undulating country extends up to the ridges of the Owen Stanley Range. They are unacquainted with the use of iron, and, though friendly disposed towards white men, could not be persuaded to exchange their spears, adzes of jade and basalt, etc., for hardware or other articles.

The border of Dyke Acland Bay is occupied by a group of villages to which Sir W. Macgregor gave the name of Oro; but, as it was derived simply from the words used by the local guide on approaching the shore, there is some doubt whether it is a tribal name or not. These villages are situated amidst the forest and grassland sloping down from the Hydrographer's Range, the spurs of which are inhabited by a population of about 3,000. At the eastern extremity of Dyke Acland Bay lies Cape Nelson, remarkable for its numerous indentations, some of which, such as Maclaren Harbor and Port Hennessy, so named by Sir W. Macgregor, are excellent havens of refuge for shipping. Within the perimeter of this cape lie two mountains, -- Mount Trafalgar, rising to a height of some 4,000 feet; and, to the south of it, Mount Victory, probably 3,500 feet high. The latter is an active volcano; for in the early morning steam was observed rising from its two crests, and from a ridge at a lower elevation, and, as the day advanced, the whole top of the mountain became obscured by dense exhalations. Whereas Mount Trafalgar is clothed to its summit with forest, the volcano is precipitous, and crowned with masses of bare rock. Another large inlet, Collingwood Bay, lies between Cape Nelson and the next promontory, which terminates in the two headlands, Kibirisi Point and Cape Sebiribiri (or Vogel).

On the western shore dwells the Maisina tribe, in villages of inferior construction. The houses hold only one family each, and their roofs project to about three feet from the ground, thus forming verandas. These natives also are unacquainted with iron and tobacco, and adorn themselves with the usual ornaments of feathers, shells, and dog's teeth. The country towards the interior is low, and densely covered with forests, in which the *casuarina* is conspicuous. Several villages stud the coast between Kibirisi Point and Cape Sebiribiri; and opposite one of them, named Kapikapi, rise two singular masses of coral, probably eighty feet high, on each of which stand about a dozen houses. These, being stocked with spears and approached by wooden ladders, removable when necessary, are probably used as strongholds.

After Cape Sebiribiri, Goodenough Bay is reached, stretching to East Cape on Ansell's Peninsula, — a district that has gained a sad notoriety from the murder of Capt. Ansell and the destruction of the "Star of Peace" in 1888. The head of the bay is interesting from the miniature plateaus, elevated about 300 feet above the sea-level, of which the land is composed, and which have been formed by the soil washed down from the ravines in the background. The climate of this part of New Guinea is probably healthy; but the absence of navigable rivers would prove a great obstacle to the cultivation of suitable lands in the interior, if such should be found.

Sir W. Macgregor also visited the Trobriand, Murua (Woodlark), and Nada (Lauchlan) Islands, situated far away to the north and north-east of East Cape, between the parallels of 8° 25' and 9° 23' south latitude, and the meridians of 150° 30' and 153° 40' east longitude. Nada is a group of islets, about nine in number, forming an atoll, with a lagoon seven to twelve fathoms deep, and is inhabited by 169 natives. Murua, to the west of Nada, is about thirty-eight miles long, and possesses a good harbor. The natives have entered the iron age, and have abundance of food, consisting of yams, taro, and sweet-potatoes. The Trobriand Islands lie to the north-west of Murua. The whole group is of coral formation, and is densely covered with forest, and the fertility of the soil is indicated by the abundance of cultivated The natives also catch large quantities of fish. They were food. very friendly with Sir W. Macgregor's party, and very eager to trade. These islands are so much more important in extent and population than had been reported, that several weeks might be spent in thoroughly exploring them.

WALTER DAMROSCH has set Lord Tennyson's poem to music in last week's *Truth*.

#### BOOK-REVIEWS.

Primitive Folk-Studies in Comparative Ethnology. By ELIE RECLUS. New York, Scribner & Welford. 8°. \$1.25.

Few writers on science, and none on geography, command a more attractive style than Reclus. His vast reading supplies him with a wonderful wealth of analogy; he is never dull; and his philosophizing, which he is not shy to offer, is fresh and progressive.

In the volume before us he undertakes a study of the sociology of half a dozen "primitive" or savage nations, the avowed object being to furnish from them a picture of the condition of man in general in prehistoric ages. Of these half-dozen nations, two are selected from America,— the Eskimos or Inuits, and the Apaches, — while the other examples are from India, as the Nairs, the Kolarians of Bengal, and the tribes of the Neilgherry Hills.

