

accepted view on the subject. If we subdivide these three classes, we find, that, while all classes of men of thought live longer than ordinary men, the moralists live longest, scientists coming next; that among the men of feeling the religionists alone live the full period of life, while poets' lives are 5 years, and musicians' lives 8 years, too short; that, of men of action, rulers and commanders both fail to complete the full term of life by 4 years. One sees from these statements (which, however, in their detail at least, must be accepted with hesitation, owing to the fewness of examples) that the kind of psychical and physical activity pursued, influences the life-period; that certain types of genius are apt to die young, while others are particularly favored with a full allowance of years.

The question of longevity becomes important when we consider that through it the leaders of civilization are allowed to exercise their important function a few years longer, thus enabling more great men to be alive at the same time; and that, by its tendency to be inherited by the offspring, the children of great men will begin life with a better chance of reaching maturity, and, in turn, of becoming important to the world, if, as we have reason to believe it would, the genius of their ancestors has left its traces in them.

JOSEPH JASTROW.

PARIS LETTER.

THERE is a good deal of discussion going on at present concerning the Municipal laboratory in Paris. This laboratory, as is known, was established in order to furnish to all persons who require them, a means of making careful analyses of all sorts of manufactured goods, and especially eatables and drinks. Of course, this made the dealers and manufacturers who sell impure wine, milk, or preserves very angry. But this resentment showed the usefulness of the laboratory; and notwithstanding the efforts of some aldermen, whose votes are under control of wine-dealers, and whose voices are necessary to them, the laboratory has been kept up, and continues doing useful work. The present discussion concerns salicylic acid, and has brought a howl from the beer-men. The laboratory considers the use of salicylic acid as hurtful, and wishes all manufacturers who use it to be prosecuted. In 1877 a committee appointed to study the matter reported, saying that it is better to forbid the use of salicylic acid in the manufacture of beer. In 1880, another committee, on which were Brouardel and Würtz, reported in a similar manner, considering salicylic acid as a dangerous substance, which is preservative only when used in such large quantities as to render

the beer toxic, and proposing that all alimentary substances containing that acid be destroyed, and their sale forbidden. In 1881 a law was enacted, forbidding the use of the acid. This brought such a number of protestations, that in 1883 the question was again brought before a committee composed of Würtz, Pasteur, and others. It reported as the preceding ones had done. It was immediately decided to prosecute all manufacturers of or dealers in alimentary substances containing the acid. But as the victims of the prosecution were generally innocent, being retailers, and not manufacturers, a plan was instituted to seize upon beer as it came into Paris, and before it was sold to dealers. But there arose a serious difficulty. Most of the adulterated beer comes from Germany, and the law has no force among foreigners. But then the dealers to whom German beer is sent have it analyzed; and, if it contains salicylic acid, they merely have to send it back. On the whole, the course followed by the Municipal laboratory is a very good one, and profitable to public health. It will always have enemies, since unscrupulous dealers will always exist, as they have always to the present day; but every man who cares for his health must be a staunch supporter of it.

The *Journal officiel* has recently published the annual report on the statistics of the population of France for 1885. The results are very unsatisfactory. The birth-rate has diminished (it is 922,361), being smaller than usual by twenty or thirty thousand. The number of illegitimate children is larger than in preceding years, being more than eight per cent instead of seven. The death-rate also has diminished, but not to a degree commensurate with the birth-rate, which exceeds the death-rate by 85,464. This difference is much smaller than it was some ten years ago, when it was 140,000 or 150,000 yearly. However, it must be remembered that the effects of the war of 1870 are still felt, and that the diminished birth-rate may be ascribed to the loss of a great number of men, who, at the present time, would have been heads of numerous families.

M. Paul Bert has recently created in Tonquin a scientific society. He wished to imitate Napoleon in Egypt, no doubt, and has given a sister to the Institut d'Egypt. The Bac-ki-ham-lam-vien—such is the name of the new academy of sciences—has for its mission the collecting of materials for the history of Tonquin. Of course, M. P. Bert has created himself president of the academy, and is sole elector. It is he who decides who shall be the members: they must be of Tonquin blood.

