the expressions *constant form* (frequent in Mendels paper) ard *inconstant form.*

The proposed terms are simple, easily remembered and not spoiled by previous functioning in the literature of plant or animal breeding. They imply nothing as to the origin of the zygote, thus eliminating any possible suggestion that homozygous individuals necessarily arise from pure-breeding and heterozygous ones only from mixed breeding. The word constant conveys the valuable impression that there is a dependability in the germ cell formation of the homozygote, but it will be necessary to give warning that the word inconstant is not meant to suggest complete lawlessness in the breeding results of the heterozygote. However the word heterozygote itself and all substitutes hitherto proposed are defective in that none of them gives a hint as to the law of gamete formation in heterozygotes. While *inconstant* is thus open to the objection that it might convey misformation, it obviously emphasizes a point of essential importance to the breeder. Hybrid and other substitutes also require a word of explanation, since many hybrids are popularly supposed to breed true, but to retain such an impression would be worse than suggesting excessive irregularity. In short, the new terms if adopted would derive much of their value from the fact that a breeder will be quick to realize which kind of individual he wants in his herds or flocks and will thus be interested in knowing how the two types arise.

It is to be hoped that these two words or similar inoffensive ones will be accepted or at least not repudiated by professional geneticists. Some sort of agreement—either by common consent or by general indifference—will be necessary before the conscientious expounder may introduce the words to an audience without mentioning their technical equivalents.

Nothing in this note must be interpreted as a desire to displace homozygous and heterozygous or cognate forms from the technical literature.

Frank J. Kelley
States Relations Service,
U. S. Department of Agriculture

SOME PORT HUDSON OUTCROPS IN LOUISIANA

The Port Hudson beds, so named by Hilgard from their exposure at Port Hudson, La., consist for the most part of beds of clays, usually bluish or black but occasionally yellowish in color. At Port Hudson, La., the type locality, the lower beds consist of black to bluish tenacious clay with frequent logs, stumps and fragments of wood, mostly cypress. At St. Francisville, La., nine miles northwest of Port Hudson, the black, cypress bearing clays outcrop at Black Hill, one half mile east of the town with the following section:

20–25 feet of loess.

4 feet of waxy black and brown tenacious clay with fragments and limbs of cypress, Port Hudson.

2 feet of massive gray and brown sands with scattering sub-angular chert pebbles, probably Lafayette.

The upper beds of the Port Hudson were evidently eroded before the deposition of the loess. The black clay lies uncomformably on the Lafayette below with very sharp line of contact. Apparently the same black clay bed is to be seen in the bed of Scott Creek, near Laurel Hill, La., about 21 miles north of Port Hudson and 3 miles south of the La.-Miss. line. Evidently the lower Port Hudson beds in places underlie the western Florida parishes of Louisiana and probably also the adjacent southern counties of Mississippi.

F. V. Emerson
Louisiana State University

QUOTATIONS

THE RECOMPENSE OF SCIENTIFIC WORKERS

We are very glad to hear that the Science Committee of the British Medical Association has elected a sub-committee to confer with the British Science Guild and other bodies "in the matter of the inadequate recognition and recompense by the government and other bodies of medical workers in the field of science." We are also glad that the Science Guild is nominating some of its members to confer with this sub-committee of the British Medical Association. The members are as follows: For the British Medical Association,

Sir Clifford Allbutt, K.C.B., F.R.S., Dr. R. T. Leiper, Professor Benjamin Moore, F.R.S., Mr. E. B. Turner, F.R.C.S., Professor J. S. Haldane, F.R.S.; and for the British Science Guild, Professor Bayliss, F.R.S., and Dr. Somerville (Chairman and Secretary of the Guild's Health Committee), Sir Alfred Keogh, G.C.B., and Sir Ronald Ross.

We have called attention to this matter in *Science Progress* over and over again, without any definite result hitherto. There is unlimited talk just now about the encouragement of science, but the vital point is almost always omitted. This point is that, unless you make it worth their while for men of great abilities to investigate nature, they will in many cases not be able to do so even though they have the strongest inclination in that direction. We are now spending large sums of money for scientific work, but most of it goes in providing laboratory facilities and small salaries to junior men for "pot-boiler work." This is certainly essential, and we lodge no objection to such expenditure; but, in addition, we must pay adequately for the best possible brains. There is only one way to do so—by paying for discoveries which have already been made. There is really no other way of detecting the best possible brain when it exists. The proof of the pudding is in the eating, and, of the best brain, in the result obtained by it. We therefore think that the world should organize a system of pensions, not only for medical, but for all work which has been of great value to the public at large without being remunerative to the worker. Such a thing is only common sense, common justice and common morality.

The case of the medical scientific worker is the strongest of all. Few people recognize that medical science brings in almost no payment even when it results in discoveries which are really revolutionizing civilization. The fact is that, of all great events in history, perhaps none exceed in importance the discoveries made during the last century regarding the nature of human diseases and their prevention and cure. Yet the people who have made these discoveries have generally lived, we might almost say, in extreme poverty. We believe that the salaries of pathological professors amount generally to only a few hundred a year, and seldom, if ever, exceed one thousand pounds a year. Even these posts appear to be seldom given to men who have themselves made leading medical discoveries. Some people seem to think that such men are remunerated by medical practise; but that is far from the case, and anyway it is a poor kind of remuneration which is given only by means of additional work. For example, Jenner, the great discoverer of vaccination, found that his reputation in this line actually ruined his medical practise; and it was partly for this reason that early last century the British Parliament (which was then a rational and virile body) gave him £30,000 as a reward. The reason for this is that everyone considers a famous discoverer to be only a faddist or a charlatan! Of course many other pursuits which are invaluable to civilization are in precisely the same boat—other branches of science, music, literature and sometimes even painting, travel, etc. Our proposal is that every nation should keep a pension fund for really great work in these lines. We do not suppose that the British Empire would have to pay more than, say, £30,000 annually for such pensions, as against many millions of pounds which it now gives as a subvention for loafing, incompetence, and unemployment.—*Science Progress.*

SPECIAL ARTICLES

A METHOD OF ASSIGNING WEIGHTS TO ORIGINAL OBSERVATIONS

PERSONS accustomed to making precise measurements know that the circumstances attendant upon their work vary to such a degree as to render some observations much more reliable than others. When a series of such results is adjusted, as by averaging the measurements on a single quantity, it is logical that some should be given greater voice in deciding upon the most probable value. This is done by assigning to each observation a number, called its *weight*, which represents the relative degree of reliability of the observation in question. The practical