The ethnography of the American portion leaves considerable to be desired. The author includes in the Eskimos the Chukchis (Tchouktches) of Siberia and the Koloschs of the North-West Coast, neither of whom are in any way related to the Inuit. He further speaks of the Kolosches as distinct from the Tlinkits, though these are merely two names for the same people. In enumerating the Apache tribes (p. 123) he confuses them with the Yumas, who belong to a wholly different stock, and again with the Pah-utes (p. 140), who are distinct from both. These unfortunate errors throw a shade of inaccuracy over his descriptions, because, though correct in themselves, they do not always apply to the peoples whom he sets out to depict.

His authorities are usually carefully selected, and his quotations highly illustrative. A tendency to force into prominence certain sociological theories is perhaps visible. Thus, the doctrine of primitive communal marriage is evidently one he holds in high esteem, and seeks to support by all the evidence possible. Much that he adduces to this effect would bear another interpretation. The observations (pp. 69, 70, and elsewhere) on the strange relations which have ever existed between the sexual passions and the religious sentiments are very suggestive, and deserve further expansion and analysis.

Of these studies, that on the Kolarians of Bengal is perhaps the most vivid, and, though it is the last in the book, the reader may profitably begin with it, in order to learn promptly the style and resources of the author.

### AMONG THE PUBLISHERS.

BULLETIN No. 73 of the North Carolina Agricultural Experiment Station is on agricultural grasses best adapted to North Carolina soil and climate.

— A novelty in periodical literature is the *Kings' Jester*, the first number of which has just appeared. It is devoted to the wit, humor, art, and advantages of advertising, and is published by Herbert Booth King & Brother, the well known advertising agents of this city.

--- Messrs. Macmillan & Co. announce as among their publications this summer a "Text-Book of the Developmental History of the Vertebrates," by Dr. Oscar Hertwig, professor of comparative anatomy in the University of Berlin, translated and edited by Dr. E. L. Mark, professor in Harvard University, fully illustrated; also a "Text-Book of the Developmental History of the Invertebrates," by Drs. Korschelt and Heider of Berlin, translated under the supervision of Dr. E. L. Mark of Harvard, fully illustrated.

— Darwin's book on "The Structure and Distribution of Coral Reefs" has been issued as one of the Camelot Series by Walter Scott of London, the New York publishers being A. Lovell & Co. The edition includes an introduction by Joseph W. Williams. As the price is low and the volume attractively made up, the book is worth examining by those interested.

- Part II. of Whiting's "Short Course of Experiments in Physical Measurements" has just been issued, and covers measurements in sound, dynamics, magnetism, and electricity. Mr. Whiting was for some years connected with the Jefferson Physical Laboratory of Harvard College, and this work embodies the results of his experience in teaching physical measurements to the Harvard students.

-In "Domestic Science," by James E. Talmage, Ph.D., published by the Juvenile Instructor Office, Salt Lake City, Utah, the author has attempted to bring together in a simple manner such topics as have a direct bearing upon the science of domestic operations. His object has been to direct attention to daily household affairs, and we think he has treated his subject with fair success.

- Messrs. Ginn & Co. announce to be published in the summer of 1891, "The Prometheus Bound of Æschylus, with the Fragments of the Prometheus Loosed," with introduction and notes by N. Wecklein, rector of the Maximilian Gymnasium in Munich, translated by F. D. Allen. The book is a translation, with some freedom as to form of expression, of Wecklein's second edition (1878). A few changes in text and commentary have been requested by the German editor, and references to American grammatical works have been added by the translator. The copious explanatory commentary is followed by a critical appendix.

-Messrs. Ginn & Co have published a small volume entitled "A Primer of Ethics," designed as an instruction-book and monitor for children. It is really a new edition of "The Rollo Code of Morals," published many years ago by Jacob Abbott; but the original work has been revised, with additions and omissions, by Benjamin B. Comegys. It treats of all those phases of morals which it is most important for young people to understand, and for the most part in a simple and attractive style. In a few passages the distinctions drawn are perhaps a little too fine for the learner's comprehension, and some of the definitions are hardly plain enough; but the great number of illustrative examples aid in making the subject clearer. In its new form the book deserves a new career of usefulness.

— Statements having been made in Paris affecting the authenticity of Marie Bashkirtseff's "Journal," says *The Publishers Weekly*, M. André Theuriet writes to the *Temps* that Marie's mother brought him the whole of the journal of her daughter, from 1873 to almost the eve of her death; and he undertook, too good-naturedly, to edit it, because implored to do so, and in memory of his dear friend Bastien Lepage. He consulted the Bashkirtseff family as to the cutting-out of oft-repeated passages, childish nonsense, tedious descriptions of toilets, and unpleasant reflections upon other persons. After this pruning, there was enough of the original matter to fill two volumes.

