

**Poland-China and Duroc-Jersey Swine.**

In answer to a subscriber who made enquiries regarding the history of Poland-China and Duroc-Jersey swine, we will say that articles on these subjects have been prepared, but pressure of other matter will prevent their appearance until next issue.

**J. E. Smith's Clydesdales and Shorthorns.**

J. E. Smith's new stock barn at Brandon and a few of his magnificent horses and cattle are represented in the frontispiece of this issue. The barn is situated a short distance east of 1st street on Smithfield avenue, in the city of Brandon. The size is 50x112 feet; the basement of solid stone, 2 feet thick and 10½ feet high; the superstructure 16 feet clear. The interior is fitted with all the modern improvements and conveniences for ventilation, feeding, etc., and include a windmill for cutting fodder, crushing grain and pumping water. The object of the proprietor in establishing this barn is to have a central emporium for distributing the products of the Beresford Farm, know as the home of pure-bred Clydesdales and Shorthorns. It is also the intention to keep thoroughbred Herefords and Galloways. The two latter are now bred on separate farms owned by Mr. Smith, and quite remote from the Beresford Farm. Another feature is thoroughbred Large Improved Yorkshire pigs; orders for these are now being booked for spring delivery.

The Beresford Stock Farm was established in 1882, and is one of the largest in Canada. Its aim has always been to keep pace with the times and the demand, which has been steadily increasing with the development of the home trade and that of the West. The best sires have always been kept, both in horses and cattle. The breeding stock has always been selected with care from herds of renown; not only good individual animals, but descendants of good ancestors have always been purchased for the Beresford herd.

Mr. Smith being not only a breeder, but also an importer of both Clydesdales and cattle, an abundant supply of the several varieties of stock is for sale at all times, and parties can depend on getting what they want. Brandon being such a central point, the facilities for shipping are most excellent. During the past few years thousands of farmers from all parts of the province and territories have been attracted to Brandon to inspect the Experimental Farm, and we are quite satisfied that when paying their annual visit to Mr. Bedford they will now find it a pleasure to also visit this immense stock farm. Mr. Smith will be pleased to show parties over it, whether they wish to buy or not. There is conclusive evidence that farmers are trimming their sails to grow less frozen wheat and raise more cattle, of no ordinary class, judging from the number of young bulls leaving this establishment for different parts of Manitoba and the West, and Mr. Smith's efforts to place before the farmers stock equal to any in the Dominion is being heartily appreciated, but not more than it should be.

The following animals are represented in the cut:—

No. 1.—The young Clydesdale stallion, Sir Donald A. [1224], is a horse of very compact build, round body, short legs flat and well feathered, and has grand action. He strongly resembles his famous sire, Star o' Stewarton [588] (5376). Sir Donald A. was bred at the Beresford Farm, both sire and dam imported from Scotland, and his pedigree includes many of the most noted horses of Scotland, notably old Darnley (222). Sir Donald A. is now being fitted for Chicago Exposition, and his owner will be much disappointed if he does not prove himself worthy of his immortal grandsire, old Darnley, known as the hero of a hundred red tickets.

No. 2.—The Clydesdale mare Rosilee [541], bred by Peter Innes, of Newplace, Keith Hall, Aberdeenshire, Scotland; imported by Alex. Russell, of Unionville, Ont. Sired by the great Scotch stallion Rob Roy (713); dam Jess of Newplace (6292), by Daintie Davie (213). Rosilee is a broad set mare, with well sprung ribs and massive quarters, with a grand set of legs, and, as can be seen by her pedigree, is of good Clydesdale breeding. Rosilee is not yet seven years old, has three colts, all living and hearty, sired by Lord Randy (imp.) [1011] (5174), and is due to foal in June to the same sire.

No. 3.—Lady Beresford [1075] is rising four years old. She is one of the group awarded Bonanza Sandison's \$100 prize at the Brandon Summer Fair, 1892, for the best pedigreed mare with three of her progeny—Lady Beresford being the eldest filly, her dam being Lady Kenmuir, sired by Kenmuir Prince (1459), he by old Prince of Wales (673); dam of Ken-

muir Prince, Lily, by Lockfergus Champion (149); Lady Kenmuir's dam, Darling (Vol. X., S. C. B.), by Darnley (222). Lady Kenmuir is descended from the two most noted Clydesdale stallions in the world, Prince of Wales (673) and Darnley (222). Lady Beresford's sire is Bravery (imp.) (383), sire Strathleven (1539); dam Beauty (436), by Prince of Wales (673). From the above it is easily seen, by those versed in Clydesdale lore, that a much better pedigree could not be found in the annals of Clydesdale Stud Books than that possessed by Lady Beresford.

