

the necessary and inevitable results of the habit prevalent among savage men to maltreat and degrade their women,—its effects upon the constitution, and character, and endurance of children, we cannot fail to see how grossly unnatural it is, how it must tend to the greater and greater degradation of the race, and how recovery from this downward path must become more and more difficult or impossible. But vicious, destructive, unnatural as this habit is, it is not the only one or the worst of similar character which prevail among savage men. A horrid catalogue comes to our remembrance when we think of them—polyandry, infanticide, cannibalism, deliberate cruelty, systematic slaughter connected with warlike passions or with religious customs. Nor are these vices, or the evils resulting from them, peculiar to the savage state. Some of them, indeed, more or less changed and modified in form, attain a rank luxuriance in civilized communities, corrupt the very bones and marrow of society, and have brought powerful nations to decay and death.

It is, indeed, impossible to look abroad either upon the past history or the existing condition of mankind, whether savage or civilized, without seeing that it presents phenomena which are strange and monstrous—incapable of being reduced within the harmony of things or reconciled with the unity of Nature. The contrasts which it presents to the general laws and course of Nature cannot be stated too broadly. There is nothing like it in the world. It is an element of confusion amidst universal order. Powers exceptionally high spending themselves in activities exceptionally base; the desire and the faculty of acquiring knowledge coupled with the desire and the faculty of turning it to the worst account; instincts immeasurably superior to those of other creatures, along side of conduct and of habits very much below the level of the beasts—such are the combinations with which we have to deal as unquestionable facts when we contemplate the actual condition of Mankind. And they are combinations in the highest degree unnatural; there is nothing to account for, or to explain them in any apparent natural necessity.

The question then arises, as one of the greatest of all mysteries—how it is and why it is that the higher gifts of Man's nature should not have been associated with corresponding dispositions to lead as straight and as unerringly to the crown and consummation of his course, as the dispositions of other creatures do lead them to the perfect development of their powers and the perfect discharge of their functions in the economy of Nature?

It is as if weapons had been placed in the hands of Man which he has not the strength, nor the knowledge, nor the rectitude of will to wield aright. It is in this contrast that he stands alone. In the light of this contrast we see that the corruption of human nature is not a mere dogma of theology, but a fact of science. The nature of man is seen to be corrupt not merely as compared with some imaginary standard which is supposed to have existed at some former time, but as compared with a standard which prevails in every other department of Nature at the present day. We see, too, that the analogies of creation are adverse to the supposition that this condition of things was original. It looks as if something exceptional must have happened. The rule throughout all the rest of Nature is, that every creature does handle the gifts which have been given to it with a skill as wonderful as it is complete, for the highest purposes of its being, and for the fulfillment of its part in the unity of creation. In Man alone we have a being in whom his adjustment is imperfect—in whom this faculty is so defective as often to miss its aim. Instead of unity of law with certainty and harmony of result, we have antagonism of laws, with results, at the best, of much shortcoming and often of hopeless failure. And

the anomaly is all the greater when we consider that this failure affects chiefly that portion of Man's nature which has the direction of the rest—on which the whole result depends, as regards his conduct, his happiness, and his destiny. The general fact is this:—First, that Man is prone to set up and to invent standards of obligations which are low, false, mischievous, and even ruinous; and secondly, that when he has become possessed of standards of obligation which are high, and true, beneficent, he is prone first, to fall short in the observance of the , and next, to suffer them, through various processes of decay, to be obscured and lost.

ASTRONOMY.

THE LICK OBSERVATORY.

Work upon Mount Hamilton, the site of the new Lick Observatory, has been pushed forward as rapidly as could be expected, and it is probable that the building will be sufficiently finished to receive a portion of the instruments in the fall of this year. For instrumental equipment, a 12-inch Clark glass and tube, made for Dr. Draper, has been bought, and will be fitted to an equatorial mounting. A 4-inch transit, made on the same patterns as the 4-inch meridian circle of Princeton College, with a few changes introduced by Professors Newcomb and Holden, has been ordered from Fauth & Co., of Washington. It will be sent to California in October, and will probably be mounted by Prof. Holden, and used by him in connection with the 12-inch equatorial, to observe the transit of Mercury on November 7, 1881. A Repsold's meridian circle of six inches aperture will soon be ordered, as well as a small vertical circle. Alvan Clark & Sons, of Cambridge, have received the contract to make a glass three feet in diameter, at a cost of \$50,000. The equatorial mounting for this immense objective (44 per cent. more powerful than that ordered for the Russian Government, with aperture of 30 inches, and 100 per cent. more powerful than the great Washington refractor) is not yet provided for. Proposals will be obtained from the principal instrument makers of Europe and this country, and the mechanical part will probably cost as much as the optical.

General plans for the buildings were prepared by Professors Newcomb and Holden, in August, 1880, and will govern the more detailed plans which are to be prepared by the architects. A dome for the 12-inch equatorial is already in process of construction.

The work done upon Mt. Hamilton by Mr. Burnham in the summer of 1879 shows how well suited the high situation is for astronomical observations, and much will be expected from an observatory so well provided with powerful instruments.

"THE 'ASTRONOMISCHE NACHRICHTEN.'—Contrary to what has been lately stated, it appears that this periodical will still be edited by Dr. C. F. W. Peters, who has for some time conducted it, and we are informed there is a probability that Prof. Kruger may set afloat a new astronomical journal under his own management."—*Nature*.

SITE FOR THE NEW NAVAL OBSERVATORY.—The Commission appointed by Congress to select a site for the proposed new Naval Observatory has purchased the Barbour estate, in Georgetown, at a cost of \$63,000. A detailed description of the location will shortly appear.

W. C. W.

WASHINGTON, March 10, 1881.

We notice, in the last number of the *Chemical News*, that Mr. M. Benjamin, to whom we are indebted for notices of the American Chemical Society, was elected a Fellow of the Chemical Society, London.

⁷ Malthus, 6th Edition, vol. i., p. 39.