

officers respectable honorary stipends. In the American Mathematical Society and the Mathematical Association of America there are four such officers to whom honorary stipends of at least \$1,000 each should be given annually. For this purpose an endowment of \$80,000 is needed. In this case again farsighted and loyal individuals are contemplating bequests, and one or two such wills with liberal provisions are known to be already made. Also a special gift toward this end has just been promised to the association for the coming year.

It will be found that the totals of the above ten items, as estimated, are as follows: For lump sums \$134,000; and for annual subsidies \$51,700, or, if capitalized at five per cent., an endowment of \$1,034,000. As stated under (6) the provision for mathematical monographs is already made, and under (9) and (10) beginnings have been made by bequests provided for in wills or by special cash gifts. Also in connection with (2) it should be said that the proposition is under favorable consideration by a prospective donor. A donation of this magnitude would, indeed, be a monument worthy of great honor to the donor, and would render a service of untold value to the cause of education. The same may be said in varying degrees of all the items enumerated. It is believed that when information concerning these needs becomes sufficiently widespread there will be liberal responses in supplying the funds.¹

¹ As this article goes to the printer a donor offers to provide the items of \$4,000 mentioned in (4). Also a report in *SCIENCE* for January 13 of grants made by the Heckscher Research Foundation contains three items amounting to \$2,600 for mathematics. Possibly this latter amount is the one quoted in the same issue of *SCIENCE* (page 52) where grants for research in twelve sciences range from \$352,000 for biology down to \$2,600 for mathematics. The compiler seems not surprised that "mathematics brings up the rear," since he says that "it would probably appear to most of us to be the subject farthest removed from practical interests." His surprise will doubtless be great when he contemplates a proposal for a million dollar endowment fund for mathematics.

In this connection, attention may be called to the fact that an important and urgent need of mathematics has already been recognized and met by the General Education Board of the Rockefeller Foundation in financing the work of the National Committee on Mathematical Requirements, a committee working under the auspices of the Mathematical Association of America. This work has extended over a period of three years and the funds supplied will total over \$65,000 when the exhaustive report of the committee is published in a volume of five or six hundred pages.

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SCIENTIFIC EVENTS

BRITISH RESEARCH ON CEMENT

IN order to discover some means of increasing and cheapening the supply of Portland cement, experiments are being made by a panel of experts associated with the British Engineering Standards Association. The object of the research is to ascertain whether cement made from blast-furnace slag can not be made according to a recognized specification which would enable it to be used for work in which Portland cement, manufactured according to the British standard specification, has hitherto been employed.

Mr. H. O. Weller, of the Department of Scientific and Industrial Research, who is a member of the panel, explains in the *London Times* that the British standard specification for Portland cement is recognized all over the world, and has done more than anything else to make Portland cement recognized as a safe material to use. But it is beginning to be recognized that the specification is rather too narrow, and that there is need for a standard specification for iron Portland cement—*i. e.*, cement to which a small portion of blast-furnace slag has been added after clinkering. Cement of this character was first tested in Germany in 1902, and by decree of the Prussian Ministry of Public Works, in 1909, was sanctioned for use in the erection of German public buildings. This cement has come into England in fairly large quantities in recent

years. By all the recognized physical and chemical tests this cement passes the British standard specification, but in respect of manufacture it would be barred because slag has been added to it after clinkering. In Scotland a form of this cement has been made for the past 11 years called Coltness Portland cement.

In addition to increasing sources of supply, the Department of Scientific and Industrial Research is making inquiries into the question of the more economical working of processes which have become traditional, with a view to spreading the knowledge thus gained. There is an inquiry at present going on into the economical use of fuel in the burning of bricks. The greatest experts in the country at present find themselves at a loss to state exactly the total quantities of coal needed to burn bricks, and the practice varies most illogically in different brickfields.

Another inquiry is being conducted into the question of the gas-firing of kilns. This method of firing is in use in the potteries for firing clay goods, and it has been used in Scotland for the past 40 years for burning fire-bricks. But the object of the present inquiry is to ascertain whether it can be used for firing ordinary bricks. An expert investigator is being sent over England, Belgium, Germany, and the United States of America to collect the latest data.

THE GORGAS MEMORIAL INSTITUTE

As has been noted in SCIENCE, Dr. Richard P. Strong, head of the Harvard School of Tropical Medicine, has been appointed scientific director of the Gorgas Memorial Institute which will be established at Panama for the study of tropical diseases. Dr. Strong will continue his connection with the Harvard School.

The *Harvard Alumni Bulletin* states that the Gorgas Memorial will constitute a tropical station for the Harvard School of Tropical Medicine and for other medical schools. The work in the laboratories at Panama will be separated into four divisions: 1, bacteriology and pathology; 2, protozoology and helminthology; 3, entomology; 4, biological chemistry and pharmacology.

There will be intimate association and co-operation between the Gorgas Memorial Institute and the Santo Tomas and Ancon Hospitals and the Palo Saco Leper Asylum, and the patients in these institutions will be available for observation and study. Venomous animals, poisonous plants, tropical climatology, and the biological effects of sunlight, will also receive attention in the work of the institute.

Provision will be made for advanced instruction in tropical medicine and hygiene of a limited number of properly-qualified graduates of recognized medical schools. A limited number of advanced students will also be admitted for special investigation upon tropical diseases and their prevention.

Properly-qualified volunteer workers will also be received and the privileges of the institute will be extended and a special effort made to attract experienced investigators from scientific institutions in different parts of the world, to carry on researches which can particularly favorably be conducted in a tropical country. It is especially hoped that members of scientific faculties will avail themselves of this opportunity during their sabbatical years or other periods of university leave.

The larger part of the research work of the institute will be carried out in the laboratories in Panama, but it is also contemplated that from time to time field expeditions will be sent to other portions of the tropics for the solution of special problems in connection with the diseases of men or animals.

THE TEACHING OF EVOLUTION IN THE KENTUCKY SCHOOLS

A BILL has been introduced into the Kentucky legislature forbidding the use of textbooks in the public schools in which the doctrine of evolution is taught. The movement is said to have been forwarded by lectures in the state by Mr. William Jennings Bryan. A number of telegrams have been addressed to Dr. Frank L. McVey, president of the University of Kentucky, among which are the following:

Cannot believe that any American legislature can be induced to prohibit the teaching in public schools of evolution or of any other scientific