

that I have caused to be engraven, the, at first sight, unattractive representations of pig-carcases on the present and following pages. The cuts are taken from the fourth Annual Report of the University of Wisconsin, Agricultural Experiment Station, and the feeding of the animals has been carried on under the superintendence of Professor Henry, Director of the Station.

From a litter of eight pigs, six were selected for the trial, 15 weeks after they were born. The pigs were cross-bred Jersey-Reds and Poland Chinas: not a bad selection, as the former breed has a tendency to grow muscle, and the latter, fat. Both lots of these had, up to the commencement of the experiment, been kept on the same food, viz: a mixture of shorts, corn-meal, skim-milk and butter-milk. At the beginning of the trial, lot A was given a ration consisting of one part of dried blood, six parts of shorts, and fourteen parts of sweet skim-milk—all by weight. Lot A received all the fine-

The digestible matter in the two lots of food stands as follows:

	Albuminoids.	Carbohydrates.
Total digestible matter—Lot A... 428 lbs.	833 lbs.	
" " " —Lot B... 153 "	1193 "	

Here, my readers will observe that Lot A got rid of 1261 pounds of food and Lot B of 1346 pounds, a difference of 85 pounds only, but the difference of the quality of the two rations is very great. I need not tell my readers that, speaking in general terms, carbohydrates produce fat, and albuminoids produce muscle or lean meat.

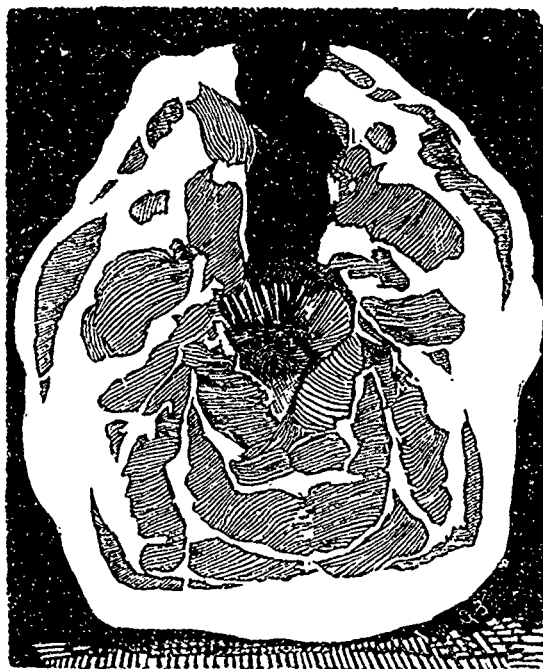
The hogs were slaughtered Nov. 8, 1886, and every precaution was used to preserve every particle of the blood, entrails, &c. Upon being taken to the block, when cold, each hog was laid on the block, the head was severed, the body was cut square across between the fifth and sixth ribs, and again at

PLATE I.



Fed for Fat.

Lot A, No. 1, Carbohydrate fed.



Fed for Lean.

Lot B, No. 1, Protein fed.

Plate I shows in cross section the proportional size of the muscles (lean meat) in the necks of hogs No. 1 of each lot.

NOTE.—The lean meat is striped black and white; the fat is shown in clean white. The cuts are made from the dressed hogs lying on their backs.

ground corn-meal the pigs could consume, and both lots had plenty of fresh water, and a small yard to run in for exercise. The experiment was continued for 136 days, and all the pigs did well upon the food. The following condensed form shows the amount of food consumed during the trial:—

LOT A, FED FOR LEAN.

	lbs.
Skim-milk.....	3302
Shorts.....	1415 1-7
Dried blood.....	235 6-7

LOT B, FED FOR FAT.

	lbs.
Corn-meal.....	1690

the loin. The places of separation were both photographed and painted by an artist.

THE ILLUSTRATIONS.

It will be seen that the illustrations afford the following lessons:

The albuminoid-fed hogs have more lean meat than the hogs whose food consisted chiefly of carbohydrates. In the loin-cut, the muscles of the former are almost twice as abundant as the muscles of the latter. The bones of Lot A were stronger than those of Lot B in the proportions of 5 to 3, nearly. (1)

(1) A very curious fact indeed, showing, I fancy, that the nitrogenous food of Lot A strengthened the bones by furnishing ampler supplies of gelatine.

A. R. J. F.