- In the fall of 1889, as stated in The Publishers' Weekly, the American Secular Union, a voluntary association having for its object the complete separation of Church and State, in practice as well as in profession, and in no way committed to any system of religious belief or disbelief, offered a premium of one thousand dollars for "the best essay, treatise, or manual adapted to aid and assist teachers in our free public schools and in the Girard College for orphans, and other public and charitable institutions professing to be unsectarian, to thoroughly instruct children and youth in the purest principles of morality without inculcating religious doctrines." The committee chosen to examine the numerous manuscripts submitted in competition included Richard B. Westbrook, LL.D., president of the Secular Union, Felix Adler of New York, and Dr. D. G. Brinton of Philadelphia. On its recommendation, the prize has been equally divided between the two manuscripts considered the best. The successful authors are Rev. N. P. Gilman of West Newton, editor of the Literary World of Boston, and Mr. Edward P. Jackson, one of the masters of the Boston Latin School.

- Herbert Spencer's views on state socialism are contained in an article entitled "From Freedom to Bondage," which will open the April *Popular Science Monthly.* This is probably the strongest refutation of socialistic theorizing that has yet appeared. The subject of street-cleaning in large cities will be treated in the

same number by Gen. Emmons Clark of New York. The article will include explicit practical suggestions for the proper performance of this important work. The battle between Professor Huxley and the defenders of theology is still going on. There will also be an essay by the Duke of Argyll, entitled "Professor Huxley on the War-Path," in which the professor is charged with treating theological questions inconsistently with his treatment of scientific subjects. "What keeps the bicycler upright?"—a question that is often asked — will be answered in an illustrated article by Charles B. Warring.

- Messrs. F. Warne & Co., New York, inform us that they will shortly issue the English edition of Major Casati's work, which will be published in two volumes, containing nearly two hundred original illustrations and several valuable maps. The period embraced by the work extends from a date prior to Gen. Gordon's appointment as governor-general of the Soudan to the return of Mr. Stanley's expedition. Major Casati, who was resident among the native tribes south of Khartoum and in various parts of Central Africa during the rise of Mahdism, gives valuable information as to the political situations there during the early stages of the revolution, and a most interesting account of the fall of Khartoum and the death of Gordon. Of the ten years of his stay in the Equatorial Provinces, he passed a series of years with Emin Pacha, whose full confidence he enjoyed; and, being the only European officer present during the latter years of Emin's governorship, he had exceptional opportunities for gaining information and forming an independent judgment on the political and other mysterious questions in connection with these provinces.

-G. P. Putnam's Sons will publish at once, in their series of Questions of the Day, "The Question of Copyright," a volume comprising the following material: (1) the text of the new copyright law of Feb. 4, 1891, which, under reciprocity arrangements. secures American copyright for aliens, and foreign copyright for Americans; (2) the text of the copyright law of July 8, 1870, now superseded; (3) the present copyright law of Great Britain; (4) the amended copyright law as recommended by the British Parliamentary Commission of 1879; (5) the amended copyright law as recommended by the British Society of Authors in 1891; (6) an analysis of the Royalty Scheme of Copyright (recommended by Mr. R. Pearsall Smith, Sir T. H. Farrer, and others); (7) the International Copyright Convention as ratified at the Berne Conference, Sept. 5, 1887; (8) report of the International Copyright Convention of South America, held at Montevideo, Jan. 11, 1889; (9) Henry Clay's report on copyright, domestic and international, Feb. 16, 1837; (10) "The Evolution of Copyright," by Brander Matthews; (11) "Literary Property," by G. H. Putnam; (12) "The Influence of International Copyright on the Price of Books," by Brander Matthews and G. H. Putnam; (13) "Copyright Monopolies, and Protection," by G. H. Putnam; (14) "The Nature and Origin of Copyright," by R. R. Bowker; (15) "Development of Statutory Copyright in England," by R. R. Bowker; (16) summary of copyright legislation in the United States; and (17) summary of the terms of copyright in the different countries of the world.

— In Lippincott's Magazine for April, "The Elizabethan Drama and the Victorian Novel," an article by T. D. Robb, institutes a comparison between the Elizabethan and the Victorian views of life and art. In "Yarns about Diamonds," in the same magazine, David Graham Adee relates some interesting facts about diamonds in general, and tells many stories relating to the discovery and history of some of the most famous of these gems, such as the

Great Mogul," the "Braganza," the "Regent," the "Crown of the Moon," the "Star of South Africa," and many others; and Charles Morris, in an article entitled "New Africa," tells how nearly the whole African continent has been taken up by European nations.

