

criticism that the society gives 'no lectures, no *soirées*, no displays.' Fourth, he argues that original researches should be encouraged in Manchester, and that this society should inspire and aid such work. This leads him to mention the good influence of Owens college and the Victoria university. He closes the chapter with the strong assertion, which few men of science will dispute, that if Manchester, and many cities and countries besides, were obliterated from the earth, the loss would be less than it would be if the world should lose the influence which came from Dalton's atomic theory and from Joule's law of the mechanical equivalent of heat.

INDIAN SIGN-LANGUAGE.

The Indian sign-language; with brief explanatory notes of the gestures taught deaf-mutes in our institutions for their instruction, and a description of some of the peculiar laws, customs, myths, superstitions, ways of living, code of peace, and war-signals of our aborigines. By W. P. CLARK, U.S.A. Philadelphia, *Hamersley*, 1885. 443 p. 8°.

THE study of the gesture-speech of our Indians began in 1801, when Mr. William Dunbar read a paper on the subject before the American philosophical society, which was published in their Transactions. Only quite within the last decade, however, has the subject received the careful attention which it merits. In 1880 there appeared, under the auspices of the Bureau of ethnology, three works, or rather portions of the same work, from the pen of Col. Garrick Mallery, U.S.A., entitled "A collection of gesture signs and signals of the North-American Indians, with some comparisons" (distributed only to collaborators, and therefore one of the bibliographic rarities of the government press); "Introduction to the study of sign-language among the North-American Indians;" and "Sign-language among North-American Indians compared with that among other peoples and deaf-mutes." This last, which was printed in the first report of the Bureau of ethnology, is amply illustrated, and may be considered the completion of Col. Mallery's investigations in this direction. It includes a history of gesture-language in both the old and new world, its study as a phase of evolution, its prevalence in America, its relations to philology, its connection with the origin of writing and the interpretation of pictographs, and the bearings it has upon theories of syntax and etymology.

These applications are striking and instructive in a high degree, and vindicate the eminently important place which the philosophic study of gesture-speech must hereafter occupy in archeologic research. An excellent illustration of it is given by Dr. W. J. Hoffman, in an article on American pictography in the Transactions of the Anthropological society of Washington (vol. ii. 1883), where by its aid he translates in the most satisfactory manner a petroglyph from California, and an Innuït carving on ivory. Such a demonstration of the significant character of these primitive rock inscriptions and carvings was the more timely, since the distinguished ethnologist, Dr. Richard Andree, in his '*Ethnographische parallelen und vergleiche*,' has condemned pretty much all these relics as the idle and meaningless amusements of savages.

Capt. Clark's work is a welcome addition to our knowledge of the subject. He speaks from long personal observation and a practical familiarity with this mode of communicating ideas. His studies began in 1876, and were continued for years, mainly within the limits of the plains or prairie tribes. As in Mallery's treatise, the words are arranged alphabetically, the signs following them, thus facilitating comparison. An advantage in Capt. Clark's presentation is, that he adds the mental conception or picture which the native forms to himself of the object or idea to be represented, thus furnishing a clearer meaning to the sign, and also enlightening the reader as to the psychology of the aboriginal thinker. His definitions are by no means confined to explaining the sign-language. He fully redeems the promise on his titlepage to describe the laws, customs, myths, and peculiarities of the tribes he names. These facts are all fresh, derived from original observation, and add a great deal to the available ethnological information of the prairie Indians.

Such material must, however, be used with caution. When (p. 10) the author infers from the myths of the Indians that there was a time, referred to in these narratives, in which the natives did not know the use of the bow and arrow, he attributes to these stories an antiquity which they by no means possess. The stemmed and barbed arrow-head was in use when the loess of the now long since dried-up Nebraska lakes was in process of formation, almost a geologic cycle ago.

In an appendix the author describes a number of signals with a blanket, a pony, or a mirror, and adds the explanation of various geographical names. It is a peculiarity that

we do not undertake to explain, that he nowhere alludes by name to those writers whose works have preceded his, and which we have mentioned in the earlier paragraphs of this notice.

CASTE IN INDIA IN 1881.

Outlines of Punjáb ethnography. By DENZIL CHARLES JELF IBBETSON of her Majesty's Bengal civil service. Calcutta, *Government*, 1883. 4°.

