

such a sum as that! It is very clear they do not know how to grow mangels in the States, or else every farmer in New-England would have a field of them and soon swamp the market.

Weight of English wheat.—The quality of the '95 wheat is very fine. It weighs from 64 to 66 lbs. the imperial bushel—struck—; at the latter weight, it would take 110 American bushels to equal 100 bushels of English wheat.

Potatoes in the States are a large crop this year—'95—, as a very extensive planting was made in the spring, though the average yield per acre is but small, 84 bushels of 60 lbs., equal to 90 English bushels of 56 lbs. The average English crop is nearly 6 tons, equal to 224 bushels of 60 lbs. The return from Scotland is still larger; said to be between 8 and 9 tons 8½ tons are equal to all but 320 bushels of 60 lbs.

Price of wheat.—Is wheat really once more going to prove a paying crop to the English farmer? By the last week in October—'95—market reports, it seems that, at Reading and other country markets, best white wheats fetched as much as 32s a quarter of 8 bushels, though the average price over the whole of the country was only 25s. 7d. Well, in 1852, we bought our seed wheat for some eighty acres for 36s. a quarter: the finest white "Chidham" too; so there is only 6 pence a bushel between the present and the '52 prices. The crop of the year '53 fetched 10s. 6d. a bushel: a pretty difference from one October to another! It is devoutly to be wished that no such prices may occur again, for nothing but a war could bring it about.

The above reminds us of a speech of "Tom Webb," an uneducated Cambridge farmer; "He did not care much," he said, "about politics, or whether Sir Stratford Canning's management at Constantinople was all right. What he wanted to know was: can they get them stones out of the Danube." The said stones preventing the grain shipped from descending that river, and thereby kept up the price of English wheat.

Barley.—Finest English malting barley is only worth 38s. a quarter, while Moravian sells in Mark Lane for 44s. The finest sample of barley exhibited at the Brewers Exhibition, in October, came from Hungary! Good grinding barley is fetching 20s. a quarter=400 lbs., while U. S. maize only sells for 18s. per 480 lbs.; a mysterious difference to those who do not know that barley-meal is the prime food for making small pork for the West-End of London trade.

Suffolk-downs.—It is really wonderful how Lord Bristol and other breeders of the county have improved the breed of the Suffolk-downs. Forty odd years ago, when we first knew them, they were poor, loggy brutes, hard to keep within bounds, as their ancestors had been used to lead a free life on the barren heaths between Suffolk and Norfolk; and harder still to fatten, though, when fat, no mutton fetched a higher price on the London market. Like the Shropshire, the improvement now visible was made first by a cross of Southdown blood on the old stock, and turnip-feeding did the rest, till it is almost impossible to recognise in the modern Suffolk-down the sheep for

whom Crabbe, a Suffolk rector, sang, some eight or a hundred years ago: "They reared a common-pasture wild [and wide; Small, black-legg'd (1) sheep devour with [hunger keen The meagre herbage, fleshless, lean and [lean: Such o'er thy level turf, Newmarket, stray, And there, with other black-legs, find their [prey."

State of English agriculture.—It is curious to note, in the reports of the crops, &c. in the English farm-papers, all contributed by practical agriculturists, how very different the state of things is in various parts of the country. Norfolk men talk of "utter rain;" no rents can possibly be paid this year, as wheat is a poor crop, barley only middling, and as for oats, they do not grow much of that cereal. Cumberland and Westmoreland, on the contrary, seem pretty jolly, as does Lancashire. Why this difference, in districts only two-hundred miles, at most apart? The answer is simple and easy to find. Norfolk farmers have, as a rule, held large farms, and, while the good times lasted they lived high—some kept three and even four hunters—and in spite of the fall in rents of from 25 to 60 per cent, as a rule, and a remission, in some cases, of the whole rent, they have been sorely tried. Work, they never did; and if they did now, what would be the use of the work of one pair of hands on a farm of 1,200 or 1,500 acres? Until 1894, no tenant on the great Holkham estate—40,000 acres—of Lord Leicester had ever thrown up his farm; yet, in that year, eight of the tenants gave up at Michaelmas.

But, in Westmoreland, Lancashire, and Cumberland, a very different state of things exists. There we have a number of smaller farms, occupied by men who, like their fathers before them, do, with their families, almost all the work of the farm themselves. In fact, they behave as most of our farmers in this province do; they not only work hard, but they do not put their trust in grain alone. In Cumberland, out of 581,949 acres of cultivated land, only 98,543 were sown with grain. Cattle-breeding, sheep-breeding, and dairying are the chief lines followed. Rents have been lowered, but not more than 20% on the average. Indeed, after reading in the *Agricultural Gazette* the woeful jeremiads of the Southern farmer, it is quite a treat to turn to the reports of our Northern friends and see how industry and the exertion of common-sense has proved equal to the contest with the hated foreigner and his abominated goods. Contrast the following two reports (condensed), one from West Sussex, in the extreme South, the other from Westmoreland, in the extreme North:

"Sussex.—Autumn grass abundant, but will not help us much longer. Cattle and corn for cattle cheap enough, mangels good, and swedes not bad; but, then, what is the good of it all? At present prices, no rent can be paid. Rates, tithes, and labour require it all. Dairying and fattening stock are thought to be the only remedy, but our colonies are doing a good deal to depress the market in these directions. Our great commercial fleet, that we are all so proud of, is likely to make depression stay, and Ministers see they can do nothing. Markets are very flat, beef is dull, pork hardly saleable, &c., &c.; all in the same helpless tone.

(1) Suffolks are still as black as coals in the face and legs. The great racing stables are just within the borders of the county of Suffolk.