Professor Herzen of Lausanne has published an interesting review of the researches recently con-

ducted by two Italian physiologists, concerning the physiological action of the thyroid gland. It is known that the views held by the different investigators are very diverging, and that many are obliged to confess, that, though this gland seems to be connected with blood-corpuscles, the exact relation between the two is quite problematic. MM. Albertoni and Tizzoni, the above-mentioned investigators, believe they have found out the real function of this gland, and, after a careful study of blood in animals deprived of the gland, they have come to the conclusion that it gives to hemoglobin the faculty of absorbing oxygen. The fact is, that the blood of animals which have been deprived of the thyroid gland contains a very small proportion of oxygen. Their arterial blood contains less of this gas than does the venous of healthy ones; and the investigators ascribe the symptoms of acute cachexia strumipriva in dogs to this very considerable diminution of oxygen which always follows upon enucleation of the gland.

M. Trouvé, the well-known electrician, has recently devised ingenious contrivances for surgical diagnostic purposes, in the case of a man who had swallowed a fork and applied for treatment to a surgeon who was afraid of being mystified. But M. Trouvé, much more expert in electrical matters than the surgeon, who understood little or nothing on the subject, and was more than usually ignorant, relieved the scruples of the latter in a very simple manner. He devised a *sonde œsophagienne* connected with an electrical apparatus and a bell, and made in such a manner that contact with a metallic substance allowed the passage of the current, and made the bell ring. The bell was heard very distinctly. In addition, he made some very simple as well as convincing experiments, that the surgeon ought to have thought of. He placed a very sensitive magnetic needle in the vicinity of the patient, and saw the needle turn towards him; he brought a large electro-magnet into the vicinity of the stomach, and, each time the current was on, the fork came towards it, upheaving the skin and muscles of the abdominal walls in a marked manner; and at length the surgeon was convinced, and he performed the operation.

The twins of Locana, who have been shown in almost every town of Europe as the successors of the renowned Siamese twins, are at present dying in Vienna, or at least are very ill. These twins, now aged ten, are united from the sixth rib downwards. They have but one abdomen and a single pair of legs. One of these is under Jacob's control; the other, under that of John. They cannot walk, and cannot easily keep their balance. One is much stronger and healthier than the

other, and eats more: it is Jacob, and he keeps his brother alive. Sometime ago, both quarrelled over a toy, and John got so excited that he fell into a state of syncope, or trance, from which he did not recover till the next day. He had already had an illness of the same kind, and Virchow of Berlin had prognosticated that a second one would kill him. This Jacob knew well: so, of course, the illness of his brother (an apparently lifeless body) gave him all the more concern, since the death of his brother would but shortly precede his own. The physicians are doing their best to save the unfortunate children. Of course, no operation can be thought of in the present case. Even in that of the Siamese twins, there were great difficulties attending a surgical intervention; and, before it was resolved to intervene, death had already done its work. If the twins recover, they will go to the states, where they were engaged, it is said, at the rate of six thousand dollars per year; if not, their skeleton is already promised to a London anatomical museum for eight thousand pounds.

A schoolmate of M. Marcel Deprez, the able engineer who conducted the experiments related in one of my last letters, concerning the transmission of electric force at great distances, published some days ago an interesting paper on the biography of his friend. M. Deprez was an unsuccessful scholar, who failed to enter the Ecole polytechnique, but was remarkably endowed as to scientific and mathematical pursuits. He was extremely religious, and of a very militant turn of mind. He could never bear discussion; but, when it came to religious matters, he was a fanatic, and would, in the times when the Inquisition flourished, have been an intolerant and dangerous man. Another singular trait of this able and gifted scientist is his hatred for all forms of art. It must be added that M. Deprez's eccentricities have been considerably modified by age.

The French government has decided to greatly extend the department of ballooning for military purposes. There are to be eight aerostatic stations; namely, at Epinal, Toul, Verdun, Belfort, Montpellier, Grenoble, Arras, and Versailles, the principal one being the last named, which is also the only one existing at present. All the military corps will also be shortly provided with the implements necessary for strategic ballooning. No further progress has been made in the art of balloon-managing: the problem is considered solved, and only few improvements, of secondary nature, are needed.

