

philanthropy inactive, or that the hatred of evil will become indifference. Science will not cease to search for knowledge, or to make it useful when she can; we shall not see less than we do now, and here, of the good results of enterprise and rivalry, and of the sense of duty and the sorrow for shame that there should be evil in the land.

What more, then, it may be asked, is wanted? I answer, that which I have tried to stir: a larger and more practical recognition of the value and happiness of good national health; a wider study and practice of all the methods of promoting it; or, at least, a more ready and liberal help to those who are striving to promote it. In one sentence, we want the complete fulfilment of the design of this Exhibition, with all the means towards health and knowledge that are shown in it, and with its handbooks, lectures, conferences, and the verdicts of its juries.

We want more ambition for renown in health. I should like to see a personal ambition for renown in health as keen as is that for bravery, or for beauty, or for success in our athletic games and field-sports. I wish there were such an ambition for the most perfect national health as there is for national renown in war, or in art or commerce. And let me end soon by briefly saying what I think such health should be.

I spoke of the pattern healthy man as one who can do his work vigorously wherever and whatever it may be. The union of strength with a comparative indifference to the external conditions of life, and a ready self-adjustment to their changes, is a distinctive characteristic of the best health. He should not be deemed thoroughly healthy who is made better or worse, more or less fit for work, by every change of weather or of food; nor he who, in order that he may do his work, is bound to exact rules of living. It is good to observe rules, and to some they are absolutely necessary, but it is better to need none but those of moderation, and, observing these, to be able and willing to live and work hard in the widest variations of food, clothing, and all the other sustentances of life.

And this, which is a sign of the best personal health, is essential to the best national health. For in a great nation, distributed among its people, there should be both muscular and mental powers suited to the greatest possible variety of work. No form or depth of knowledge should be beyond the attainment of some among them; no art should be beyond its reach; it should be excellent in every form of work. And, that its various powers may have free exercise and influence in the world, it must have, besides, distributed among its people, abilities to live healthily wherever work must be or can be done.

Herein is the essential bond between health and education; herein is one of the motives for the combination of the two within the purpose of this one Exhibition; I do not know whether health or knowledge contributes most to the prosperity of a nation; but no nation can prosper which does not equally promote both: they should be deemed twin forces, for either of them without the other has only half the power for good that it should have.

It is said, whether as fact or fable, that the pursuit of science and of all the higher learning followed on the first exercise of the humanity which spared the lives of sick and weakly children; for that these children being allowed to live, though unfit for war or self-maintenance, became thinkers and inventors. But learning is not now dependent upon invalids; minds are not the better now for having to work in feeble bodies; each nation needs for its full international influence both health and knowledge, and such various and variable health that there should be few places on earth or water in which some of its people cannot live, and multiply, and be prosperous.

If, therefore, we or any other people are to continue ambitious for the extension of that higher mental power of which we boast, or for the success of the bold spirit of enterprise with which we seek to replenish the earth and subdue it; if we desire that the lessons of Christianity and of true civilisation should be spread over the world, we must strive for an abundance of this national health, tough, pliant, and elastic, ready and fit for any good work anywhere.

UNIVERSITY AND EDUCATIONAL INTELLIGENCE

CAMBRIDGE.—The Senior Wrangler, Mr. W. F. Sheppard, scholar of Trinity College, is a native of Australia; the Second Wrangler, Mr. W. P. Workman, also a scholar of Trinity, is the son of a Wesleyan minister.

The Natural Sciences Tripos, Part 1, contains the names of fifty-three men, of whom thirteen are placed in the first class; in addition six are allowed an ordinary degree, and six are excused the general examination. Two ladies attained a first class, four a second, and one a third.

In the Natural Sciences Tripos, Part 2, the first class includes the names of Messrs. Adami (Physiology) Christ's College; Chree (Physics), King's; Green (Botany, Physiology), Trinity; Head (Physiology), Trinity; Laurie (Chemistry), King's; Phillips (Botany), St. John's; Shipley (Zoology), Christ's; and Threlfall (Chemistry, Physics), Caius. The subjects mentioned are those for distinction in which the candidates are placed in the first class.

Mr. C. Potter will give lectures on Systematic Botany with field excursions and practical work, in the long vacation, beginning July 8.

SOCIETIES AND ACADEMIES

LONDON

Mathematical Society, June 12.—Prof. Henrici, F.R.S., president, in the chair.—Mr. G. S. Ely, Fellow of the Johns Hopkins University, Baltimore, was elected a member.—The chairman announced that the Council had awarded the first De Morgan gold medal to Prof. Cayley, F.R.S.—A note on the induction of electric currents in a cylinder placed across the lines of magnetic force, by Prof. H. Lamb, was read in abstract.—Mr. J. Hammond gave some results of a paper which is shortly to appear in the *American Journal of Mathematics*.

Linnean Society, June 5.—Wm. Carruthers, F.R.S., vice-president, in the chair.—Messrs. J. Starkie Gardner, F.G.S., and J. H. Leech were elected Fellows of the Society.—Mr. J. Harris Stone exhibited and made remarks on specimens and photographs, viz. portion of the wood and of a remarkable wart (as large as a cocoa-nut) from the famous dragon-tree, *Dracena draco*, of the Canaries; photograph of the young dragon-tree planted by the Marquesa de Sawyal, and now growing on the site of the old celebrated tree of Oratova; photograph of the dragon-tree of Icod-de-los-Vinos in Teneriffe; and a photograph of the Peak of Teneriffe, showing how the "Retana" grows on the Cañadas.—There was shown, on behalf of Mr. R. Morton Middleton, a small branch of *Cotoneaster microphylla* grown at Castle Eden, Co. Durham, and a good example of fasciation in this plant.—Dr. R. C. A. Prior afterwards drew attention to specimens of the rare *Potentilla rupestris* from Craig Breidhin, Montgomeryshire, and of *Rumex sanguineus*, from the neighbourhood of Bristol, both freshly gathered by Mr. T. Bruges Flower, F.L.S.—A paper by Mr. G. Claridge Druce was read, in which he describes a new variety of *Melampyrum pratense*, L., and which he suggests should be known as var. *hians*.

—Prof. J. Martin Duncan read a paper on a new genus of recent Fungida allied to the fossil form *Micrabacia*; the genus being based on a specimen of coral obtained from shallow water in the Korean Sea.—A communication was made by Mr. Arthur R. Hunt, on the influence of wave-currents on the fauna inhabiting shallow seas. The author refers to various physical data, among others quoting Prof. Stokes and Mr. T. Stevenson, the latter stating that a current of 0.6819 of a mile per hour will carry forwards fine gravel, and that of 1.3638 roll along pebbles an inch in diameter. From this and other facts Mr. Hunt argues that wave-currents do materially influence the marine fauna inhabiting shallow water, not only those of the tidal strand, but likewise those inhabiting the deeper sea-bottom. He adduces instances of animals living among or on rocks, and of those frequenting sand or other deposits, enumerating species of star-fish, mollusks, shrimps, crabs, and fish. He says that even the flat-fishes (Pleuronectidae) seem to have changed their original forms and habits for the purpose of being able to live in shallow waters agitated by waves. Referring more particularly to species of *Cardium*, he endeavours to show how, under the influence of wave-currents, the variation of species may be promoted and even their local extinction brought about.—A paper was read, on the Longicorn Beetles of Japan, by Mr. H. W. Bates. In a former paper (in 1873), on the same subject, the author treated of 107 species, but now adds many new genera and 129 more species, or a total of 236 specific forms as at present known to belong to the Japanese fauna. This great accession is due to the later collections of Mr. Geo. Lewis, who made a second