

students, we attempt this year to begin to develop the pedagogy of higher education by a new department, and a new third journal, now about to be issued from the university.

"Finally, although we yet lack all the traditions and enthusiasm that come with age, with what gratitude and earnest felicitation does every mind and heart here turn to a founder who is not a tradition, a picture, a statue, or even a memory, but the living, animating power of the institution he has planted with such wisdom, and watered with such care! As an investigator toils to bless mankind with new discoveries, so he has wrought that the world might be blessed by the more rapid increase and diffusion of truth. As a teacher longs to impart all his knowledge to a favored pupil, so he has been the best of all my teachers in things in which a scholar may sometimes lack wisdom. As parents are anxious for the comfort and highest success of all their children, so he, and his devoted wife, could even be careless of what all others may say or do, if only every man here be so placed, furnished, and incited as to do the best work of which he is capable, for himself and for science. If we labor with his persistence and devotion, his care in things that are small as well as great, we cannot fail to realize his and all our highest hopes and best wishes for Clark University."

THE ARYAN CRADLE-LAND.¹

"It will be for the benefit of our science," said the president of the Anthropological Section of the British Association, "that speculations as to the origin and home of the Aryan family should be rife; but it will still more conduce to our eventual knowledge of this most interesting question if it be consistently borne in mind that they are but speculations." With the latter, no less than with the former opinion, I cordially agree. And as, in my address on the Aryan cradle-land in the Anthropological Section, I stated a greater variety of grounds in support of the hypothesis of origin in the Russian steppes than has been elsewhere set forth, I trust that I may be allowed briefly to formulate these reasons, and submit them to discussion.

(1) The Aryans, on our first historical knowledge of them, are in two widely separated centres,—Transoxiana and Thrace. To Transoxiana as a secondary centre of dispersion the eastern Aryans, and to Thrace as a secondary centre of dispersion the western Aryans, can, with more or less clear evidence or probable inference be traced, from about the fourteenth or perhaps fifteenth century B.C.; and the mid-region north-west of Transoxiana and north-east of Thrace—and which may be more definitely described as lying between the Caspian and the Euxine, the Ural and the Dnieper, and extending from the 45th to the 50th parallel of latitude—suggests itself as a probable primary centre of origin and dispersion.

(2) For the second set of facts to be considered reveal earlier white races, from which, if the Aryans originated in this region, they might naturally have descended as a hybrid variety. Such are the facts which connect the Finns of the north, the Khirgiz and Turkomans of the east, and the Alarodians of the south with that non-Semitic and non-Aryan white stock which has been called by some Allophyllian, but which, borrowing a term recently introduced into geology, may, I think, be preferably termed Archaian; and the facts which make it probable that these white races have from time immemorial met and mingled in the South Russian steppes. Nor, in this connection, must the facts be neglected which make great environmental changes probable in this region at a period possibly synchronous with that of Aryan origins.

(3) In the physical conditions of the steppes characterizing the region above defined, there were, and indeed are to this day, as has been especially shown by Dr. Schrader, the conditions neces-

sary for such pastoral tribes as their language shows that the Aryans primitively were; while in the regions between the Dnieper and the Carpathians, and between the Oxus and the Himalayas, the Aryans would, both in their south-western and south eastern migrations, be at once compelled and invited, by the physical conditions encountered, to pass at least partially from the pastoral into the agricultural stage.

(4) The Aryan languages present such indications of hybridity as would correspond with such racial intermixture as that supposed; and in the contemporary language of the Finnic groups Professor De Lacouperie thinks that we may detect survivals of a former language presenting affinities with the general characteristics of Aryan speech.

(5) A fifth set of verifying facts are such links of relationship between the various Aryan languages as geographically spoken in historical times,—such links of relationship as appear to postulate a common speech in that very area above indicated, and where an ancient Aryan language still survives along with primitive Aryan customs: for such a common speech would have one class of differentiations on the Asiatic, and another on the European side, caused by the diverse linguistic re-actions of conquered non-Aryan tribes on primitive Aryan speech, or the dialects of it already developed in those great river partitioned plains.

(6) A further set of verifying facts are to be found in those which lead us more and more to a theory of the derivative origin of the classic civilizations, both of the western and of the eastern Aryans. Just as between the Dnieper and the Carpathians, and between the Oxus and the Himalayas, there were such conditions as must have both compelled and invited to pass from the pastoral into a partially agricultural stage, so, in passing southward from each of these regions, the Aryans would come into contact with conditions at once compelling and inviting to pass into a yet higher stage of civilization. And in support of this all the facts may be adduced which are more and more compelling scholars to acknowledge that in pre-existing Oriental civilizations the sources are to be found, not only of the Hellenic and the Italic, but of the Iranian and the Indian civilizations.

