

available for the assistance of municipal effort in this direction. In certain cases, however, the initial equipment of ground suitable for the purpose, which has already been acquired by local authorities, might prove an obstacle in the way of the early establishment of play centres. The committee, therefore, proposes to consider favourably applications for grants from local authorities for the preparation and equipment of such open spaces for children's playgrounds, on condition that the authorities are prepared to maintain them.

#### *Library Policy.*

The committee expressed the view last year that consideration of library matters should not be deferred entirely on account of the war, and that steps should be taken to strengthen a movement which will occupy a place of increased importance after the cessation of hostilities, when various reconstructive measures—educational and social—will call for prompt attention. Endorsement of this view has been given by the increased interest taken in libraries, and their future position in the educational system of the country, by those who are engaged in the consideration of reconstruction after the war. Probably the library movement has never before received the same degree of public attention as during the past twelve months.

There is a universal consensus of opinion in the library world that the greatest barrier to progress with which the public library movement is confronted is the present limitation of rate aid; in this view the committee fully concurs. It is useless to expect the library movement to fulfil its enlarged function in the educational system of the future, unless adequate means are forthcoming for its efficient development and maintenance. From time to time suggestions have been placed before the trust to the effect that it might supplement by endowment the meagre incomes at present available, and so make up for the deficiencies which exist in numerous instances owing to the inadequacy of the rate produce. Any step of this character would, in the opinion of the committee, be disastrous, and inevitably postpone the day when larger rating powers are placed within the reach of local authorities.

The Library Association has instituted an inquiry into the existing provision of scientific and technical literature in public and other libraries in the United Kingdom. Probably there is no branch of public library work relatively so neglected at the present time as that which deals with technical literature. The reason is not far to seek. Technical books bearing on industrial operations, scientific and commercial, are costly, and rapidly become out-of-date. The meagre income available for the purchase of books does not, as a rule, allow of extensive outlay in this direction. Book selection committees are apt to look askance at proposals which involve a substantial expenditure for the acquisition of a single work. But in the future, when the public libraries become more closely correlated with the educational system of the country, their reference sections will come to be of increasing importance. The existing state of affairs needs further examination, and the trust has responded to an appeal from the Library Association in order that a complete review may be obtained.

The activities of the Central Library for Students have continued to widen, and its work has promise of considerable importance in the future. The function of the library is to supply students with the loan of necessary books which they are not in a position to obtain otherwise. The books are lent, as a rule, to classes organised under the Workers' Educational Association, the Adult School Movement, or other similar organisations of working men and women engaged in systematic courses of study; they are also

lent to individual students. At the present time there is necessarily a considerable number of students who are prevented from following their studies in the usual manner by reason of their absence from the United Kingdom. In neutral countries and in enemy countries hundreds of students are interned, and consequently cut off from access to text-books. The British Prisoners of War Book Scheme is a voluntary organisation expressly constituted to supply books and literature to British subjects so situated. In normal times these students would have enjoyed the facilities provided by the Central Library for Students, and the committee has accordingly made a special grant to the Central Library in order that the organisation named above may supply more adequately books of study to those who are at present abroad. It is hoped that on the cessation of hostilities these books will be returned to this country, and, in that event, it has been arranged that they shall be handed over to the Central Library as a permanent addition to its contents.

#### UNIVERSITY AND EDUCATIONAL INTELLIGENCE.

MR. THOMAS J. MACKIE has been appointed professor of bacteriology in the South African Medical College, Cape Town.

The impending resignation of the chair of materia medica and clinical medicine in the University of Edinburgh by Sir Thomas R. Fraser, F.R.S., is announced.

MR. F. J. HARLOW has been appointed to succeed Dr. R. S. Willows as head of the mathematics and physics department of the Sir John Cass Technical Institute.

DR. T. FRANKLIN SIBLY has been appointed professor of geology at Armstrong College, Newcastle-upon-Tyne, in succession to the late Prof. Lebour. Dr. Sibly has been since 1913 professor of geology at University College, Cardiff, and was lecturer in geology at King's College, London, during the preceding five years. He was an 1851 Exhibition Research Scholar in 1905-7, and is a doctor of science of both London and Bristol Universities.

The course of public lectures on "Some Biological Problems of To-day" will be continued in the second term at University College, London, on Mondays, at 2 p.m. instead of at 4 p.m., as in the first term. Major Martin Flack, member of the research staff of the National Medical Research Committee, will lecture on "The Physiological Aspects of Flying" on May 6; and Dr. H. M. Vernon, of the University of Oxford, will lecture on "Industrial Efficiency and Fatigue" on May 13. Further particulars of the course may be obtained by sending a stamped addressed envelope to the Secretary, University College, London (Gower Street, W.C.1).

A SERIES of pamphlets urging the national necessity for the passage of the Education Bill, providing compulsory whole-time education until the age of fourteen and compulsory part-time education for some years afterwards, has been issued and distributed by the Messrs. Tootal Broadhurst, Lee Co., Ltd., of Manchester and London. A set of four leaflets is entitled "The Great Decision," and the various parts are called "Now or Never," "Our Success or Failure," "A Just Complaint," and "A First Step." Throughout they urge the paramount importance of improved educational facilities, if the future well-being of the nation is to be assured. Over and above the proposals of the Education Bill, one leaflet urges that "a straight road to the university should be open to all who desire the fullest development of their intellect. Only by

such provision for complete knowledge of the arts and sciences can we as a nation maintain our place in the world." Each of the pamphlets appeals to the reader in the following words:—"For your own sake, your children's sake, your country's sake, do all you can to push through the Education Bill. Get in touch with your M.P."

THE following letter from Lord Stamfordham, the King's private secretary, has been received by Mr. Fisher, President of the Board of Education:—"It has given the King and Queen much pleasure to visit recently schools of various types, and thus gain an insight into the daily life of the rising generation at work and at play. Their Majesties are aware of the magnificent response which the educational service throughout the country has made to the demands of the present time, not only in its contribution to the fighting forces, but also in the assistance which it has rendered in many kinds of important war work. Above all, they wish to express their admiration of the self-denial and devotion of the teachers, who, it is evident, while training the mind and body of their pupils, recognise the importance of the formation of character. These visits have brought home to the King and Queen the keenness and patriotism of the youth of the country. They realise the unselfish and hearty manner in which boys and girls, inspired by the example of their teachers, have formed War Savings Associations, subscribed money for charitable purposes, and, by their handiwork, contributed to the personal needs and comforts of the troops. Their Majesties feel that the nation can be proud of its young sons and daughters, whose example during this great war augurs well for the future of our race. I am commanded to request you to convey to the school authorities and teachers the hearty congratulations of the King and Queen upon the admirable manner in which the public service of education is being maintained, the progress of which their Majesties will ever watch with interest and sympathy."

### SOCIETIES AND ACADEMIES.

#### LONDON.

**Royal Meteorological Society**, April 17.—Sir Napier Shaw, president, in the chair.—E. G. **Bilham**: The variations of underground water-level near a tidal river. The paper is chiefly devoted to a comparison of records from the Kew Observatory water-level recorder and the Richmond Lock tide-gauge for a period of two years beginning May, 1914. The seasonal variations, determined from lunar-monthly means, were found to be very similar, as was to be anticipated on general grounds. A better method of determining the extent to which the variations of sub-soil water-level were directly controlled by the River Thames consisted in the analysis of the well records to find tidal oscillations analogous to those which were well-marked in the river. The well responds but slightly to the lunar semi-diurnal tide, but the lunar-fortnightly oscillation is well reproduced with a lag of five days and a reduction of amplitude in the ratio of 1 to 14 (approximately). After allowing for the direct action of the river, the well is found to be very sensitive to local rainfall during winter months. The effects of rainfall upon river-level and underground water-level appear to be in many respects closely similar.—J. **Fairgrieve**: Suggestions as to the conditions, precedent to the occurrence of summer thunderstorms, with special reference to that of June 14, 1914. The paper deals particularly with the thunderstorm of June 14, 1914. The meteorological phenomena accompanying the rainfall are put on record. The cloud distribution, the barometric pressure, the wind move-

ments, and the temperature are specially dealt with. From an examination of the data it is evident that the clouds and the rainfields lie in parallel belts, and that the former appear some hours before the rain begins to fall. It is suggested that this belting of wind and rain may be due to rippling on a large scale, the rippling being brought about by the interaction of two currents of different temperatures. If the conditions are unstable, and especially if relief also induces disturbance, thunderstorms will develop along lines of rippling, and will drift with the wind. Thunderstorms have apparently three movements, a development along a belt, a sideways movement in the direction of the prevailing wind, i.e. to leeward, and a spread to windward. The first may be due to rippling; the second is a drift; the third may be explained if it is granted that a local ridge of high pressure develops along the axis of the thunderstorm. The thunderstorm then breaks up into two belts, of which the leeward soon dies out owing to the lack of a supply of rising air.

#### PARIS.

**Academy of Sciences**, April 8.—M. Paul Painlevé in the chair.—Col. **Vallier**: Obituary notice of Gen. Zaboudski. Gen. Zaboudski, correspondant in the section of mechanics, was assassinated in Petrograd in March, 1917, but his death has only recently come to the knowledge of the Academy.—A. **Lacroix**: Some sodium rocks, lode-like in character, of the Archipelago of Los, French Guinea. Thirteen minerals are described and complete analyses given. Even in the rocks most removed from syenites the alkaline character persists, with a predominance of soda over potash. The connection between the lodes and the surrounding syenites is also indicated.—E. **Fournier**: The causes and effects of the resistance of water to the translation of ships' hulls.—L. **Maquenne** and E. **Demoussy**: The influence of acids on germination. Care has to be taken to prevent the disturbing influence of calcium salts on the experiments, calcium derived either from the water or from the integuments of the seeds themselves. It is concluded that the mineral acids, even in extreme dilution, are poisonous and hinder germination.—E. **Ariès**: The anomalies presented by the saturated vapour pressures of certain diatomic liquids. A comparison of the formula derived by the author in previous communications with the experimental figures for oxygen and nitrogen shows marked differences; the data for nitric oxide are also not in agreement with the calculated figures. The causes of the divergence are discussed.—B. de **Fontviolant**: Strains developed in bridges with straight girders, with double lines, when one line only is loaded.—D. **Eydoux**: Conduits closed at both ends. Accumulators and buffer cylinders.—E. **Baticle**: The determination of the most advantageous dimensions of the principal elements of a hydraulic installation.—A. **Mailhe** and F. de **Godon**: A new preparation of the methyltoluidines by catalysis. The method described in a preceding communication of preparing monomethylaniline and dimethylaniline by passing a mixture of the vapours of methyl alcohol and aniline over alumina heated to 350° to 400° C. is now shown to be applicable to the preparation of the methyltoluidines.—E. **Belot** and C. **Gorceix**: The experimental reproduction of the formation of great mountain chains.—E. **Hesse**: *Cauleryella anophelis*, a schizogregarine parasite of *Anopheles bifurcatus*.—R. **Combes**: The equine paratyphoid bacillus.—A. **Vernes**: The precipitation of an organic colloid by human serum, normal or syphilitic. It is shown to be possible so to regulate the state of a colloidal suspension that it can be flocculated by syphilitic serum, and not flocculated by normal serum.—R. **Dubois**: The synthesis of luci-