

free from moisture by the heat supplied from within, and is therefore always in a suitable state for producing electricity by friction against metals or other substance. It is obvious that the corpuscles shot off from the glowing filament and sticking to the inside of the bulb can have little or no part in the production of such high potentials, for the very greatest speed they could acquire would be that corresponding to the voltage of the supply mains. A glass tube filled with hot mercury can, in fact, be used as successfully as the lamp.

This lamp method of producing electricity by friction is so easy to employ, and, moreover, so certain in action (the degree of electrification can be regulated to a nicety), that it is bound to be of interest to users of electroscopes.

R. WHIDDINGTON.

#### Naid or Tubificid?

IN NATURE for November 16, 1911 (p. 78), I directed attention to the fact that a tiny annelid known as *Rhyacodrilus* had been found in England, and that it differed in some respects from the specimens recorded for Switzerland. Some difficulty was experienced by the Continental authorities in assigning it a place. Ditlevsen contended that it belonged rather to the Naididæ than to the Tubificidæ, but Michaelsen in his various publications refers it to the latter. In his "Süsswasserfauna Deutschlands" he specially distinguishes those annelids which reproduce by fission from those which form cocoons, and places the Naididæ in the former group, while the Tubificidæ are relegated to the latter. Then he places *Rhyacodrilus* (= *Taupodrilus*) among the Tubificidæ, because it is possessed of sexual organs.

Aided by a Government grant for the study of annelid bionomics and economics, I have just been able to make an interesting discovery. *Rhyacodrilus* is found in our midland streams, and in the summer is possessed of all the organs belonging to the Tubificids. In the winter and spring, however, it adopts the Naid method of reproduction, and forms a chain (Tierkette). It is therefore a link between the two families, and the question arises: To which does it most certainly belong? I favour the Naid association.

Swadlincote, May 16.

HILDERIC FRIEND.

#### WORK OF THE EUGENICS RECORD OFFICE.

PROF. DAVENPORT and his staff of collaborators and "field" workers have shown great activity in the collection of family histories. The two first of a series of quarto memoirs, beautifully printed at the expense of Mr. Rockefeller, and published by the Eugenics Record Office, contain elaborate accounts of the members of two particular stocks whose claim to fame resembles and rivals that of the Jukes. The "Hill Folk," whose relationships with one another and with their common ancestry were investigated by Miss Danielson, comprise more than 700 persons all descended from two particular individuals who settled near a New England town in about the year 1800. Elaborate calculations as to their cost to the town and State for aid as paupers and for maintenance in prisons and institutions reveal the fact that these charges are constantly and rapidly increasing. Feeble-mindedness, alcoholism and the evils which spring from each or both in combination are terribly

prevalent among them, and their distribution within the families is clearly shown in the extensive pedigree charts which embellish the memoir.

Although Prof. Davenport does not claim that the material here collected is of a kind suitable for the study of inheritance, it is of interest to note that from it he propounds a theory on the transmission of feeble-mindedness of a kind very different from that suggested by himself and Dr. Weeks in their paper "A First Study in Inheritance of Epilepsy" (Eugenics Record Office, Bulletin No. 4, 1911).

According to his earlier view, feeble-mindedness and epilepsy are both due to the absence of a gametic factor the presence of which is necessary for normal development. They are thus transmitted as a simple recessive character which might appear in either or both of these forms.

The material collected in the memoir under review, when analysed, gives results quite incompatible with this theory, and another and more complex one is consequently suggested. In the latter, which is propounded not as a dogma, but as a tentative hypothesis, different types of feeble-mindedness are taken into consideration, and it is supposed that each depends on the absence of a separate factor. Thus when two feeble-minded persons whose defect is of the same type are mated together, all their children will reproduce it, but where the type of mental defect of one parent is different from that of the other, none of their children need necessarily be feeble-minded at all.

The second memoir deals with a family to which the fictitious name of Nams has been attributed. The origin of the Nams is described as follows:—"In 1760 there lived in the mountains of Western Massachusetts a set of people called Nam, descended from the union of a roving Dutchman, who had wandered there from the Hudson Valley, and an Indian princess. These people were wealthy in land, having inherited it from their Indian ancestors." The family in more recent times is said to be characterised by alcoholism and lack of ambition. As in the case of the Hill Folk, Dr. Davenport has prepared a bill of what they have cost the State. We do not, however, agree with his system of accounting, in which everything is entered on the debit side and nothing on the credit. Even the most valuable of citizens would show up badly in this system. Thus the largest item of the Nams' account, forming two-thirds of the total, is their drink bill of rather more than a million dollars, distributed among 700 of them. If we were to take 700 prosperous professional men in England it would not be an overestimate to suppose that each would have a drink bill of something like 5000 dollars in fifty years, or, combined, their total bill for drink would be more than double the total bill of the Nams for all items. Thus, if nothing is reckoned on the credit side, we could come to the surprising conclusion that the Nams were the less unprofitable of the two.