(7) Finally, if the Hellenic civilization and mythology is thus to be mainly derived from a pre-existing Oriental or "Pelagian" civilization, it is either from such pre-existing civilizations, or from Aryans such as the Kelto Italiots, migrating northward and southward from Pelagian Thrace, that the civilization of western and northern Europe would, on this hypothesis, be traced: and a vast number of facts appear to make it more probable that the earlier civilization of northern Europe was derived from the south than that the earlier civilization of southern Europe was derived from the north.

The three conditions of a true solution of the problem either of Semitic or of Aryan origins appear to be these: first, the locality must be one in which such a new race could have ethnologically, and secondly philologically, arisen as a variety of the Archaian stock of white races; and, thirdly, it must be such as to make easily possible the historical facts of dispersion and early civilization. And I venture to submit the above sets of facts as not inadequately, perhaps, supporting the South Russian "speculation as to the origin and home of the Aryan family."

J. S. STUART GLENNE.

ETHER INTOXICATION.

WE can bear out from personal observation, says the *Lancet* for Sept. 20 editorially, many of the statements which are now going the round of the public press in reference to the habit of ether-drinking in some parts of Ulster; for, in fact, some of the paragraphs are nothing more than copies of what have been reported in years gone by. The practice came into use about the year 1841-42, and was at first a kind of re-action against the great temperance movement which had been inaugurated by Father Mathew. Ether, at that time of the ethylic type, probably not very pure, was substituted for whiskey; and the habit, commencing in or near Drapers Town and spreading over a small surrounding area, is continued up to the present day. The order of drinking, as witnessed during a visit to the district named, is singular. The

¹ From *Nature* of Oct. 2.

ether purchased at open shops and at stores was doled out in wine-glasses. The drinker first washed out his mouth with a draught of cold water, and after that tossed off a wine-glassful of ether "nate," as it was said, drinking it quickly, almost at a gulp. Both men and women took part in this indulgence, and were speedily brought into a state of intoxication more or less complete. The intoxication differs from that produced by alcohol. It is more rapidly induced, and more rapidly dispelled; in fact, the effect of one dose may be developed and cleared off in a quarter of an hour or twenty minutes. The delirium is sharp; the stupor, for a brief period, deep; and the excitement, so long as it lasts, hysterical.

Particulars were gathered from a trustworthy medical source of several instances in which the narcotism caused by the ether had proved dangerous, calling for the employment of artificial respiration; and evidence was found of four actually fatal intoxications, either from an excessive dose, or from asphyxia caused by the entrance of some of the fluid into the glottis, with succeeding spasm or obstruction. It was gathered, at the same time, that tolerance to the effects of ether was much less marked than tolerance to alcohol; and that organic disease from the habitual taking of ether was exceedingly small compared with the ravages and degenerations which alcohol leaves in its train. The explanation of these facts is not difficult: alcohol is so soluble that it enters the blood freely; pervades, with the water of the blood, all the tissues; and is readily retained by them to work out those serious osmotic changes which demonstrate its action as the most potent of degenerators. Ether, on the other hand, is comparatively insoluble; and as it boils at the temperature of the body, and is diffused nearly as fast as it is introduced, it leaves few marks of mischief, except when it destroys life directly. Occasionally it gives rise to dyspepsia and to gastric irritation, with free eructations of gases mixed with ethereal vapor. But these symptoms belong to ether toppers of a hardened sort, and soon pass off when the habit is abandoned.

Of late years the use of the cheaper methylated ether has taken the place, to a considerable extent, of the ethylic variety, and some think with more injurious effects; but on this point there is no evidence strictly trustworthy. Officers of the government have at various periods made inquiries in order to see if, by legislative action, the habit could be controlled or prevented; but as yet nothing has been suggested that has promised success, and the excise officers are helpless, inasmuch as the spirit from which the ether is made has paid the usual duty previously to the manufacture.

HEALTH MATTERS.

Leprosy in Spain.

