The Formation and Improvement of Pasture Land.

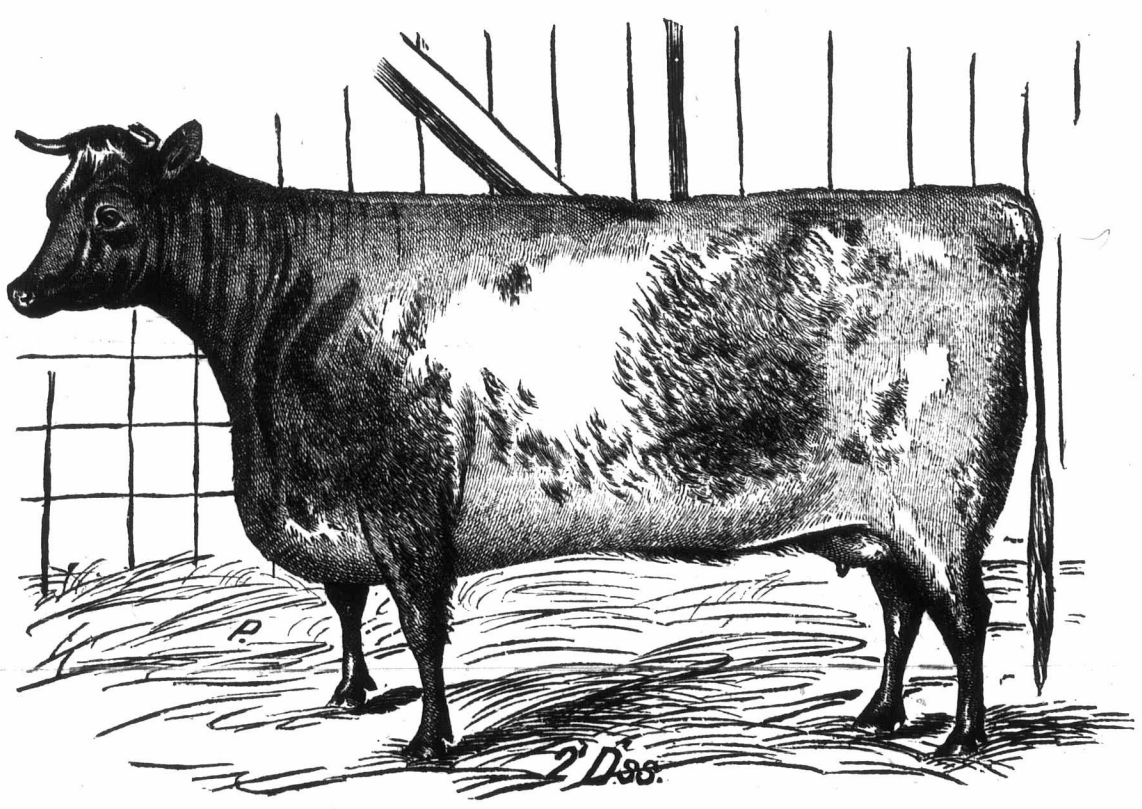
A survey of recent agricultural literature and of recent agricultural statistics, plainly shows that increased attention is being paid to the production of good permanent pasture. Wheat sells at a low price, and is always a precarious crop. Beef and mutton, on the other hand, continue to be in great demand. Foreign countries, where the climate is more congenial for the production of cereal crops than our own, successfully compete with us in the markets. Bread is cheap, but beef and mutton are comparatively dear. Such at least is the verdict of consumers in our large towns. Farmers may have grain hanging heavily on their hands, but they find no difficulty in disposing of a fat ox or sheep. The price of meat has been steadily increasing, whilst the price of flour has been almost stationary for many years—always, however, sufficiently low to make the growing of wheat unremunerative, except when a more than average crop is obtained. Such being the case, it is but natural that wheat growing is getting gradually supplanted by meat growing; for fatted kine are found more profitable than ears of corn.

