dent on its flat side than when they are incident on its edge. The maximum sound-wave pressure found by Altberg, for very intense stationary waves, was about .26 dyne. Since the pressure of a gas is proportional to the absolute temperature, $dT/T = dP/P$. From this it may be calculated that the increase of temperature indicated by a thin bolometer strip on which the waves exert a pressure of .26 dyne would be about .000075° at atmospheric pressure and a temperature of 17° C. or 290° absolute.

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RUDIMENTARY MAMMÆ IN SWINE A SEX-LIMITED CHARACTER[1]

The inheritance of the rudimentary mammæ found on the lower part of the scrotum of the boar and on the inside of the thighs to the rear of the inguinal pair in the sow, was reported as typically sex-limited by the writer in 1912 and 1913. Later, in 1914, due to the failure to discover a boar homozygous for the character, an attempt was made to classify the inheritance as sex-linked in nature. Certain more recent discoveries, due largely to a few selected matings, have cleared up the difficulties which in 1914 were believed to exist, and make the earlier interpretation more probable.

The case in point is as follows: A Duroc Jersey boar possessing the rudimentaries was mated to a grade black sow lacking them. A litter of nine pigs was farrowed, four of the boars having rudimentaries, and one lacking them, while three of the sows lacked rudimentaries and the fourth possessed them. Coupled with the evidence on the inheritance of this character published previously, this breeding performance indicates that both the Duroc Jersey boar and the grade black sow were heterozygous for this character.

One of the boars possessing rudimentaries from this litter was mated to the four sows of the litter with the following results:

[1] Paper No. 2 from the Laboratory of Animal Technology, Kansas Agricultural Experiment Station.

Record Number	Apparent Hereditary Constitution	Males		Females	
		With Rudimentaries	Without Rudimentaries	With Rudimentaries	Without Rudimentaries
Sow 26.....	RR	4	0	3	0
Sow 27.....	Rr	4	0	3	2
Sow 28.....	rr	3	0	0	2
Sow 29	rr	4	0	0	4

This breeding performance very definitely indicates that the boar was homozygous for the rudimentary mammæ. All of the boar pigs that he sired possessed the character, even though two of the sows were of a type not to transmit it at all. If he were heterozygous for the character, then at least part of the seven male pigs from sows 28 and 29 should have lacked the rudimentaries; the chances of their all having them being one out of 128. The discovery of a boar homozygous for the rudimentaries removes the principal stumbling block to the simple sex-limited theory.

Davenport and Arkell have developed a scheme which bridges the discrepancies between sex-limited and sex-linked inheritance, even when apparently homozygous animals exist. Since, however, the sex-limited explanation advanced by Wood seems to cover all the facts that are involved in this case, and since it is much simpler, the writer prefers thus to interpret these results.

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