No. 4.—Windsor (56771), bred by S. Campbell, Kinellar, Aberdeenshire, Scotland, imported by J. & W. Russell, Richmond Hill, Ont., has proved himself one of the Shorthorn stars of Canada, not only as a show bull and prize-winner, but also as a stock bull. Windsor was awarded first prize at the London Provincial Show, also first at the Toronto Industrial as a two-year-old bull in 1889; first in Toronto as a three-year-old in 1890; also first in the class of three-year-old and over at Ottawa, and was shown in the herd awarded gold medal and diploma at Ottawa in 1890. Windsor is the sire of the young bull Prince Royal, which carried first prize at Toronto Industrial, 1891 and 1892, and first at Ottawa and Montreal, 1892. Windsor is a half-brother of the first and second prize bulls at Toronto in 1892. He is now king of the Beresford herd. Several tempting offers have been made and refused for Windsor, but Beresford needs the best, and at the present time Windsor is one of the things money won't buy.

No. 5.—Lady Irvine = 9516 = was bred by J. & W. B. Watt, of Salem, Ont.; sired by the veteran bull Barmpton Hero = 324 =, sire Royal Barmpton (imp.) = 217 = (45503), bred by A. Cruickshank, Sittyton, Aberdeenshire; dam Mimulus (imp.) = 343 =. Barmpton Hero has been acknowledged by all Shorthorn breeders one of the greatest bulls ever bred in America, not only as a show bull, but as a stock getter, many of the most prominent breeders in Canada to-day using the descendants of Barmpton Hero as their stock bulls. Lady Irvine has been a very successful prize winner as well as breeder. Her calves are always spoken for in advance. Her career in the show ring, together with that of her progeny, has done much to spread the fame of the Beresford Shorthorns.

No. 6.—Beresford Flower = 15199 =, got by Lord Lansdowne (imp.) = 2712 =; dam Lovely 20th = 12301 =, by Butterfly's Duke = 390 =, dam Lovely 19th (imp.) She is a true type of the Aberdeenshire Shorthorns, and a great breeder. She is a sister of Pauline, that carried so many prizes in Ontario, also in Manitoba after coming to Beresford. Beresford Flower is rich in royal ancestors, her sire being a Cruickshank Sittyton bull, and her dam of the noted Lovely family; her maternal grandsire Butterfly's Duke, by the 4th Duke of Clarence (33597), the \$13,000 bull, dam imported Butterfly Duchess—two of Bow Park's most successful show animals.

No. 7.—Matchless of Elmhurst 11th = 12451 =, bred at Elmhurst by W. J. Biggins; sire Royal Elmhurst; dam Matchless of Elmhurst 3rd = 3881 =, sire Baron Lonan 3rd, bred at Bow Park, Brantford, sired by the pure Booth bull, imported Royal Tudor (3511). Matchless of Elmhurst 11th is of one of the longest and most prominent Sittyton strains ever in Canada. Her stock has always proved a very profitable auxiliary in the Beresford herd.

No. 8.—Lady Greenway = 15205 =, by Lord Lansdowne (imp.) = 2712 =, dam Violet = 2004 =, by Barmpton Hero = 324 =. Lady Greenway, named in honor of Manitoba's Premier, is one that even he might be proud to possess. Sufficient to establish her reputation is the fact that the blood of the great Barmpton Hero flows through her veins.

Besides the Clydesdales illustrated Mr. Smith has twenty registered Clydesdales, and fifty brood mares, fillies and working horses—all high grade Clydes.

There are in all one hundred Shorthorns, all registered in the Dominion Herd Book; ten registered Galloways, the cows and the bull, Professor Troquain, imported from Scotland by the late Thos. McCrae, Guelph, Ont. The herd of Herefords comprises twenty-seven animals, principally of the celebrated Tushingham strain. The stock bull is Tushingham 5th, and several of the cows are the get of Tushingham 2nd, first prize wherever shown in Ontario in 1892, and the best bull any age in the Hereford class at Toronto, 1892.