The fact that much of our arable land is being converted into permanent pasture would, one would think, prove that farmers find that an extension of the area under grass is desirable. The cultivation of arable land is expensive—requiring a considerable amount of manual labor and the use of modern improved implements and machinery. The latter are, however, expensive to buy and to keep in repair; manual labour is also scarce and not worth the money asked for it in time of strikes at least. If we do return to a primitive kind of farming, it is because we find pastures pay better than fallows and cereal crops. Grazing flocks require but little labor to manage, and at present prices of meat they pay tolerably well for their keep. But though it be confessed that a return to pasture is opposed to the ideal standard of agriculture believed in by political economists and others, farmers who farm for profit cannot afford to play at a losing game for the sake of philosophic theorists.

A return to pasture some fifty years ago would mean an abandonment of our fields to their original state of comparative unproductiveness. Since, however, the introduction of artificial manures and the use of other fertilizers is better understood and more commonly applied to grass land, the formation of permanent pastures does not necessarily include a return to the primitive form of agriculture. The quality of our pastures can be improved by free use of manures, and be made to carry an extra quantity of stock. Whatever turn agriculture may take in the future, the present stage in its history must be productive of permanent good. Grass land was being neglected. All the manure made on the farm or purchased from the manufacturers was generally applied to crops of roots or of grain. The pastures were allowed to take care of themselves. Now, however, farmers are beginning to understand that in no way can manure be applied with more direct certainty of obtaining good results than by its application to grass land. Corn may be unduly forced. During a wet season a heavy manuring of the soil may result in a great deal of straw and but a small yield of good sound grain. Roots, also, may run to leaf at the expense of bulb. And even should the bulbs grow to a large size, they lack in quality from being forced by heavy dressings of manure. But inasmuch as abundance of blade, not of seed, is the prime object in the cultivation of grass land, any manure applied and which takes effect can only take effect in an increase of bulk in the direction most desirable to the farmer. The manuring of grass land has not been as popular as manuring land for corn because, although as we have pointed out, manure applied to pastures is more certain in its results than when applied to roots or corn, still the benefits derived from improving pastures are not quite so apparent to the farmer as the increase in bulk of his turnips or wheat. Cattle are turned into the pastures and shifted about from one field to another as a fresh bite is obtained, and there is thus a difficulty in assessing the true results. The farmer, of course, knows the land is improved, but he does not exactly know by how much. The increase, except in the case of hay, cannot be measured or weighed as his corn is after harvest. The improvement, however, is none the less real and must inevitably tell in the long run on his ledger accounts. It is satisfactory to know, therefore, that the proper management of grass land is at present engaging the general attention of agriculturists throughout the country.—*The Farmer* (England).

Good Seed.

In a recent communication to a London agricultural journal, Mr. J. J. Mechi says :—"How important is parental influence, and how unreasonable is the practice (still pursued by some) to sow inferior or unsaleable seed as a matter of economy. Admirable as our dressing machines now separate inferior seeds, still the more powerful blower which follows, soon exibits a selection of light or comparatively imperfect kernels or seeds. A good ordinary sample of dressed corn passed through a powerful blower comes out in very improved condition. I invariably blow all my seed corn, and by doing this with fen oats, often extract one-fourth as unfit for sowing. The same remark applies in degree to grass and other seeds. In the case of peas and beans, a riddle or screen gets rid of the 'scringelings,' How forcibly and clearly does Liebig, in his 'Natural Laws of Husbandry,' enforce the necessity for care in selection of seed : 'The development of a plant depends upon its first radication, and the choice of proper seeds is, therefore, of the highest importance for the future plant. Poor and sickly seeds will produce stunted plants, which, again, will yield seeds bearing, in a great measure, the same character. The horticulturist knows the natural relation which the condition of the seed bears to the production of a plant which is to possess all or only some properties of the species ; like the cattle breeder, who, with a view to propagation and increase of stock, selects only the healthiest and best formed animals for his purpose.'"



