

lecturer on physiology at Westminster hospital, says of himself at first, "I was not unconscious, but I seemed to exist in duplicate; my inner self appeared to be thoroughly alive to all that was going on, but made up its mind not to control or interfere with the acts of the outer self;" and later, "I knew perfectly well that I was playing the fool, i.e., that my outer self was doing so, the inner self looking on, too idle to interfere;" and later still, "Here I appear to have been absolutely unconscious for some moments." Another subject says, "Mr. Hansen told me that my hair was on fire. I touched my head, and saw that he was wrong. He then told me to put my head into cold water, directing me at the same time to a gas-burner. I felt it was not water: I felt the heat, but yet I could not refuse putting down my head and trying to wash it." Voluntary control over thought and action is suspended; reflex action of the cerebral cortex, in response to suggestions from without, comes into play; and, so long as consciousness is retained, the perception of this automatic cerebral action conveys the impression of a dual existence. Dr. Tuke's theory of the hypnotic state does not differ from that of Haidenhain: he holds that part of the cerebral cortex is exhausted by prolonged and monotonous excitation of certain sensory nerves, and that other parts, unexhausted, respond all the more acutely to stimulation. Whether hypnotism is injurious to the subject, or whether it has any therapeutic action, are questions that remain undecided. Mr. North found, after the third and last experiment tried upon him, that any exercise of close attention tended to bring on the same sensations as those which ushered in the hypnotic sleep.

From observations made upon patients at the Salpêtrière who were subject to hysteria major, Charcot and Richer were led to distinguish three distinct forms of hypnotism, — the cataleptic, the lethargic, and the somnambulistic. The last is the form which bears the closest resemblance to the ordinary mesmeric trance. In the cataleptic state, the limbs of the patient remain for a long time, and without effort, in any position in which they may be placed; in the lethargic the muscles are relaxed, but they contract strongly and definitely under gentle mechanical stimulation (*hyperexcitabilité neuromusculaire des hypnotiques*, first observed by Mr. Charcot in 1878). The lethargic subject may be made cataleptic by simply pulling open the eyelids and exposing the eyes to a bright light: closing the eyes is sufficient to put him back into the condition of

lethargy. But, what is most remarkable, if one eye is kept open and the other shut, the singular phenomenon is witnessed of an individual divided into two parts by the median plane. One half of the body, that which corresponds to the closed eye, presents the muscular susceptibility characteristic of the lethargic state: the other, corresponding to the open eye, is in a condition of catalepsy. Mr. Charcot very properly says, that to suppose that an ignorant person, exposed for the first time to this experiment, should be able to invent such an extraordinary phenomenon as this, would be 'truly childish.' But, besides this presumption, he has an infallible method of detecting simulation. A very vigorous person, not hypnotized, can keep his arm extended as long as the cataleptic; but it is useless for him to try to pretend that it does not fatigue him. The operator has only to attach a pneumograph to his chest. The tracing which registers his respirations soon discloses great irregularity in their rhythm and their volume, and in this way his own muscles are forced to write down the evidence of his attempted deception.

The experiments of Charcot and Richer (*Archives de neurologie*) are conducted with a carefulness and ingenuity which should recommend them as models to the American society for psychical research.

INHERITANCE AMONG THE ANCIENT ARABS.

IN the study of Roman law the institution of agnation is discovered. By it descent and inheritance are in the male line. Among most of the tribes of North America, Morgan has shown that uterine descent and inheritance are established by law. In the study of these forms of descent among various peoples of the earth, Morgan came to the conclusion that uterine descent is everywhere the characteristic of primitive society; that it is primordial in savagery; and he attempted to account for the change from female to male descent.

There is yet another institution set forth in Roman law, called cognation, which is descent and inheritance in the male and female lines, and which is found more fully developed in the institutions of modern civilization.

Since Morgan's writings were published, the universality of uterine descent, or mother-right (*mutterrecht*), in primitive society, has been affirmed and denied by various writers; but

Das matriarchat (das mutterrecht) bei den alten Arabern.
VON G. A. WILKEN. Leipzig, Schultze, 1884. 72 p. 8°.

altogether the evidence to the correctness of his views has steadily accumulated, until it is now almost overwhelming.

Mr. Wilken takes up this subject for the purpose of showing that mother-right once existed among the Semitic nations, especially among the ancient Arabs. The evidence adduced seems to fully warrant the conclusion. In connection with the main purpose of his paper, two subsidiary questions are discussed. The first relates to communal marriage; the second, to exogamy and endogamy.