An interesting case of protracted pathological sleep is at present receiving attention in the Sal-

pétrière. It is that of an hysterical woman, who, in consequence of a left-sided hemiplegia, has been in that establishment since 1862, and has remained in bed ever since. This protracted sleep comes on in January generally, sometimes also in July. The patient sleeps for a week or two, or even longer. In January last, Eudoxie Hilouin — such is her name — slept fifty days; in July, only eighteen days. Before falling into this sort of trance, she is very much excited, shouts, and thinks she sees animals of all sorts. During the sleep, her breathing is irregular, alternately calm and regular, then short and rapid. She is insensible to pain, and nothing can wake her. She eats, however, what is given her, and repels substances the taste of which is unpleasant to her. She is fed with liquids most of the time. She is very fat. She weighed 280 pounds (160 kilograms) some time ago, but her weight falls off during the sleeping periods. Before awaking, nervous trembling is perceptible, and she laughs immoderately. She hears during her sleep, as has been shown by a physician who has succeeded in getting her to do various things, in the usual manner.

An often and periodically debated question, which is always arising, like the fabulous Phoenix, is that of *Paris, port de mer* (Paris, a marine port). Its solution is not impossible, and some day next century may see the big steamers of the White Star, or Cunard, or some other line, steam from New York directly into the middle of Paris. However, at present the question is not much advanced, since it rests only on the material feasibility of the canal from the Atlantic to Paris, as it did in the times of Sully and Vauban, who had given much consideration to the matter. The projects are numerous. The first, that of Passemont and Billard, in 1760, consisted in increasing the depth of the Seine. In 1790 the Marquis of Crécy proposed a canal going from Paris to Dieppe; but this plan was not a good one, owing to the porous nature of the layers of the soil. In 1860, M. Lebreton proposed a canal one hundred and sixty kilometres long, eighty metres wide, and ten metres deep; but the cost would have been enormous. In 1869, M. Dumont proposed a plan similar to that of the Marquis of Crécy, in which water had to be brought from two rivers, and in which numerous locks were established. Many other plans have been proposed; but the best of all is yet of little use, on account of the expense: it seems to be that of M. Lebreton, as it does not require locks, and there can be no trouble about the water, which will be that of the Channel. Some day or other it may succeed, however, when progress in the mechanic arts shall have lessened the expense.

Dr. Tanner has found in Italy a competitor, Succi by name, who has undertaken a thirty-days' fast. He began the experiment on the 17th of August, and the trial will soon be over. The experiment seems to have been conducted in good faith. A committee of physicians has been appointed to witness the experiment from beginning to end, and the patient has a constant body-guard, relieved twice a night and six times per day, of persons who keep vigilant watch over him, to prevent all fraud. Succi pretends to be able to fast the thirty days, if he is only allowed to drink some water, and some drugs which he has prepared from African plants, — a composition which he keeps a secret as yet. He requires also some tartar-emetic, olive-oil, and anisated water. The first day of the fast he drank some of his drug, and remained in bed, because during the first week he is generally a little indisposed, and requires rest. The ninth day he took a drive, and then a ride, for an hour, without feeling the slightest discomfort. The loss of weight was only five kilograms; muscular energy was unabated, as well as agility. The 1st of September the condition of the patient was very good. He went to a bathing establishment, and swam three-quarters of an hour without any fatigue. He went home on foot. The next day he ran for more than half an hour, at gymnastic pace. His muscular energy was in very good order. Succi is a man forty-five years old, who has travelled a good deal in Africa, and has been thought mad for a time: in fact, he has been shut up in a mad-house in Rome. The herbs from which his liquors are extracted grow in Africa, but are also found in Italy.

Among recent publications, space allows only notice for two. One of them is a little book published by Professor Forel of Lausanne, concerning the Lake of Geneva; Lake Leman, as all the inhabitants of Canton de Vaud call it, having some antipathy to the name of Geneva and to the inhabitants of the town. This book is a very interesting one, and it could be used as a model for similar works. Forel gives details concerning the situation, form, altitude, depth, dimensions, and affluents of the lake; the currents therein; the waves and winds; the chemical analysis of the water, its color, temperature, and singular barometric oscillations (the *seiches*), etc. A good part of the book is devoted to the fauna and flora, and to the prehistoric remains that have been found on its borders. Of course, the facts contained in this book are especially interesting to inhabitants who live in the vicinity of the lake. The plan is a very good one, and may be of use to persons engaged in similar pursuits, concerning some other lake or large body of water.

