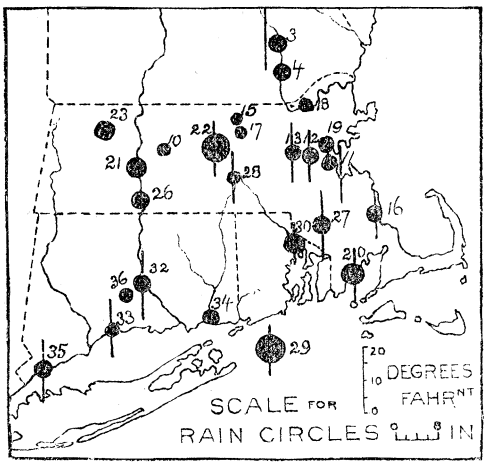
of the Bible, and the institution thus found has been taken as a type of that discovered in other parts of the world. Agnatic descent is one of the characteristics of patriarchy, but it may exist under states of society where the patriarchy does not exist; and to use the term 'patriarchy' as synonymous with agnation can but lead to confusion. Then, by analogy, he uses the term 'matriarchy' to signify descent in the female line, and the confusion is still worse; for, so far as we know, the mother is never the ruler of the clan, where uterine descent is established. In some cases the ruler is the uncle. The etymology of the term 'patriarchy,' and customary use, alike imply chieftaincy. The terms 'agnatic descent' and 'uterine descent' have no false implication, and properly express the facts.

J. W. POWELL.

NOTES AND NEWS.

THE New-England meteorological society, of which brief mention has been made in earlier numbers, has now advanced far enough to issue for November the first number of its monthly bulletin. This summarizes the results of thirty-six stations, mostly maintained by volunteer observers, comparing them with records of previous years in a tabular



RAINFALL AND RANGE OF TEMPERATURE IN SOUTHERN NEW ENGLAND FOR NOVEMBER, 1884.

numerical statement, and presenting data concerning precipitation, and range of temperature, in a sketch-map, the southern half of which is here reproduced. Measures of rain and melted snow are represented by black circles, while the mean daily range of temperature is indicated by vertical lines. Scales for the reading of both are added in the margin. The small size of the map gives it the appearance of being fairly well supplied with stations; but in reality they are as yet much too far apart to furnish satisfactory basis for studies of a detailed character. Even around Boston, where the greatest density of observation is found, there is need of additional observers before the society should consider its list of stations sufficiently extended; and elsewhere in New England the showing now made must be considered only the beginning of what should be accomplished a year or two hence. The bulletin states that all matters of observation should be addressed to Professor Winslow Upton, Providence, R.I.

— The Bureau of navigation of the navy department reports that a hundred and forty-five compasses with the four-needle card have been issued to ships during the past year, and that they have given general satisfaction, the behavior of the improved compasses used by the Greely relief expedition in high latitudes being especially commended. This expedition gathered considerable data concerning the variation of the compass in high latitudes; but, owing to its speedy return, none were obtained concerning the magnetic force and dip. The data concerning compass variations, collected by the department during the past year, are in course of preparation for publication. Professional paper No. 17, entitled the 'Magnetism of iron and steel ships,' is in press; and No. 18, on 'Deviations of the compass in U. S. naval vessels,' is nearly ready. Preparations have been made for a careful examination of the magnetic character of the new steel vessels, and a compass station is to be established in Narragansett Bay. The instruments for a compass testing-house are now in the possession of the bureau, and a building will be erected when the appropriation is made. In view of the probable necessity of compensating the compasses of these new vessels, a binnacle has been designed in the bureau for this purpose, and it will be placed in the Dolphin to be tested.

— Old residents of the California peninsula have noticed several varieties of birds near the seacoast that they have never before known to leave the mountains. This is supposed to indicate a severe winter, but the migration is more probably due to the prevailing scarcity of all kinds of seeds in the mountains this season.

— A complete outfit, consisting of Mangin's projectors, Gramme dynamos, Brotherhood engines and accessories, has been ordered for each of the new U. S. cruisers for use as search-lights. The dynamos and motors are to be mounted on one bed-plate, the engines being connected directly. The projectors will be furnished by Sautter, Lemonnier, & Co., of Paris, and the engines by Peter Brotherhood of London.

— The University of Pennsylvania has rented one of the tables at Dohrn's zoölogical station, so that the United States is again represented at the Naples laboratory.

— Under the title 'Micro-palaeophytologia formationis carboniferae,' Dr. P. F. Reinsch of Erlangen

proposes to issue a work in two volumes, in which are described and figured many microscopic forms resembling the spores of higher cryptogams, but which the writer considers to be independent unicellular organisms. They appear to have been very abundant in the carboniferous period, when higher cryptogams were the prevailing vegetable type. Dr. Reinsch offers to furnish to purchasers of his work duplicate specimens of some of the species described.