AIRDRIE DUCHESS 2ND—PROPERTY OF THE HON. M. H. COCHRANE, COMPTON, P. Q.

English Wheat.

Foremost as wheat is among the cereals of the temperate zone, it is not selected for uniformity of composition ; few grains, indeed, vary more according to season, soil and situation. English wheats, however, come nearest to an average standard of best bread-making qualities ; and if we do not turn out the highest-price flour, it is entirely owing to the want of skill or judgment on the part of the miller. The wheat-corn of southern climates, and during excessively warm periods of growth, preponderate in gluten and hardness of grain over those of colder countries and cold, wet seasons. Hence the hard wheats of Venezuela, Africa and Taganrog. Payen, who chiefly illustrates from these, declares that they yield over 20 per cent. of nitrogenous substance when chemically dry ; but this is an impossible ordinary condition, and leaves the real amount very uncertain. Whatever may be the *maximum* percentage of flesh-forming compounds in wheat from the sunnier clime, anything exceeding 13 per cent. must be taken from the entire grain. But when the kernel of hard corn shows as much as this it is altogether unfit for bread-making, unless a large quantity of poorer or softer wheat flour be mixed with it. We find the hard Italian wheat only suitable for making macaroni, vermicelli, and similar pastes; nevertheless, good, hard Russian corn, coarsely ground and dried, makes the best substitute for oatmeal in porridge, when that is found too heating to the blood of young children, as experienced Scotch physicans tell us is sometimes the case.—*The Sanitary Record.*

Choked Cattle.

The following recipe should be printed at least once every year, as it is a sure remedy : — Take of fine-cut chewing tobacco enough to make a ball as large as a hen's egg, dampen it with molasses so it adheres closely; elevate the animal's head, pull out the tongue and crowd the ball as far down the throat as possible. In fifteen minutes it will cause sickness and vomiting, relaxing the muscles so that the potato or whatever may be choking it will be thrown up.

Canadian Stock Sales.

The great Canadian stock sales take place this month. Capt. Chambers, of Spring Vale, East Oxford, well sell, on Tuesday, the 13th of June, 20 head of Shorthorns, together with Cotswold sheep, Berkshire pigs and carriage horses.

The Hon. M. H. Cochrane, Simon Beattie, and John Hope, will sell in Toronto, on Wednesday, the 14th, 50 head of Shorthorns.

The accompanying engraving represents one of the choicests animals to be disposed of. We give her pedigree herewith:

AIRDRIE DUCHESS 2nd.

Roan; calved December 7, 1871.

SIRE FOURTEENTH DUKE OF THORNDALE (28459).

dam Tenth Duchess of Airdrie by Royal Oxford (18774),
gr d Seventh Duchess of Airdrie by Clifton Duke (23580),
g gr d 2nd Duchess of Airdrie by 2nd Duke of Athol (11376),
g g gr d Duchess of Athol by 2nd Duke of Oxford (9046),
g g g gr d Duchess 54th by Second Cleveland Lad (3408),
g g g g gr d Duchess 49th by Short Tail (2621),
g g g g g gr d Duchess 30th by Second Hubback (1423),
g g g g g g gr d Duchess 20th by Second Earl (1511),
g g g g g g g gr d Duchess 8th by Marske (418),
g g g g g g g g gr d Duchess 2nd by Ketton 1st (709),
g g g g g g g g g gr d Duchess 1st by Comet (155),
g g g g g g g g g g gr d by Favourite (252),
g g g g g g g g g g g gr d by Daisy Bull (189),
g g g g g g g g g g g g gr d by Favourite (252),
g g g g g g g g g g g g g gr d by Hubback (319),
g g g g g g g g g g g g g g gr d by J. Brown's Red Bull (97.

There are many other animals in Mr. Cochrane's catalogue with pedigrees quite as good and per-