

The publication of such "eye-sores" can be so easily prevented by either author, editor or engraver that it should not be allowed to continue any longer. Of course in some cases, as in views of lakes and rivers, there may not be any distinct vertical or horizontal lines to guide the trimmer; but in such cases one may sometimes get his bearings by remembering that any point and its reflection in a body of still water are always in the same vertical line, except in the case of objects (such as birds) moving rapidly from the observer's right to left, or *vice versa*, and photographed with a focal-plane shutter traveling vertically.

ROLAND M. HARPER

UNIVERSITY, ALA.

ANOTHER SEX-LIMITED CHARACTER

TO THE EDITOR OF SCIENCE: From work done this spring on the inheritance of mammæ in swine, the writer has apparently discovered a new sex-limited character in the behavior of rudimentaries. These rudimentaries are the ones located low on the scrotum of the male, and well to the rear on the inside of the thigh of the female. The method of inheritance corresponds to the appearance of horns in Wood's crosses in sheep.

The males used by the writer both possessed rudimentaries on the scrotum and were heterozygous in nature if the interpretation is correct. Two ages of sows were used, gilts or sows just turned a year old, and sows that had just become two years of age. The results are depicted in the following table, the symbols being as follows: *R* equals factor for presence of rudimentary, *r* equals absence of same. *RR* equals rudimentaries in both sexes, *Rr* equals presence in male and absence in female, and *rr* equals absence in both sexes.

In the second table the deviation of the actual from the theoretical is wider than the writer would like, but is scarcely significant. The number of gilts are only seventeen and the average of pigs per gilt is less than with the sows. Both of these factors should complicate the results as to chance. Since there

is no appearance of rudimentaries where they are not expected the writer feels that the theory is justified in spite of the deviations.

SOWS MATED TO OLD BOAR (*Rr*)

Gametic Composition Sows	No. Sows		Boars		Sows	
			Ab-sent	Pres-ent	Ab-sent	Pres-ent
<i>RR</i>	5	Expectation	0	26	11	11
		Actual	0	26	14	9
<i>Rr</i>	9	Expectation	9	27	36	12
		Actual	11	25	34	14
<i>rr</i>	18	Expectation	46	46	84	0
		Actual	48	45	84	0

GILTS MATED TO YOUNG BOAR (*Rr*)

<i>RR</i>	4	Expectation	0	13	8	8
		Actual	0	13	13	4
<i>Rr</i>	5	Expectation	5	15	21	7
		Actual	7	13	18	10
<i>rr</i>	8	Expectation	19	19	23	0
		Actual	23	15	23	0

The gilts are from the sows listed in the first table and thus there are available three generations for study. The gametic composition assigned the gilts as a result of their behavior in breeding is confirmatory in every case of the composition assigned the sows.

The writer is not dogmatic in his interpretation and welcomes suggestions that may help reconcile the slight differences present.

EDWARD N. WENTWORTH

AMES, IOWA

SCIENTIFIC BOOKS

Phylogeny of the Echini with a Revision of Palæozoic Species. By ROBERT TRACY JACKSON. Memoirs of the Boston Society of Natural History, Vol. 7. Boston: Printed for the Society with aid from the Gurdon Saltonstall Fund, January, 1912. Quarto, 491 pages with 256 text-figures and 76 plates.

The discovery of the actual phylogeny of any group of animals involves not only the combined study of the morphology and development of those animals as they exist to-day, but also the more difficult and laborious study of their fossil remains. The true phylogenist