— A second edition of Dr. Lant Carpenter's 'Energy in nature' has just been published in England.

— According to *Nature*, the collections made by the polar traveller, Capt. Jacobsen, by order of the Berlin museum, on his American tour, are now on view at the Royal ethnographical museum at Berlin. That part of the collections which was obtained from Alaska territory consists of some four thousand objects, collected among various Eskimo tribes, and among the Ingalik Indians living on the Yukon River. Most of the objects in question closely resemble those dating from the stone age, consisting principally of stone, bone, horn, shell, or wood.

— The *Athenaeum* states that Consul O'Niell has this year accomplished two remarkable journeys in an unknown portion of East Africa. In the first he left the river Shire at Chironzi, and walked to Blantyre, leaving the Ma-Kalolo country on his left. In the second he walked to Guillimani, on the coast, from Blantyre, by a route leading south of Milanji, which will prove to be the nearest and most direct overland communication with the coast. He took twelve hundred observations for longitude, which will help to fix a trustworthy meridian in the interior, which has been much wanted. The account of these journeys will appear in the Proceedings of the Royal geographical society.

— The International Paris exhibition of manufactures and processes will be opened on July 23, 1885, and closed on Nov. 23. The exhibition will be held at the Palais de l'industrie, Champs Elysées, under the patronage of the minister of commerce and the minister of public works.

— From *Nature* we learn that the expedition of the German travellers, Dr. Clauss and Herr von den Steinen, who undertook to investigate the tributaries on the upper right bank of the Amazon and Xingu Rivers, starting from Paraguay and Cuyaba, have successfully accomplished this task, and safely arrived at Para at the end of October. The Brazilian government, and especially Senhor Batovi, the prefect of the province of Matto Grosso, have supported this scientific undertaking in a praiseworthy manner.

— At a meeting of the Anthropological institute of Great Britain, held on Nov. 11, Mr. Francis Galton described the object, method, and appliances of the late anthropometric laboratory at the International health exhibition, reserving the statistical results, which were not fully worked out, for another occasion. 9,344 persons passed through the laboratory, each of them being measured in seventeen distinct particulars for the sum of threepence, in a compartment only six feet wide and thirty-six feet long. So many applications have been made abroad and at home for duplicates of the instrumental outfit, that it was deemed advisable that any suggested improvements in it should be considered before it became established in use.

— Dr. Siemens of Berlin has offered the German government a piece of land in Charlottenberg worth $100,000, for the building of an Institute of mechanical and physical science. Preliminaries are already being arranged by Dr. Forster and Professor Helmholtz.

— Bulletin No. 6 of the U. S. geological survey is 'Elevations in the Dominion of Canada,' by J. W. Spencer, now at the university at Columbia, Mo., lately of King's college, Windsor, Nova Scotia. During his studies of Lake Ontario, Professor Spencer collected the altitudes along all the Canadian railroads constructed up to 1882; and these are now published in convenient form. The tables occupy thirty-three octavo pages, first arranged by railroads, followed by a selected alphabetical list. The altitudes are referred to mean ocean-level.

— Professor Paulitschke left Vienna on the 30th of November for eastern Africa. He proposes, in case access to Harar should be denied him, to explore some of the least-known districts of southern Abyssinia.

— *Petermann's mittheilungen* publishes the report of an excursion into the Somal country by J. Menges, one of the hunters employed by Carl Hagenbeck of Hamburg, the well-known dealer in wild animals. The explorer succeeded in reaching the plateau sixty miles to the south of Berbera, where its altitude is fifty-one hundred feet. He was disappointed in the ruins of stone houses promised him on the coast; such remains of buildings as he found being, to all appearance, due to the Galla, who formerly inhabited this country. A valuable map accompanies the report.

— Recent deaths: Dr. L. Fitzinger, formerly keeper of the Vienna museum, Sept. 22; Dr. Thomas Wright of Cheltenham, geologist, Nov. 17; Mr. R. A. Godwin-Austen, the geologist, Nov. 25, at his residence, Shalford House, Guilford, Eng.; Mr. Henninger, one of the editors of *Science et nature*.

— *Nature* states that Admiral von Schleinitz has resigned the presidency of the Berlin Gesellschaft für erdkunde, and has been replaced by Dr. W. Reiss. At the last meeting of this society it was stated that there are now four polar expeditions in preparation, of which one will start for the antarctic regions. The African traveller, Dr. Aurel Schulz, has started on a journey across Africa from east to west, by way of the Zambesi River and the Victoria Falls. Lieut. Schulz, the leader of the German-African expedition, reports from Cameroon that the joy of the German colonists there is most intense in consequence of recent political events.

— The course of lectures to graduate students at the Johns Hopkins university, which was opened on the 15th of November by President Gilman on academic degrees, will consist of the same number (twelve) as last year. Dr. G. Stanley Hall followed President Gilman with a lecture on student life. The other

lectures are by S. Newcomb, Mathematics and education; J. Rendel Harris, On the study of ancient manuscripts; W. K. Brooks, The zoölogical significance of education; M. Warren, Application of the historical method to the study of Latin; R. T. Ely, Educational value of political economy; M. Bloomfield, Method of comparative philology as pursued to-day; E. M. Hartwell, Physical training in American colleges; A. M. Elliott, Methods in the study of modern languages; W. E. Story, Methods of teaching arithmetic; T. Craig, Mathematical teaching in France.

— A statue of Claude Bernard is to be placed at the top of the grand staircase of the Collége de France. It will be the work of Guillaume, whose sketch in plaster was erected on the site intended for the work when completed.

— Professional paper xiv. of the signal-service, entitled "Charts of relative storm frequency for a portion of the northern hemisphere," by John P. Finley, is just issued. It gives one annual and twelve monthly charts, which show the "distribution of tracks of centres of barometric minima over North America, the North Atlantic, and Europe," based on observations of the last twenty years. The annual chart, for example, explains at a glance why the region around our great lakes has so much more variable a climate than that of central Europe. With us, every rectangle bounded by two and a half degrees of latitude and longitude, from Minnesota to Maine, is visited by from twelve to fifteen storm-centres a year; France and central Germany have less than three on corresponding areas; even Great Britain and most of Norway have not more than six. The chief appreciation of the paper will be found, however, among navigators of the North Atlantic, as the principal object sought was the study of Atlantic storm-tracks, whose relative frequency is now shown graphically for the part of the ocean most commonly traversed. The execution of the maps by the signal-office lithographers is by no means satisfactory.

— The second annual convention of the Modern language association of America was held at Columbia college on the 29th and 30th of December. The modern pedagogic claims on instructors are fairly recognized by the titles of papers which were read, and of the subjects which came up for discussion, some of which were the following: How far may the latest scientific results be embodied in the text-book? by Prof. H. C. G. Brandt of Hamilton college; The modern language question, by Prof. A. M. Elliott of Johns Hopkins university; What place has Old-English philology in our elementary schools? by Prof. Francis B. Gummere of New Bedford, Mass.; Would it be desirable to allow the substitution of one modern in place of one ancient language for admission to college? What amount of modern language study should be regarded as an equivalent for Greek? The extent to which purely scientific grammar should enter the instruction of ordinary college classes; A uniform pronunciation of Latin ought to be adopted in American colleges, and the Roman recommended.

— The January *Century* contains an article on the National museum from the pen of Mr. Ernest Ingersoll, admirably illustrated. Our readers will be very much interested in it. We wish that some modifications might have been made in the introductory sentences, which seem to us to do scant justice to the past. Mr. Ingersoll develops the grandeur of the scheme of the museum with lavish hand; and it would appear as if, were the plan to be carried out in detail, the District of Columbia would not be large enough to hold the museum.

— A special despatch to the Philadelphia *Times* from Washington, condemning the report of the National academy of sciences concerning the reorganization of the different scientific bureaus of the government, and endeavoring to set forth the certainty of Mr. Cleveland's antagonism to the government scientific surveys when he shall have become installed as president, has given occasion to an excellent reply in the *Times* for Dec. 21, from Mr. Charles A. Ashburner of the Geological survey of Pennsylvania, in which he says that the views expressed by Gov. Cleveland in his veto of the appropriations for the New-York state survey last year "do not necessarily indicate his position in regard to the appropriations which shall be made by congress during his term of office for the support of the geological survey. If he shall view this matter from a practical business stand-point, he will no doubt conclude, as others have who thoroughly understand the subject, that the results of the U. S. geological survey are of immediate practical importance, and that such government surveys in the past have had much to do with the great material advancement of the states. The importance of geology as an aid to the discovery, exploration, and exploitation of mineral deposits is acknowledged by intelligent persons; and there is scarcely a civilized government that does not recognize the fact by giving liberal appropriations in support of official geological surveys or by government aid to special geological investigation."

— Prof. Pliny E. Chase of Haverford college, Pennsylvania, who for several years past has been publishing in the Transactions of the American philosophical society the result of his, to say the least, recondite researches on the cosmic influences of harmonic waves, has lately prepared a small work, in two parts, on the 'Elements of meteorology' (Philadelphia, *Porter & Coates*, without date). Although one of the objects in view in its preparation was to provide a 'simple introductory text-book,' we cannot find that this has been realized. Even on the pages devoted to subjects that may be called orthodox, logical arrangement, precise definition, and sufficient explanation are wanting; while other pages, whose topics are, again to say the least, very heterodox, do not seem to us to furnish suitable material for the use of teachers in common schools. It is an unpleasant task to condemn a book, but justice to our readers requires that this one should be characterized as not representing the generally approved principles of meteorology of the present day.