The other book is a short pamphlet by Dr. U. Perronnet, and treats of mental suggestion. It is a very interesting little work, relating curious facts, and that seems to be appreciated by competent persons. Two works are in preparation on the same subject, — one by Dr. Ochorowitz; the other, by Dr. Baréty of Nice. These two works will be interesting, their authors being especially competent, which is not the case in many others recently published, and of which I prefer not to speak.

V.

Paris, Sept. 14.

VIENNA LETTER.

A NEW and very sensitive test for cellulose and vegetable fibres has been described recently by Dr. Hans Molisch, an assistant at Professor Wiesner's phyto-physiological laboratory. It is based on the fact, that, by the action of water and concentrated sulphuric acid, cellulose is converted into sugar, or, to speak more correctly, into dextrine and dextrose: therefore vegetable fibres consisting mainly of cellulose exhibit indirectly the reactions of sugar. The importance of this new test for detecting adulterations of wool, etc., can easily be understood.

An important discovery in reference to cellulose has been made here. It was generally assumed till now that the occurrence of this body was restricted to the vegetable kingdom, and to a few families of invertebrated animals — viz., the *Ascidia* and *Tunicata* — containing tunicin, or animal cellulose, in their 'mantle.' Now, Mr. Ernst Freund claims to have found cellulose in the human blood and organs under particular pathological conditions. These conditions are produced by tuberculous disease. Taking into consideration some etiological facts, especially the effect of the quality of food on the spread of tuberculosis among the population, Freund was induced to examine if cellulose may be a chemical substratum for the formation of tuberculous growths. The tuberculous organs (lungs, spleen, miliary tubercles of the peritoneum) and blood, when treated properly, yielded an organic non-nitrogenous body, belonging, as it was proved by ultimate analysis, to the carbo-hydrates, and possessing all the properties of cellulose. In all the cases, — those taken from normal organs, and those afflicted by various non-tuberculous diseases, — Freund failed to find cellulose at all: therefore he feels himself compelled to conclude that cellulose is a typical constituent of tubercles and of the blood in tuberculosis.

The seventh meeting of the International congress of orientalist will be held here from Sept.

27 till Oct. 2. Many illustrious orientalist, especially Indians, will be present, more than three hundred and sixty members being already announced. The principal orientalist's associations will send their delegates. More than forty papers will be read, among them some on ethnological matters. The publication of the so-called 'Fajum papyros' found some years ago in Egypt, being now in possession of the Archduke Rainer, promises to be of great interest.

On Sept. 2 the highest European meteorological observatory was dedicated solemnly. It is situated on the Somblick Mountain (near Rauris, Salzburg), 3,103 metres above the sea-level, and consists of a tower and three other rooms. It is supplied with all the necessary meteorological instruments, and is connected by telephone with the nearest telegraph-office. Herr Rojacher, proprietor of the Rauris mines, has aided the progress of the work in a very munificent manner.

The number of medical students at the Vienna university is rapidly increasing. During the winter session just past, 2,407 ordinary and 266 extraordinary students were there matriculated. The minister of public instruction, therefore, issued a circular to the medical department of Vienna university, asking if the number of students would not have to be restricted by introducing a *numerus clausus*.

As I am now informed, the mantle of Auer von Welsbach's lamp, described already in a previous letter, is prepared by impregnating the gauze with solutions of salts of zirconia, oxides of lanthanum (and yttria).

V. C.

Vienna, Sept. 14.

NOTES AND NEWS.

CASES of so-called hydrophobia, in which an interval of years elapses between the bite and the appearance of the disease, are to be regarded with suspicion. Dr. Jardin-Beaumetz, in a communication to the Conseil d'hygiène, gives the interval, or the period of incubation, as it is termed, as averaging between three and four months, in fifty-eight cases of hydrophobia in man, observed since 1881. A well-authenticated case, which is a striking exception to this rule, has recently occurred in France, in which nineteen months elapsed.

— Mr. Arnold Hague, of the U. S. geological survey, who is now in the Yellowstone national park, writes that the accounts which have appeared in various newspapers, of an outbreak of the Excelsior geyser coincident with the date of the recent earthquake that was so destructive at Charleston on Aug. 31, are entirely without foundation. He has been studying this geyser for the last four years,