known studies and was carried out with Castle's own material and with his cooperation and help. The experiments now reported show that the Nilsson-Ehle explanation of "blended" inheritance (i. e., two or more nonallelomorphic factors producing phenotypically similar phenomena) may be applied to size

differences in hybrid rabbits. The fact that crosses between negroes and whites give mulattoes has long been pointed to as proof of "blending." But, as is well known, various pigments are here involved, viz., black, red and yellow. Davenport<sup>2</sup> has shown clearly that the children of two mulatto parents exhibit great variation in color. Occasionally some are light enough to "pass for whites" when away from home. The explanation of this phenomenon, as based on multiple factors, is suggested by Davenport. In the light of MacDowell's own work and the work that he cites there can be little doubt of the correctness of this view. Probably there are separate factors (determiners) for the several pigments and more than one, perhaps many, for the black pigment.

A quotation from MacDowell's paper shows the conclusions drawn from his studies of rabbits. But his statements may be applied to human skin color and, no doubt, to many heritable characters of human beings:

Offspring from crosses between extremes are generally of an intermediate nature. In the following generation new forms appear that are similar to the original parents or even more extreme. The greater number of individuals are intermediate. In certain cases crosses between similar lines. after a first generation like the parents, give a second generation in which a wide range of grades appear. These are the facts definitely ascertained from the work that has been done. . . . The interpretation of multiple factors can be applied to all the facts. It goes hand in hand with the mutation and pure-line doctrines of de Vries and Johannsen, and in its breadth of application, and its comprehensive simplicity, this theory, based on the assumption of the segregation of distinct units, is very attractive; by its use as a working hypothesis important facts have been discovered;

2" Heredity in Relation to Eugenics," pp. 36-38, New York, 1911.

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its acceptance and further development will help to establish a broad and unified system of heredity.

Doubtless many "well-informed" persons still hold to the idea of "blended" inheritance. It is with the hope of calling attention to the Mendelian phenomena involved that this note is submitted. A careful reading of MacDowell's article will clear up many puzzling difficulties for those who are interested in heredity but have not kept up with the literature of the past few years. FRANCIS RAMALEY

UNIVERSITY OF COLORADO,

BOULDER, COLO.

# DIADOPHIS PUNCTATA IN NORTHERN WISCONSIN

RUTHVEN<sup>1</sup> has recorded the occurrence of the ring-necked snake, Diadophis punctata (Linnæus), at Marquette, Michigan, on the strength of specimens having "been taken by Dr. Downing," but later the same authority states: "The Marquette record is particularly open to question and has not been recorded upon the map."<sup>2</sup> Not having seen a specimen from Marquette, Ruthven was perfectly justified in making his later statement, in view of the fact that the locality was considerably beyond the known northern geographic range of the species. It may be interesting, however, in this connection to note that on July 5, 1912, I collected a specimen of this species near Rhinelander, Oneida county, Wisconsin, a locality about 120 miles west-southwest of Marquette, Michigan. The snake was found, one and one half hours after sunset, extended full length across the wheel tracks of a sandy road bordering low second-growth woods of Pinus divaricata, Betula papyrifera, Populus tremuloides and Quercus coccinea; in the late twilight the animal was scarcely visible from the wagon in which I was driving. It made no resistance to being captured, was perfectly docile, and soon became tame. It showed a tendency towards positive reaction to contact

1 Ruthven, A. G., 1906, Report Geol. Surv. Michigan for 1905, p. 111.

2 Ruthven, A. G., Thompson, C. and Thompson, H., 1912, "The Herpetology of Michigan," Michigan Geol. and Biol. Surv., publ. 10, p. 107. stimuli and a negative reaction to strong light, factors which may, in part, determine the nocturnal and hiding habits of this species. Unfortunately I was not favorably situated at the time for an extensive study of the habits and behavior of the animal, and it was, therefore, the next day preserved as a specimen.

On account of the rarity of this species in the northern part of its geographic range it seems that a brief description of this specimen is not amiss. The general color of the back can best be described as dark bluish olivebrown; the ventral parts, labials and neck-band (two scales wide) are salmon pink, being slightly darker postero-ventrally and sightly more yellowish on the supralabials and neckband; a series of about 40 small black spots are scattered irregularly in a single midventral line from the 41st to the 144th ventral plates, being more numerous between the 86th and 144th ventral plates. The total length is 335 mm.; tail, 80 mm. The scutellation is as follows: dorsal scale rows, 15; ventrals, 156; subcaudals, 53; supralabials, 8-8; infralabials, 8-7; oculars, 2-2; temporals, 1-1.

# HARTLEY H. T. JACKSON U. S. DEPARTMENT AGRICULTURE

#### SCIENTIFIC INSTITUTIONS MINUS SCIENCE

In recent years the question has much occupied the public mind whether fraternities in schools and colleges are desirable or not. Those who favor the negative, often point to the low scholarship of the members of fraternities. The fraternities have reacted by strenuous efforts to raise the scholarship among their members. One of the national organizations recently offered a loving cup to that chapter in a group of universities of the Middle West which would make during the year the highest scholarship record. The national officers asked two members of the faculty of the University of Missouri to select the chapter. That ought to be easy. But it was found impossible. To make such an award, it is not sufficient to know that each chapter got so many A's, B's etc., or so many 95's, 90's, etc., whatever the symbols may be in each institution. It is absolutely necessary

to know the frequencies of these grades in the whole student body of the institution. But none of these institutions, except one, could furnish these data, although, without the frequencies being known, their grades are practically meaningless. Here, then, we have institutions which are generally regarded as the representatives of science. But to apply science to the grades, of which they record year after year thousands, and without which they appear to be unable to get along, that does not seem to have occurred to the administrations of most of them. Their alumni look with amazement upon their alma maters which can not furnish the data for the solution of so simple and so proper a problem as that of awarding a loving cup to a group of students who have distinguished themselves by their scholarship.

MAX MEYER

UNIVERSITY OF MISSOURI

THE LANGUAGE OF THE BRAZILIAN PEOPLE

To THE EDITOR OF SCIENCE: Regarding the review of the work entitled "Fosseis Devonianos Do Paraná," published in the March 13 issue of SCIENCE by Dr. Chas. K. Swartz, Baltimore, Md., in the last paragraph where it mentions the work done by Dr. John M. Clarke, for the Department of Agriculture, Commerce and Industry (Geological and Mineralogical), I find a mistake in his stating that the work is published in the English and Spanish languages in parallel columns. Mr. Swartz should have said that it is published in Portuguese and English, the former being the universal language of the Brazilian people.

### E. BRAGA

# QUOTATIONS

#### PROFESSORS IN COUNCIL

In the circular letter that was sent out in the spring of 1913, looking to the formation of a national association of university professors, the motive actuating the signers was indicated in the statement that, besides his interest in his specialty, the university professor is "concerned, as a member of the legis-