

belonging to neighboring farmers, is handled. The experiments tested the butter value of milk and cream from nine different sources on the college farm, for comparison with the average received from the patrons of the creamery. Thirty milkings, or portions of milkings, were taken from short-horn, Aberdeen-Angus, Hereford, Devon, Holstein, Ayrshire and Guernsey cows, as well as from a spayed common Canadian cow and short-horn grades—in all 13 cows, running on permanent pasture. The milk was set in inch test tubes and iced water at from 40° to 45° for 24 hours, so as to copy as nearly as possible the conditions of the creamery patrons. The average per cent of cream from all sources was only 11. The mean of the three beef breeds—short horn, Aberdeen-Angus and Hereford—was 12 per cent, while that from the two heavy milking breeds—Ayrshire and Holstein—was only 7½ per cent; from the two acknowledged butter breeds—Devons and Guernseys—the percentage was 12½, and from the grades 12 per cent, of cream. The separation of cream was very indistinct in the cases of Devons and Ayrshires. The highest per cent was a mean of 18.8 from the Guernsey, and the lowest 6½, from the Holstein.

The oil tester showed the following quantity of butter fat, namely, ounces per inch of the cream can, 16 being the standard for one pound of butter :

Durham	16½
A. A. Poll.....	17
Hereford	17
Devon	11
Holstein	7
Ayrshire	10½
Guernsey.....	17
Spayed grade.....	15½
Grades on permanent pasture.....	16½
Mean	14½

Taking into consideration the quantity of cream, in addition to its butter value, the following were the results :

Guernsey.....	30 per cent over standard.
Grades	14 " under "
Hereford	18 " " "
Durham	20 " " "
A. A. Poll.....	25 " " "
Ayrshire	65 " " "
Devon	70 " " "
Holstein	82 " " "

Accordingly, if the standard represents 3½ pounds of butter to 100 pounds of milk, the Guernsey yielded 4½ and the Holstein two thirds of a pound of butter per 100 pounds of milk.

DR. HOSKINS.

The Chicago Fat Stock Show.

It was mentioned last week that the two departments of the Chicago show which are not exactly covered by its title—the Horses and the Poultry—were much more numerous than in previous years, poultry especially so; and that of the main exhibition itself—fat cattle for the butcher—the leading feature was the decided victory, on the whole, of Short-Horns over other breeds. Short-Horn blood predominated considerably in the number of animals shown, it is true; but what is particularly remarkable is the number of high prizes won by a single exhibitor of high grades of that breed, Mr. D. M. Moninger of Galvin, Iowa, on two bullocks, Stevens and Glick, three years and two years old respectively, these

two animals winning every prize for which they both competed, beating all other breeds and grades, and Glick finally carrying off the grand sweepstakes as best beast in the show. Unbroken success like this, extending through so many rings, renders the management of the feeder a subject of much interest.

When visiting the show of 1882, at which also Mr. Moninger captured important prizes, he gave the writer a description of his system which was summarized in the *Country Gentleman* at the time as below :

" Mr. Moninger would turn his cattle right into his corn-fields and let them 'go it' at their own discretion, if he had sufficient fencing. Not having it, he feeds them corn whole, and this, together, with grass, is all they have had to eat until within the last two months, when they began receiving some rye and oats and a little oil meal. No shelter whatever was provided last winter."

At the same exhibition, the grand sweepstakes was taken by J. B. Gillett on an animal which had never been under a roof or received any feeding but grass, hay and whole corn in abundance. The time of victories for this treatment has passed—nothing quite like it seems now to prevail among those who take the great Chicago prizes. A system of stuffing has been gradually developed, the details of which are mostly kept strictly secret, and the contest has largely degenerated (if that is not too strong a word) into a competitive trial of the skill of the different feeders. It may be due as much to Mr. Moninger's good management as to the original merits of his steers, that he has been able so far to distance his competitors. Such being not improbably the case, we were glad to be informed that he still proceeds on a comparatively simple and natural plan, which we suppose results in profit; and does not adopt the full high pressure system which has sometimes won important premiums on animals that must have cost a good deal more than they would sell for. He has given up to some extent the open-air treatment, the animals shown by him having been stabled for a year back; and he doubtless feeds more oilmeal than in former years; but corn and oats are still the main staples, and the former is generally fed, as we understood him, either whole or else merely shelled.

The pure-bred Short-Horn which most distinguished himself, winning first in his class and the Short-Horn sweepstakes—"Prentice," owned by J. J. Hill, St. Paul, Minn.,—has been more elaborately treated, having doubtless been tempted with sundry condiments and sauces of which nothing could be learned. The manager said, however, that oats were the main dependence for grain—barley and bran being also used, but not much corn. A point strongly insisted on, is the giving something succulent regularly every day through the year—roots, cornfodder, and at night in summer, fresh grass. The animal is stabled by day in hot weather, and at night in winter.

The only important winner of whose feeding we could learn anything worth repeating is the 3-year Devon Morsel, property of J. W. Morse & Son, Vernon, Wis. Up to about the first of last May, he was fed chiefly on ground and shelled corn. At that time the owners began using a mixture composed of equal parts of corn meal and oats, with about one-third the weight of Blatchford's Royal Food added, and then cut hay to the weight of about one-third of all the previous ingredients combined. Of this mixture not quite half a bushel has been used per day. The animal has been "kept up" and stall-fed for the last two months.

The prizes for greatest average gain per day of the animal's life, including weight at birth, were awarded as below—the figure (pounds) telling the usual story of a steady falling off in gain as the animal grows older: