leave for France. The fellowships carry with them stipends of $3,000 and no obligations other than that of making a year's trip around the world and the rendering of a report thereon to the trustees.

AN anonymous donor has offered to the University of Cambridge £10,000 towards the endowment of a chair of astrophysics.

THE University of Birmingham having received an offer from the Board of Agriculture of a grant-in-aid, to be expended in carrying on a research department in agricultural zoology, has appointed Professor F. W. Gamble, F.R.S., as director of the new department.

DR. WALLACE W. ATWOOD, associate professor of physiography and general geology in the University of Chicago, has been appointed professor of physiography in Harvard University.

DISCUSSION AND CORRESPONDENCE

CYTOLOGICAL NOMENCLATURE

THE only possible use for a system of nomenclature is to secure accuracy and convenience in its application. So soon as it produces confusion and becomes unwieldy and cumbersome it defeats its purpose. The real reasons for applying a name to an object are to secure its accurate identification and to facilitate description. It is entirely secondary whether this name is descriptive or not. This fact is fully recognized among biologists in establishing the rule of priority, the sole purpose of which is to secure a definite and permanent relation between an object and its name.

Considerations of this sort apparently have no appeal to cytologists, whose nomenclature is accordingly falling into lamentable confusion. This has resulted very largely from an evident desire to make each term descriptive rather than precise. The same object, whose common identity is recognized by every observer, may, in each study, receive a different name because some real, or supposed, characteristic appeals to the describer. The final result of this practise is easily foretold and is even now making itself manifest. The beginner, instead of being able to acquaint himself with the known facts, is obliged to spend a large part of his time in untangling a complicated terminology; and, unless he has the help of some one personally familiar with the varied career of each term employed, is very apt to go astray. Much time and trouble are also expended by the initiated in discussing the relative descriptive values of the names given to the same object.

It should be the purpose of every investigator to make the machinery of his science as simple as possible and to subordinate everything to the main aim of discovery. The reasonable way to accomplish this is to profit by the experiences of workers in other and older fields and to make such applications of general principles as have been found desirable and necessary in actual practise. It is of little moment whether we are endeavoring to discriminate between two organisms or between two structural elements of these organisms—in either case it is necessary for us to designate the contrasted objects by names which apply to them alone. At the same time it very much simplifies the discussion if but a single term is used for each. Systematists have found that the only way to secure this precision is to insist that the first name applied to any kind of organism be its designation, whether descriptive or not. It seems to me that cytologists may well profit by the hard-earned experiences of the taxonomists and avoid the difficulties of an ineffective terminology. Another practise of systematists that is suggestive of simplicity is the use of qualifying prefixes to well-established words where a new term is called for in the discussion of a subgroup. I feel convinced that a recognition by cytologists of these two principles of nomenclature would do much toward reducing the confusion now existing.

There may be some who do not agree with me regarding the subordinate value of the descriptive element in terminology and who would cite the B N A system of anatomists as a support of their view that terms should be descriptive. The conditions confronting the two classes of workers are, however, entirely

different. The anatomists have a very thorough knowledge of their subject so that they may apply descriptive terms with certainty in most cases, and then, again, their major terms are well fixed by long usage and the modifications proposed in the Basle system are in most cases restricted to qualifying terms. Cytologists, on the contrary, have no such familiarity with their subject and there is lacking an agreement regarding the application of even major terms. Undoubtedly the subject of human anatomy forms the best instance of the possibility of the application of descriptive terms, but even here the necessity for their use is definitely denied and provided against by the fourth principle which reads (Barker, B. N. A.):

> The terms shall be simply memory signs, and need lay no claim to description or to speculative interpretation.

It thus appears that in two of the oldest branches of biological science, general taxonomy and human anatomy, the necessity for definiteness of application in terms, to the neglect of descriptive value, has manifested itself. It would certainly seem the part of wisdom for cytologists to avoid the difficulties which will inevitably arise through the practise now prevailing in their science by applying well-tried methods in their nomenclature.

C. E. McClung
University of Pennsylvania

A SUGGESTED CLASSIFICATION OF WRITINGS ON EUGENICS

The following note is published in response to various inquiries as to a schedule for classifying eugenical writings, for bibliographies, libraries, etc. It lends itself to the decimal system of classification, if desired.

Eugenics

0. Philosophy and bearings of; compendia, essays; periodicals, societies, institutions (record offices, laboratories, etc.), methods, history, bibliography, biography.

1. Racial anthropology.

2. Genealogy or family history, eugenic and cacogenic families.

3. Heredity, including mental traits, normal and pathological (see "Trait, Book of the Eugenics Record Office," Bulletin No. 6).

4. Differential selection of mates and its social control.

5. Differential fecundity and its social control.

6. Differential survival and its social control.

7. Migration and its social control.

8. Culture of the innate traits; relations to eugenics of education, religion, and work for social and individual welfare.

C. B. Davenport
Cold Spring Harbor, L. I.,
February 10, 1913

EQUINE PIROPLASMOSIS IN THE CANAL ZONE

To the Editor of Science: I wish to note the occurrence of equine piroplasmosis in the Canal Zone. The parasite closely resembles *Piroplasma caballi* Nuttall, 1910, and differs from *Nuttallia equi* (Laveran) in not displaying "cross forms."

Equine piroplasmosis has, so far as the literature at hand discloses, appeared in only two other localities in America—São Paulo, Brazil, and Venezuela. The infected animal was an American driving horse that had been on the isthmus several years and no doubt became infected from ticks while driven out into Las Sabanas to the Juan Diaz River. The disease is very likely epizootic in the interior of the republic, for native cattlemen speak of a disease of horses there resembling anthrax.

In view of the fact that among animals in the commission corrals, it has been found that horses, from their use on the trails, become infested with ticks, *Dermacentor nitens* chiefly, while the draft mules, from their restricted use on the roads, usually are not infested with ticks; it is interesting to note that piroplasmosis, a tick-transmitted disease, appeared in a tick-infested horse, while murrina, the trypanosomal disease of equines of Panama (fly transmitted) was confined absolutely to draft animals, tick-infested saddle horses