SOME interesting particulars are given by the British consul at Cadiz, in his last report, as to the San Lazaro Leper Hospital, which has been in existence at Seville for over six hundred years, says the *British Medical Journal*. The first leper-house in Spain was founded at Valencia, in 1067. The San Lazaro Hospital was founded by Ferdinand III., when he took Seville from the Moors, in 1248. It is situated about a mile to the north of the city. A decree was issued in 1478, confirming previous enactments to the same effect: "That all persons without distinction residing within the Archbishopric of Seville and the Bishopric of Cadiz, denounced and declared lepers, must go to the Hospital de San Lazaro, Seville." This decree was carried out with great rigor. From the reign of Alfonso X., down to the last century, it was the custom for four patients to visit Seville daily on horse-back, begging; and, as they were not allowed to speak to ordinary persons, they attracted attention by means of boards. In 1854 the hospital was put under the charge of the Diputacion Provincial: the edifice was then little better than a ruin, and contained only 29 patients. In 1864 the building was repaired. The patients, who number on the average from 30 to 36, are looked after by sisters of charity. From the official reports it appears that the patients are not all lepers, cases of cancer and other diseases being admitted.

Cremation at Milan.

Two systems of cremation are followed at Milan, by one of which the body is burned in a furnace surrounded by wood and charcoal, while by the other the combustion is brought about through a number of jets of gas which cast their heat upon the furnace from all sides. When wood and charcoal are employed, as stated in the *Medical Record*, about six hundred pounds of wood and one of charcoal are found necessary, and the process lasts two hours. When gas is used, all that is consumable in the body is burned up in less than fifty minutes. The body may, in ordinary cases, be introduced into the furnace with or without the coffin; but, if death has been caused by some infectious disease, the coffin and body must be burned together. The weight of the remains after cremation, in the form of bones and dust, is about four pounds. They are in color pure white, tinged here and there with a delicate pink; and it is a rule never to touch them with the hand. The bones, and vestiges of bones (which are for the most part burned into powder), are taken up with silver tongs, while the ashes are removed from the furnace with a silver shovel, to be placed on a silver dish, and then deposited in an urn for retention in the cinerarium. Here the ashes are preserved in separate compartments, each with a suitable inscription beneath it. The cost of cremation is five dollars to a member of the Society for Extending Cremation in Italy, or ten dollars in the case of non-members.

Child Suicides.

The *Medical and Surgical Reporter* is authority for the statement that from Jan. 1 to Sept. 1, 1890, 62 children—46 boys and 16 girls—committed suicide in Berlin. Of this number, 24 had attained the age of fifteen, 14 their fourteenth year, 9 their thirteenth, while 7 were only twelve years of age, and one had not attained the age of seven. In most of the cases the immediate cause for the act remains a secret, but it is supposed to have been due to exceptional severity on the part of servants or teachers.

Malarious Africa.

Malarial-fever is the one sad certainty which every African traveller must face. For months he may escape, but its finger is upon him; and well for him if he has a friend near when it finally overtakes him. It is preceded for weeks, or even for a month or two, by unaccountable irritability, depression, and weariness, says Drummond in his well-known book. This goes on day after day till the crash comes,—first cold and pain, then heat and pain, then every kind of pain and every degree of heat, then delirium, then the life-and-death struggle. He rises, if he does rise, a shadow, and slowly accumulates strength for the next attack, which he knows too well will not disappoint him. No one has ever yet got to the bottom of African fever. Its geographical distribution is still unmapped, but generally it prevails over the whole east and west coasts within the tropical limit, along all the river-courses, on the shores of the inland lakes, and in all low-lying and marshy districts. The higher plateaus, presumably, are comparatively free from it; but, in order to reach these, malarious districts of greater or smaller area have to be traversed. There the system becomes saturated with fever, which often develops long after the infected region is left behind. The really appalling mortality of Europeans is a fact with which all who have any idea of casting in their lot with Africa should seriously reckon. None but those who have been on the spot, or have followed closely the inner history of African exploration and missionary work, can appreciate the gravity of the situation. The malaria spares no man; the strong fall as the weak; no number of precautions can provide against it; no kind of care can do more than make the attacks less frequent; no prediction can be made beforehand as to which regions are haunted by it and which are safe. It is not the least ghastly feature of this invisible plague that the only known scientific test for it at present is a human life. That test has been applied in the Kongo region already with a recklessness which the sober judgment can only characterize as criminal. It is a small matter that men should throw away their lives, in hundreds if need be, for a holy cause; but it is not a small matter that man after man, in long and in fatal succession, should seek to overleap