Imperial census of 1881. Digest of the results in the presidency of Bombay, including Sind. By order of government. Bombay, *Government*, 1882.

Report of the census of Bengal, 1881. By J. A. BOURDILLON of the Bengal civil service. Calcutta, *Secretariat pr.*, 1883.

THESE reports treat of about 109,000,000 of the 198,000,000 people of India. The Punjáb (near 23,000,000) has about 41% Hindus, 51% Mahometans, 7% Sikhs. Bombay and Sind (16,500,000) have 73% Hindus; Bombay alone, 84%. Bengal (69,500,000) has 64% Hindus. The chief strength of the Sikhs in India is in the Punjáb. The preponderance of other races and religions in the Punjáb gives a special field for inquiry how far caste is a Hindu institution.

Mr. Ibbetson deems the treatment of caste hitherto, including his own work, inadequate and unsatisfactory, and he recognizes that contradictory statements regarding the same people may be true in different localities. He says, —

The popular and currently received theory of caste I take to consist of three main articles:

1°. That caste is an institution of the Hindu religion, and peculiar to that religion alone;

2°. That it consists primarily of a fourfold classification of people in general, under the heads of Bráhma, Kshatriya, Vaisya, and Súdra;

3°. That caste is perpetual and immutable, and has been transmitted from generation to generation, throughout the ages of Hindu history and myth, without the possibility of change.

Now, I should probably be exaggerating in the opposite direction, but I think that I should still be far nearer the truth, if, in opposition to the popular conception thus defined, I were to say, —

1°. That caste is a social far more than a religious institution; that it has no necessary connection whatever with the Hindu religion, further than that under that religion certain ideas and customs common to all primitive nations have been developed and perpetuated in an unusual degree; and that conversion from Hinduism to Islám has not necessarily the slightest effect upon caste:

2°. That there are Bráhmans who are looked upon as outcasts by those who, under the fourfold classification, would be classed as Súdras; that there is no such thing as a Vaisya now existing; that it is very doubtful indeed whether there is such a thing as a

Kshatriya, and, if there is, no two people are agreed as to where we shall look for him; and that Súdra has no present signification save as a convenient term of abuse to apply to somebody else whom you consider lower than yourself; while the number of castes which can be classed under any one or under no one of the four heads, according as private opinion may vary, is almost innumerable:

3°. That nothing can be more variable or difficult to define than caste; and that the fact that a generation is descended from ancestors of any given caste, creates a presumption, and nothing more, that that generation also is of the same caste, — a presumption liable to be defeated by an infinite variety of circumstances.

Mr. Ibbetson gives 275 pages to the consideration of religions, races, castes, and tribes of the people of the Punjáb, and justice to his work is hardly possible in a brief space. Summing up as to evolution of caste, he says: —

Thus, if my theory be correct, we have the following steps by which caste has been evolved in the Punjáb:

1°. The tribal division common to all primitive societies;

2°. The guilds based upon hereditary occupation common to the middle life of all communities;

3°. The exaltation of the priestly office to a degree unexampled in other countries;

4°. The exaltation of Levitical blood by a special insistence upon the necessarily hereditary nature of occupation;

5°. The preservation and support of this principle by the elaboration from the theories of the Hindu creed or cosmogony of a purely artificial set of rules, regulating marriage and intermarriage, declaring certain occupations and foods to be impure and polluting, and prescribing the conditions and degree of social intercourse permitted between the several castes. Add to these the pride of social rank and the pride of blood, which are natural to man, . . . and it is hardly to be wondered at that caste should have assumed the rigidity which distinguishes it in India.

He holds that caste in the Punjáb is primarily based on occupation, and, with the masses owning and cultivating land, upon political position, which brings in the tribal element. The trades-guild type of caste, found chiefly in the large cities, owes its existence largely to the prevalence of Mahometan ideas. "The people are bound by social and tribal custom far more than by any rules of religion. . . . The difference [between Hindu and Mussulman] is national rather than religious." In some cases Mahometanism has here strengthened the caste bonds of its adherents. The four castes leading in number in the Punjáb are Jats, probably of Indo-Scythian stock (agriculturists and ploughmen); Rajputs, 'Sons of Rajas' (largely land-owners, preferably pastoral, and avoiding personal ploughing); Brahmins, priestly and Levitical; Chuhars; the scavengers; numbering respectively about 4,500,000, 1,500,000, 1,000,000, and 1,000,000.