Now, turn to the North, and a very much pleasanter feeling pervades the report:

"There is plenty of food for cattle still—October 21st—; in fact, all pastures are still luxuriant. Capital second hay-crops. Our gardens are still bright and sweet, and French-beans and scarlet runners are abundant. Potatoes are a large crop, fine in size, and keep sound and good. At several sales in this district, sheep were present in large numbers and in splendid condition, so that they realised high prices. Butter about here is selling for 1s. 3d to 1s. 4d., rather a high price."

Lancashire reports about the same:

"Grass lands full of feed; cattle and sheep doing well upon them. Potatoes are a very heavy crop, and very little disease to be seen. The farms advertised to let in this district,—North Lonsdale—could be counted on the fingers of one hand, and still have some fingers left. On Thursday, fat sheep and fat calves met a brisk demand at good prices. Cows nearly due to calve sold well, up £24.10s., and store sheep had an all round improvement, both in demand and price."

What a difference between the tone of these reports! Our Southern farmers must look out, or else they will go to the wall. Already a large colony of Scotch dairymen has invaded Essex, and now an irruption from Ayrshire is threatening Kent. What will the end be?

Prices for mutton.—Small neat wether Down tegs—60 to 64 lbs. the carcase,—are worth, in S. E. England, 11d. a lb., i. e., from \$12.60 to \$13.80 a head. Canada sheep—64 to 68 lbs the carcase are only selling for 4s. a stone=\$8.00 to \$8.50 a head. In other words, the sheep the best meat-trade requires sells for 60% more than the sheep that is only fit for common trade, even with an additional half stone of meat thrown in. As we only send our best dairy goods to England, ought we not to try if it will pay to send a better style of sheep thither.

Cotton-seed cake and linseed cake are selling very nearly at equal rates at Liverpool. American thin linseed cake, of prime quality, is only worth £5 0s. a gross ton,=\$21.70 the 2,000 lb., and best decorticated cotton-seed cake is about the same price; both in bags. Undecorticated, the best form of cotton-seed cake for sheep, is worth only £3 12s. 6d.=about \$15 the short ton. It seems to us that there must be money in feed stuffs, at these prices. Cannot we import direct from the States as cheaply as the Liverpool men do?

Oats and butter.—Mr. Macfarlane, in an article which will be found at p. 000 of this number, strongly advises farmers not to sell their oats to grain-dealers but to their cows. Oats are worth less than 36 cents a bushel, and it costs something to take them to market. Now, a bushel of oats, according to Mr. Macfarlane, will make two pounds of butter, and as butter is worth 22½ cents a pound, it follows that, in that form, oats are worth 45 cents. And we must add the extra value of the dung of the cow while eating the oats, a rather difficult thing to get at. And, we suppose, the cost of carrying the grain to mill, and the miller's "Thirlage," (as the percentage deducted for grinding used to be called in Mr. Macfarlane's old country, at the West-

side of Loch Lomond; (1) *Glenfalloch*, was it not?) must be reckoned on the debit side of the oats account. So, upon the whole, we fancy the money value will come to about the same in both cases, but the advantage to the land in retaining the manurial constituents of the grain must be very great, provided the manure is carefully guarded from deterioration by some of the means recommended by our friend and frequent contributor Mr. Moore. Still, the consumption of the grain at home might raise its market price.

Linseed and butter.—Linseed is said to make butter soft and oily. Well, if it is given to cows in such monstrous quantities as we once saw recommend in a U. S. paper—7 lbs a day—, it would doubtless have that effect. Our practice was never to give more than 2 lbs a day to fattening beasts, and less to milch-cows, and the butter was always firm and good. Mixed with 3 lbs of corn-meal or barley-meal, 3 lbs. of pease-meal, and a bushel or so of roots, with oat-straw for "roughage," as the modern term seems to be, if the butter is not good, the fault must be with the maker. If cotton-seed cake is used, the addition of a pound of crushed linseed, steeped in lots of water, cold or hot will make it safe to give each cow more cotton-seed cake than without it. There is nothing like linseed for regulating the bowels and keeping the coat in good order. We remember well M. Lavallée, of Sorel, looking at our cows, in 1885, and protesting that they must be regularly carried every day, while neither curry comb, brush or wisp ever touched them: all the effect of the linseed.

Gluten-meal.—If as Prof. Woll says, in a letter to *Hoard's Dairymen*, "the Vermont Experiment station obtained 17% more butter-fat per diem per cow, when gluten meal was fed, than where bran and corn meal were used, cut hay and corn-silage being fed in addition in both cases; it follows that fat can be fed into milk. We have no experience in the use of this food, so dare not say anything about it, but if the account the Professor gives of it is, as of course it is, correct, it must be a very valuable commodity. The gluten (protein or albuminoid) and oil of the corn, without any admixture of the hulls or germ." The analysis, as compared with the feeding stuff is as follows:

ONE HUNDRED POUNDS CONTAIN POUNDS DIGESTIBLE MATTER.

	Protein	Carbohydrates	Fat	Total
	lbs.	lbs.	lbs.	lbs.
Barley.....	9.5	66.1	1.2	76.8
Wheat bran...	12.6	44.1	2.9	59.6
Gluten meal...	29.5	39.6	12.8	81.9
Gluten feed....	18.6	48.3	11.1	78.0

F. W. WOLL.
Wisconsin Experiment Station.

Vetches or tares.—Nothing is simpler than the cultivation of vetches or tares. In districts where the climate is mild

(1) Don't we remember the scene, and the family Piper, Dougal Macfarlane, the best of men! And the old pibroch of the clan, called in Gaelic, if we retain our memory, "Hoggil nam Bo," in *Sassenach*, "Well drive the bullocks," &c. Hence, the moon was called "Macfarlane's lantern," on account of the light she afforded the clan when engaged in this pretty sport. The bullocks were not their own property, we fancy; but Saxon beasts.—E. B.