With respect to communal marriage, the author is not clear in his conception of the nature of the institution. It is the marriage of a group of men (brothers) to a group of women (sisters). Sometimes the group of men is small; and a man may have no brothers, and still be entitled to a group of women for his wife. This is sometimes denominated 'hetarism,' and must be distinguished from polygamy, which is altogether a later institution. Sometimes the group of women may be small: in fact, a woman may have no sisters; in which case a number of men would have but one common wife. This is called 'polyandry.' Our author endeavors to find evidence, among the Arabs and other Semitic peoples, of communal marriage; but most of the evidence which he brings forward is not pertinent to the argument. The 'survival' of institutions analogous to 'atavism' in biology is a principle of great value to the student of early society, but it must be used with great care. Wilken describes the institution of *mot'a*, which is marriage for a limited and prescribed time, and other sexual practices among the nomadic tribes, and cites them as survivals of communal marriage from prehistoric times; but such practices, though they may be partially regulated and ameliorated by law, give no evidence of a more ancient institution, but rather show that in all times men have disregarded institutions, and broken laws, and have thus lapsed into immorality. Robbery still exists in the highest stages of civilized society, but furnishes no evidence that stealing was originally established by law, so as to constitute a prehistoric institution. Murder is still committed, but this does not permit us to infer that primitive mankind practised murder as a legalized institution. The various forms of hetarism practised in historic times among all peoples, like robbery, murder, and other crimes, testify to the fact that the passions of men are but imperfectly controlled by the regulations of society.

The author brings forward many instances

and divers reasons for believing that exogamy formerly existed among the Arabs, and that it was finally changed into endogamy. On this subject the author seems to think that the evidence is contradictory, and he tries to draw an average conclusion therefrom. The contradictions, however, are not in the facts themselves, but in the author's misconception of the facts upon which theories of exogamy and endogamy have been based. His first great error is in using the term 'tribe' in different senses, as does McLennan and other writers of that school. They seem to think that the tribe is a group of people held together by the authority of some one person, — by a chief. Now, in fact, no tribe has yet been discovered organized on a plan so simple. All tribes are composed of two or more groups, each of which has an organization, and constitutes an integral part of the tribe. In many cases there are tribes with three, four, five, or even six units of organization of different orders. Sometimes the term 'tribe' is used to designate the unit of the highest order, — the whole body of the people; sometimes it is used to designate a clan or gens within the tribe; and again it is used to denote a sub-gens, or even a smaller group. The use of the term 'tribe,' or its synonyme in other languages, in this manner, has led to many errors, and apparently conflicting statements, in relation to the organization of early society. In all such tribes throughout the world, there is invariably some group of persons within which a man may not marry, and in respect to which he may be said to be exogamous; and yet he always has a right to marry somewhere within the larger group here denominated 'tribe:' hence, in relation to the tribe, he is endogamous. Every man, in all stages of society, is exogamous in relation to some group; that is, it is incest to marry within such group. In like manner, he is endogamous to some other or all other groups. Thus it is that every man, throughout savagery, barbarism, and civilization, is both exogamous and endogamous.

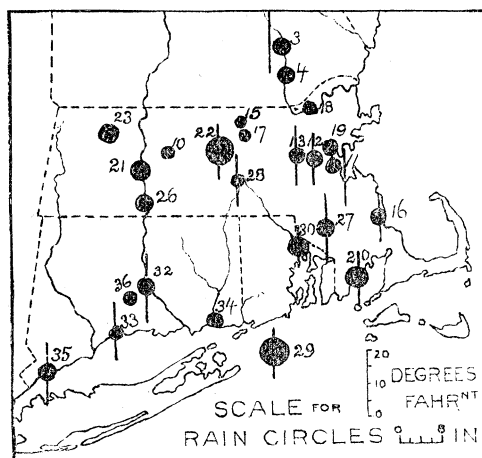
The author has the unfortunate practice of using the term 'matriarchy' (*matriarchat*) for the term 'uterine descent,' and 'patriarchy' (*patriarchat*) as a name for agnatic descent. The term 'patriarchy' has long been used for another purpose; that is, for the name of the organization of the social unit in which the father is the chief or ruler of his sons and sons' families, — a group of descendants, — and is in important particulars the owner of the common property. This patriarchal society is well described in the post-Noachian history

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 'Deviation 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 zoological 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