-In The Chautauquan for April we note "The Intellectual Development of the English People," by Edward A. Freeman; "Life in Modern England," I., by J. Ranken Towse; "British America," by Professor A. P. Coleman; "The Referendum in Switzerland," by J. W. Sullivan; "Studies in Astronomy," VII., by Garrett P. Serviss; "Dreaming," by Flavel Scott Mines;

son Sawtelle. - In the first of the steamship articles in the April Scribner, John H. Gould says, "From the records kept in the Barge Office in New York City, it appears that ocean travel varies according to the business situation in this country. Following is an exhibit of the number of cabin passengers that arrived at this port during the years between 1881 and 1890, inclusive: 1881, 51,229; 1882, 57,947; 1883, 58,596; 1884, 59,503; 1885, 55,160; 1886, 68,742; 1887, 78,792; 1888, 86,302; 1889, 96,686; 1890, 99,189. From one point of view, at least, these figures are very striking. In 1889 there was a great show in Paris that attracted world-wide attention and interest. In the spring of that year every steamship agent announced to prospective passengers that all vessels would be crowded, and that the volume of passenger traffic between the continents would swamp the capacity of every line. But the figures speak for themselves. Viewing the increase of oceanic travel, it appears that the financial depression of 1884 kept many people at home who otherwise might have crossed the ocean. After that distressing season had passed, travel resumed its nor-

Marriage affects a Woman's Wages or Business," by Lelia Robin-

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mal condition, and an increase may be noted with each year." Birge Harrison (the American artist, now in Australia) describes a kangaroo-hunt in the same issue. This curious animal has been practically exterminated in the older parts of Australia. The author says, "In some parts of Victoria they formerly outnumbered the sheep as two to one; and old shepherds have told me that it was not an uncommon thing to see the sheep and the kangaroos feeding together upon the plains, as many as two or three thousand kangaroos frequently accompanying a flock of a thousand sheep. Thus it will be seen that a 'station' which, in 1850, could barely graze five thousand sheep, can now be made to carry forty thousand without any danger of overstocking." Professor Thomas Dwight of the Harvard Medical School discusses "What is Right-handedness ?" Rev. Willard Parsons, manager of the Tribune Fresh-Air Fund, tells the story of its growth and work for fourteen years. From the diaries of Capt. Stockton, United States Navy, and from conversations with him, Robert Gordon Butler tells the story of the remarkable Arctic cruise of the United States steamer "Thetis" in 1889, when she was sent to relieve any vessels of the North Pacific whaling-fleet in distress, to rescue shipwrecked sailors, and to erect a house of refuge at Point Barrow, the northernmost point of Alaska.

- "Lessons in Applied Mechanics," by James H. Cotterill, F.R.S., and John Henry Slade, R.N., just published by Macmillan & Co., consists in great measure of selections from the matter

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## MARCH 20, 1891.]

# SCIENCE.

contained in "Applied Mechanics," a larger treatise on the same subject, by Professor Cotterill of the Royal Naval College, Greenwich, It may therefore be described as an abridged edition of the previous work. The abridgment, however, has been completely re-arranged and re-written in fuller detail where necessary for the purpose of the work: consequently it may be considered as virtually a new book, smaller in compass and more elementary in character than the larger treatise upon which it was modelled, and to which it may serve as an introduction. To junior students of engineering, and others beginning the study of the subject, the book will prove valuable, as the plan of arrangement and method of treatment admirably adapt it to their requirements.

- Messrs. Ginn & Co. announce "Essential Uses of the Moods," by Robert P. Keep, principal Free Academy, Norwich, Conn., revised by John C. Rolfe, professor of Latin, Michigan University. The object of this pamphlet is to present in simple language the correspondences and differences in the uses of the moods in Greek and Latin. The pamphlet was first issued in 1879. A second edition was called for in 1882. From that time there was a steady sale for the little work until two years since, when the plates were melted in a fire. Other occupations of the author have delayed the preparation of a new edition until now. The delay has been in the end no disadvantage, for the pamphlet has been in various ways improved. Among the additions may be mentioned full references to the Latin and Greek grammars in most common use. These references are placed in the margins, and will bring the pamphlet into clear relation to the grammars which the pupil has used in his previous study.

- The April number of the "Annals of the American Academy of Political and Social Science" will contain an economic article by Professor Tuttle of Amherst College on "The Concept of Wealth;" also an article by Mr. F. W. Holls of New York on "Compulsory Voting as a Means of reforming Political Abuses," and one by Dr. R. P. Falkner on "The Universities of Italy."



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