attempt to commence from the first of all, Leai (nothing), and arriving at what might be called the practical account of the earth itself, and its deities, one would be constantly encountered with the conception of 'Space' as the progeny of the foregoing. It is true, that, from a metaphysical point of view, space might as well proceed out of nothing, as nothing out of space; but with the intermediaries mentioned, it would not be in accordance with the general lines of savage cosmogony to have started with nothing, and through a respectably elaborate family tree to have arrived at practically the point of departure.

An instance of light is thrown upon a problem which has for some time occupied physiologists. We refer to the subject of prehistoric trephining as explained by an account of the manner in which headache was cured, confirming the theory of Dr. Fletcher in his address before the anthropological society of Washington in 1881, that the prehistoric trephining was to relieve disease of the brain. The operation was to let out the pain at the crown of the head by the following surgery. The scalp was slipped up and folded over, and the cranial bone scraped with a fine-edged shell until the dura mater was reached. Very little blood was allowed to escape. In some cases the scraped aperture was covered over with a thin piece of cocoanut-shell; in other instances the incised scalp was simply replaced. This is perhaps the first instance in which savage trephiners have been caught in the act with operations on the scale of a custom. The cure was death to some, but most of the cases recovered. To such an extent was this remedy for headache carried on, that sharp-pointed clubs were specially made for the purpose of striking that known weak part of the crown of the head, causing instant death.

The precise operation of trephining has not been found to be practised among the tribes of North America; but they very generally scarified and wounded parts of the body where pain was seated, or supposed so to be. Their philosophy of pain was, that it was an evil spirit which they must let out. The early writers, who believed in the benefits of phlebotomy more than is now the fashion, gave much credit to the Indians for this practice. It was one of the proofs of their advance in medical and surgical science. It is suggested that the custom of cutting the breast, arms, and some other parts of the body, at the mourning ceremonies, may have originated in the idea of letting grief, the pain of sorrow, out of the mourner.

The principles of the taboo are made very clear and expressive by the tale of the devices by which property was protected. For instance, to protect the bread-fruits, the owner would plait some cocoanut leaflets in the form of a sea-pike, and suspend it from one or more of the trees which he wished to protect. The thief would be frightened from touching the tree; expecting, the next time he went to the sea, a sea-pike would dart up, and mortally wound him. Another of the instances is the cross-stick taboo, a piece of any sort of stick suspended horizontally from the tree, expressing the imprecation of the owner that any thief touching it might have a disease running right across his body and remaining fixed there until he died. This is recommended as a contribution to the literature on the mysticisms of the cross.

The interesting subject of tattoo marks is also dwelt on with more than usual information. Reference is made to the mistake of Behrens in describing the natives of Samoa in his narrative of 1772, when he stated that "they were clothed from the waist downward with fringes and a kind of silken stuff, artificially wrought." A nearer inspection would have shown him that the fringes were a bunch of red leaves glistening with cocoanut-oil; and the kind of silken stuff, the elaborate tattooing. An interesting point is the worship of the octopus, or cuttle-fish, which may be compared with its

frequent appearance in the tattoo marks and religious customs of the Haida and other Indians of the north-west coast of America.

The author, not confining himself to the group of the Samoan islands in his forty years' experience, made notes upon the cults and customs of twenty-three other islands in the Pacific Ocean, which are published in this volume. Among these, with reference to the island Nukufetau, is found a singular reversal of the premium on families given by Roman law, and the merit generally attributed, in communities untaught by Malthus, to the production of numerous offspring. Infanticide there was the law of the land. Only one child was allowed to a family. Under special circumstances, and by paying a fine, a second might be allowed to live.

On the whole, and in general terms, without further attempt at quotation, the volume can be strongly recommended as being illustrative of the stage of ethnic life comprehended in it, and as almost above criticism.

THE HOME RAMBLES OF AN AMERICAN NATURALIST.

A naturalist's rambles about home. By C. C. Abbott. New York, *Appleton*, 1884. 485 p. 12°.

It is not often that one can sit down and become so absorbed in a book that he ceases to be critical. It is in this condition that we lay down Dr. Abbott's charming volume. We do not know whether some of his statements need qualifying or not. We do know, however, that the author is an accurate observer, and, furthermore, that he lives amid the scenes and experiences so graphically described. The three beeches, woodshed, fences, etc., do exist, and belong to Dr. Abbott's homestead. The author has been known to the reading public for many years by his articles in the *Popular science monthly*, *American naturalist*, and *Science*. He is more widely known by his being the first to discover paleolithic implements in North America, and as the author of the work entitled 'Primitive industry.'

The present book is, as the title indicates, the rambles of a naturalist about home. The sights and scenes are so well depicted with pen that illustrations are not needed, and the author has had the good sense not to attempt them. Nothing but a sensitive-plate, timed to the fraction of a second, would be of any use in such service. Speaking of a white weasel, he says, 'It fell into the hands of a taxidermist, and was lost to science.' Such a fate often awaits the exploits he describes when they fall into the hands of an artist.

Many new and interesting facts are given concerning the habits of wild animals, and at the same time he corrects a host of erroneous observations that have gone unchallenged for many years, because no one competent for the work has given the time and patience necessary to the study. His glimpses of wildcats, and the fight between a turtle and mink, are curious experiences, and his observations of the skunk are extremely interesting. He alludes to the peculiar power of the skunk as causing an 'atmospheric disturbance'! The rapidity with which a skunk burrows in the ground is quite a new fact. He shows how untrustworthy most weather-lore is, as based on the habits of animals, though he admits that chipmunks appear to foresee the occurrence of a cold rain twenty-four hours in advance. He also shows — it seems to us conclusively — that the opossum does not 'play possum,' and that its supposed power of feigning death is the result of paralysis from fear.

He believes that the gambols and antics and various curious behaviors of animals are evidences of play and fun, as in children, and that in no other way can such behavior be explained. Even among fishes has he observed movements that must be referable to the same desire. We can commend the book most heartily to all lovers of nature. It is a book to be put into the hands of every boy, and we should like to see it adopted in our schools as an occasional reading-book.

THE LIFE OF ELLEN WATSON.

A record of Ellen Watson. Arranged and edited by Anna Buckland. London, *Macmillan*, 1884. 6+279 p. 8°.

Ellen Watson's claim to remembrance does not rest upon what she did, but upon the promise she gave of what she might have done had her life been longer. At the age of twenty she entered University college as the first woman-student in mathematics and physics. Professor Clifford soon formed a very high opinion of her mathematical ability, and believed that she possessed a rare faculty for original work. In the examination which was held at the end of the year, he was careful not to allow his judgment to be influenced by the fact of her youth and sex; and the most strict examination of her papers gave her the highest number of marks gained by any of the class, and placed her in the position of first