The other publications of the Eugenics Record Office are their octavo bulletins. Of these, eight have appeared, three dealing with the inheritance of insanity. Special attention may be directed to that of Dr. Cotton, the medical director of the New Jersey State Hospital for the Insane (Bulletin No. 8, 1912). E. H. J. S.

*LORD AVEBURY, F.R.S.*

**L**ORD AVEBURY, whose death on May 28 we recorded last week with regret, was a many-sided man, one of those gifted men who, without making any very profound advance in science, yet succeeded in making science acceptable and even welcome to the ordinary man. He was a banker by profession, and an antiquary, a politician, a man of science and of letters by inclination. He was born in London on April 30, 1834, the eldest son of Sir John William Lubbock, third baronet. His school was Eton, which, however, he left at a schoolboy age to enter his father's banking business. Throughout his life Lord Avebury, or, as he was for many years better known, Sir John Lubbock—he succeeded his father in 1865—showed a great capacity for steady, plodding work, not only in the City, but in politics, municipal administration, and in scientific and archaeological research, and his activities were of the widest.

In 1870 Sir John Lubbock was returned for the borough of Maidstone, and he held this seat for ten years. In 1872 he became vice-chancellor of the University of London, and eight years later he was elected member for that university, and for the next twenty years he represented this seat of learning. He was active as a Parliamentarian, taking an especial interest in questions of education and social reform. He made a particularly good university representative, being a man of learning as well as of affairs. Amongst the many good causes he advocated, perhaps the establishment of bank holidays was the one most widely known and the one which will preserve his name the longest. In 1900 he was raised to the peerage as the first Lord Avebury, and it is characteristic of him that he chose a title intimately connected with archaeology.

For many years Lord Avebury was a neighbour of Charles Darwin at Down, Kent, and it may have been their friendship that led to his interest in "Ants, Bees, and Wasps"; "The Senses, Instincts, and Intelligence of Animals"; "The Collembola and Thysanura"; "Flowers, Fruits, and Leaves," and in "The Origin and Metamorphoses of Insects," as five of his most illuminating books are entitled. He and his helpers added materially to our knowledge of the habits and instincts of social and other insects, and to our acquaintance with the activity of many forms of vegetable growth. His work, indeed, did much to pave the way for the great interest now taken in insects, especially at present in relation to the conveyance of disease.

But Lord Avebury by no means confined his attention to biological studies. He was an expert

on banking; he was the first president of the Institute of Bankers, president of the London Chamber of Commerce, and for twenty-five years he was secretary of the London Bankers Association and president of the Central Association of Bankers. For five years he was president of the London Chamber of Commerce, and he published important treatises on coins and currency, and on municipal and national trading. His was a very steady influence on the commercial world. Without having the dominant influence of a Pierpont Morgan, or the great American banker's power of handling a financial crisis, he had an infinite capacity for mastering detail, and a great gift for bearing in mind many things of importance which are apt to be overlooked in the ordinary course of business.

Lord Avebury took much interest in municipal government, and was vice-chairman of the London County Council in 1889 and 1890, and chairman from 1890 to 1892. Nor must it be forgotten that he was principal of the London Working Men's College, and did most admirable work in connection with that institution. His "Hundred Best Books" was the result of a lecture delivered at the college.

Few men have attained eminence in so many subjects, an eminence which would satisfy many a specialist. Part of this eminence was due to a gift of style. An American contemporary once described him as an "elegant British writer on bugs." Even his most strictly scientific monographs were written in an engaging manner, and none more so than his "Origin of Civilisation and the Primitive Condition of Man," which is now in its sixth edition. Perhaps of his scientific works "The Scenery of England" and "The Scenery of Switzerland" are the most enduring. The former is still recommended by the teachers in many a university as a most admirable introduction to the study of geology. He seemed to have an instinct for knowing "what the public wants," and his more popular literary works appealed widely to "the man in the street." "The Pleasures of Life," "The Use of Life," "The Beauties of Nature," sold by the hundreds of thousands—in fact, a quarter of a million of "The Pleasures of Life" have already been disposed of, apart from more than forty foreign editions. These books, though they partake of the nature of reprinted commonplace books, certainly hit the popular taste, and were in their influence wholly healthy and helpful.

In our restricted columns it would be impossible to enumerate the numerous associations over which Lord Avebury presided. He was, indeed, to paraphrase an Elizabethan phrase, "President General to the Age." He was president of the British Association in its jubilee year, and president of the Entomological, Ethnological, Linnean, Statistical, African, and Ray Societies; president of the Anthropological Institute, of the International Institute of Sociology, and of the International Association for Prehistoric Archaeology; of the International Association of Zoology, and of the