

All the above results meet the highest Mendelian expectation on the assumptions made regarding character pairs and dominance. We should expect some departure from the highest expectation. In the following we find it.

The same *RB* boar used in the last cross was bred to a one eighth Duroc-Jersey (red-*R'*) seven eighths Poland China sow having perfect Poland China markings. The highest expectation is shown in the formula of this breeding.

$$\begin{array}{c}
 \left. \begin{array}{c} R \\ W \end{array} \right\} \left. \begin{array}{c} W_r \\ B \end{array} \right\} \left\{ \begin{array}{c} \frac{1}{2} Wb \\ \frac{1}{2} RB \end{array} \right\} \\
 \left. \begin{array}{c} R' \\ B \end{array} \right\} \left. \begin{array}{c} R'B \\ B \end{array} \right\} \left\{ \begin{array}{c} \frac{1}{2} R'B \\ \frac{1}{2} B \end{array} \right\} \left\{ \begin{array}{c} \frac{1}{2} RB \\ \frac{1}{2} B \end{array} \right\} \\
 \qquad \qquad \qquad B \qquad \qquad \qquad B_1
 \end{array}$$

The Duroc-Jersey red (*R'*) seems to have been eliminated in the breeding of the dam *B*₁. Here the highest expectation is that half of the progeny should show red markings; four of them were red and black spotted and two nearly pure red with a few black spots, indicating that they were all of the *RB* type, a case the probability of which in this particular cross is one sixty-fourth.

The above results can not be regarded as conclusive concerning any of the points involved, but they do render it highly probable that there are good Mendelian characters in this class of animals. They are published with the hope of stimulating further enquiry along this line.

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U. S. DEPT. OF AGRICULTURE.

CURRENT NOTES ON METEOROLOGY.

VAGARIES OF LIGHTNING.

A PAPER in the *Quarterly Journal of the Royal Meteorological Society* for July, by Alfred Hands, deals with 'Some So-called Vagaries of Lightning Reproduced Experimentally.' Lightning is an electric charge, the author says, and should act in accordance with the laws that are known to govern dis-

charges. In the course of an extended investigation into the effects of lightning, Mr. Hands has come across many cases that have been called vagaries, but which on close inspection have proved to be extraordinary only in the erroneous way in which they were described. Had they been correctly reported, they would have appeared perfectly consistent with ideas previously held—in fact, they could have been foretold in every case if the conditions that led to those effects had been known before the events occurred.

Mr. Hands reproduced experimentally several so-called vagaries of lightning, showing by means of skeleton models the conditions under which they occurred, and by a single discharge producing effects which would be most perplexing if the arrangement of the hidden links in the alternative path of conduction were not known.

AFRICAN HUTS ON POLES TO ESCAPE MOSQUITOES.

THE placing of native dwellings on poles to elevate them above the ground during overflows in the rainy season has long been known as an interesting illustration of the influence of climate upon architecture. In an account of a journey 'From Mombasa to Khartum: through Uganda and down the Nile,' Sir Charles Eliot notes the use of platforms on poles ten or twelve feet high by some of the native tribes along the Bahr-el-Gebel. These platforms serve as places of repose when mosquitoes are very abundant, for it is found that the mosquitoes do not go far above the ground (*Scot. Geogr. Mag.*, 1906, 350).

PILOT CHARTS.

THE monthly pilot charts of the North Atlantic and North Pacific Oceans, issued by the Hydrographic Office of our Navy, are well known. Five years ago the British Meteorological Office began the publication of monthly North Atlantic pilot charts, and has now undertaken *Monthly Meteorological Charts of the Indian Ocean North of 15° South Latitude, and Red Sea*. The first number is for May, 1906. Two pilot charts are published by the Deutsche Seewarte, at Ham-

burg, one for the North Atlantic and Mediterranean, issued monthly, and one for the North Sea and Baltic, issued quarterly.

NOTES.

AN investigation into the Beaufort wind-scale and its relation to measured wind velocities has been made in England, and the results are published in an official report ('Report of the Director of the Meteorological Office upon an Inquiry into the Relation between the Estimates of Wind-Force according to Admiral Beaufort's Scale and the Velocities recorded by Anemometers belonging to the Office,' London, 1906).

R. DEC. WARD.

CEREBRAL LOCALIZATION OF MUSICAL TALENT.

DR. S. AUERBACH has published an interesting contribution¹ to the cerebral localization of the musical talent in a description of the surface morphology of the brain of Professor Naret Koning, late director of the opera in Frankfurt a. M. The report includes a comparative study of the brain of the celebrated composer Hans v. Bülow, for some time in the possession of Professor Edinger, and of brains of other eminent men, of known musical talent, previously described. The author finds in the considerable breadth and configuration of the (supra)marginal gyre, as well as the adjacent portion of the super-temporal gyre, an expression of the greater aptitude for the multitudinous associations in the auditory sphere which distinguished these persons from others less musical. The author goes on to show that the corresponding portions of the skull usually indicate this redundancy.

As has been urged frequently by cerebral morphologists in America, contributions of this kind make it highly desirable to secure for comparison more brains of persons of peculiar aptitudes in various lines of mental activity. Not only the brains, but also the

¹ *Archiv für Anatomie und Physiologie, Anatomische Abteilung*, 1906, pp. 197-230, Plates XII.-XVII.

skulls, head-casts and photographs taken in accordance with approved anthropometric methods are needed. The preservation of the brain is requisite not only for macroscopic study, but also for researches in the minute structure of the redundantly developed regions.

EDW. ANTHONY SPITZKA.

GRANTS FOR SCIENTIFIC RESEARCH BY THE BRITISH ASSOCIATION.

AT the recent York meeting of the British Association, as we learn from *Nature*, grants of money appropriated for scientific purposes by the general committee were:

Section A—Mathematical and Physical Science.

	£	s.	d.
Electrical Standards.....	50	0	0
Seismological Observations.....	40	0	0
Magnetic Observations at Falmouth...	40	0	0
Magnetic Survey of South Africa.....	25	7	6
Further Tabulation of Bessel Functions	15	0	0

Section B—Chemistry.

Wave-length Tables of Spectra.....	10	0	0
Study of Hydro-aromatic Substances...	30	0	0
Dynamic Isomerism	30	0	0

Section C—Geology.

Life Zones in British Carboniferous			
Rocks	12	7	7
Erratic Blocks	21	16	6
Fossiliferous Drift Deposits.....	25	19	0
Fauna and Flora of British Trias.....	10	0	0
Crystalline Rocks of Anglesey.....	7	18	11
Faunal Succession on the Carboniferous			
Limestone of S. W. England.....	15	0	0
Correlation and Age of South African			
Strata, etc.....	10	0	0
Investigation of the Speeton Beds at			
Knapton	10	0	0

Section D—Zoology.

Index Animalium.....	75	0	0
Table at the Zoological Station at			
Naples	100	0	0
Development of the Frog.....	5	14	6
Respiratory Phenomena and Color			
Changes in Animals.....	11	2	0
Experiments on the Development of the			
Sexual Cells	5	0	0

Section E—Geography.

Oscillations of the Land Level in the			
Mediterranean Basin	50	0	0