A bad road is a tax, and a heavy one at that. Want to escape that tax? Join the crusade against bad roads.

**"The Robertson Combination for Ensilage."**

Ensilage has come to mean any kind of fodder which is cured and preserved in a succulent state for the feeding of domestic animals. The silo has no power to add any nutrient to the fodder which is put into it for preservation. Its contents may become more digestible and palatable by the changes which proceed slowly under the action of ferments, or they may become less pleasant and wholesome if fermentation goes too far. Fodder which is deficient in nutrients before it is put into a silo, will experience no regeneration there. Degeneration into offensive material is the only and constant tendency, and that can be arrested.

To prevent deterioration and decay is the function of the silo; and to that end it should be constructed to exclude the atmosphere. To do so requires the use of building material of adequate strength. The fastening of its parts, at the foundation and at the corners of the silo, should be secure. I have found one ply of sound one-inch lumber, tongued and grooved, nailed horizontally on the inside of studs two inches by ten inches, or two inches by twelve inches, to be sufficient.

Indian corn—the great sun-plant of this continent—is undoubtedly the most serviceable crop which has been used for ensilage; but although it be ever so well preserved as to succulence, odor, flavor and color, it is an incomplete food for cattle. With a marvellous proclivity for storing up starch, gum and sugar out of the elements of the air, the corn-plant becomes a veritable accumulator of sun-strength and energy. Its carbo-hydrates or "heat-producing parts" are largely in excess of its albuminoids or "flesh-forming parts." These latter are present in no mean quantities in fodder corn per acre; but, for a wholesome, economical, complete food, they are out of correct proportion to the other constituents.

A main function of intelligent men on earth seems to be, to put and keep things in their right relationships to each other, and therefore the intelligent farmer has been putting carbo-hydrates and albuminoids, in the rations for his cattle, in the right relationships and proportions to each other—even at the expense of his purse. That has been done commonly by adding ripened grain, such as oats, barley, wheat and pease, to the bulky-fodder part of rations, or by buying for that purpose oil-cake, cotton-seed meal, or some other feeding commodity which is rich in albuminoids.

For a few years I have been seeking to find and put into the silo, with Indian corn, some other plant or plants which would furnish the necessary quantity of albuminoids, in a form which would cost very much less than ripened cereals, or concentrated by-products. Clovers and pease have been tried with indifferent success, and the climbing or pole beans have been grown, with cornstalks for trellis, without appreciable advantage.

The Horse Bean or Small Field Bean (*Faba Vulgaris*, var. *Equina*) seems to meet the needs of the case. This plant grows with a stiff, erect stem of quadrangular shape. It attains here a height of from three to four feet; and it grows in England and Scotland to a height of from three to six feet. It bears pods from within six or eight inches from the base of the stalk to near its top. The ripened beans are of a greyish-brown color, and of an oblong, round shape about ¼ inch in long diameter and about ⅓ inch in short diameter.

With us the plants have carried ripened beans in the lower pods, while the topmost ones on the same stalks were hardly out of bloom. By growing the Horse Beans as a fodder crop, in rows 3 feet apart, with 3 or 4 plants per foot in each row, we obtained an average yield of 6 tons, 1,610 pounds per acre of green fodder. Representative samples of the crop were analyzed by Mr. Frank T. Shutt, chief chemist of the Dominion Experimental Farms, and from his analyses it is established that the Horse Beans contained 370 pounds of albuminoids and 94 pounds of fat per acre. They were preserved in a silo in a layer by themselves, and also in mixture with Indian corn plants. They were grown also in alternate rows with Indian corn, and, moreover, were grown in the same rows with Indian corn,—the beans and corn being mixed before they were put into the planter. I have not exact data for the yield of beans in the latter case, but I estimated (and I think correctly) that the yield of bean-fodder was at the rate of 4½ tons per acre, in addition to the Indian corn, and without causing any less yield of corn than where no beans were grown with it. It will suffice at present to say that the cattle relished the Indian corn and Horse Beans ensilage.

Although albuminoids and carbo-hydrates (in the form of starch, gum, sugar and fibre) may be