will be found that on applying tension to the

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us that on fair pasture the cows will give from four to five gallons a day of very rich milk. The Maple Hill Herd has now been established over six years, and contains a number of imported animals from the herds of such well-known breeders as R. H. Mason, Garret Taylor, and W. Bradfield, among them being a number of daughters and granddaughters of the famous royal winner Falstaff, purchased in England by G. Faber, of New York, who paid no less than \$1,000 for him there. Randolph is situated in the north-western part of Pennsylvania, about thirty miles from Erie, the nearest station being Meadville. Mr. Crouch's card will be found in another column, and we would advise any of our readers who are interested in these cattle to pay him a visit.

NITHSIDE FARM.

Between two and three miles from Paris, and almost on the banks of the river Nith, is the farm of Mr. E. Martin, well known among Berkshire breeders as an ardent admirer and a successful breeder of Berkshires. Owing to the heavy drafts made on his stock this last spring by his customers, at the time of our visit Mr. Martin's herd was somewhat smaller than usual, the boar at the head being Showman (598), a first prize pig at the Industrial, bred by J. G. Snell & Bro., and got by their famous Top Gallant. Among the sows we were particularly taken with Nithside Queen (1896), a grand, good, lengthy sow, with a capital middle, good hams, and a light fore end. Her sire was Nimble Dick, her dam being by imported Real Briton. Another excellent sow is Dinah (1321), a daughter of Showman. Besides his Berks Mr. Martin keeps a flock of pure-bred Southdowns, and also one of Shrops, and pure-bred Silver Grey Dorkings, his foundation stock of birds having been purchased from the yards of Messrs. J. W. Akers, of Paris, and Allan Bogue, London, the present cock bird being one purchased from the well-known fancier and judge, Mr. Jas. Main, of Milton. The Southdown lambs, sired by a ram of Mr. John Jackson's breeding, and the Shropshire lambs from Mr. Jno. Conworth's stock were looking very well, and we think anyone needing a lamb for stock purposes at a reasonable figure need not go any further to suit himself. Mr. Martin's advertising card will be found in our columns, and we would also draw our readers' attention to the fact that a portion of Nithside Farm is devoted to growing seed grain of the best varieties, special pains being taken to keep the land perfeetly clean, and the different varieties pure.

MESSRS, W. M. AND J. C. SMITH,

who rank among the largest live stock exhibitors in the province, own adjoining farms about one mile from the village of Fairfield, in one of the very best sections of Ontario. Messrs. Smith's specialties for many years have been Ayrshires, Merinos, and Poland China hogs, as well as numerous varieties of land and water fowl. Their bull, a Roynof Oxford (300), bred by Mr. Nicholl, of Plattsville begiell known in the show ring, having wer seend in '89 and '90 at Toronto and first and dipioma in 1890 at Hamilton, and second in 1891 at Ottawa; red and white in color. Rob Roy is rather larger than most Ayrshires, but very smooth and nice, with wonderfully heavy, lengthy quarters. In his present owner's hands he has proved valuable as a stock getter, some of his heifers giving promise of

found Empress, the winner of no less than six first places at provincial fairs, as well as many local prizes. Empress, like Rob Roy, shows more size than most Ayrshires, but combines with her size the characteristic wedge-shaped appearance, while her beautiful udder and large milk veins show her to be no mean performer at the pail. In Messrs. Smith's hands she has proved herself a wonderful producer, a calf of her's winning first place in the class for yearling bulls at Kingston in 1888. A very pretty heifer is Alma, a two-year-old half-sister to Empress. This heifer had just calved at the time of our visit, and a better show of milk we have never seen in a two-year-old. Hamilton Chief (875) is a very nice young bull, bred by D. Morton & Son, of Hamilton, and purchased by Messrs. Smith to use on females got by their present bull. Since our visit he has had placed to his credit a second prize at Toronto and also at Montreal; in both places in very strong rings. We might also mention that this year (1891), with nine head of Ayrshires, Messrs. Smith have won twenty-one prizes at Toronto, Montreal and Ottawa. Their flock of Merinos, which is one of the largest in Canada, has been equally successful in the show ring, the twenty-seven head exhibited at Toronto, Montreal and Ottawa having won over half the money given at these fairs, including first and third at Toronto on pens. The Poland China herd, which comprises representatives of several of the leading American herds, is too well known to need much notice, it being enough to say that with fourteen pigs Messrs. Smith won every first prize but one at Toronto and also at Montreal, while at Ottawa they took nine prizes against all large breed hogs. Messrs. Smith have now been in the show ring for some 25 years without missing a year, and this year their winnings at three shows aggregated nearly \$1,000.

Sound, Clean Wool.

BY D. M'CRAE.

The Canadian farmer, to get the best results from wool growing, must see to it that his wool is sound and clean. This is a point that is almost self-evident. At a meeting of the sheep breeders, held during the "Industrial Fair" at Toronto, a leading dealer in wool declared that Canadian wool was lacking in these two points, and that year by year it was, instead of improving, growing worse. We can grow good wool in Canada, and if it is not sound and clean it is not the fault of the climate so much as the fault of the grower. Soundness of staple is a very important point. For the worsted spinner it is an essential. He cannot possibly make good level varn with unsound wool. When you consider that in the process of manufacture each fibre of the wool is drawn till it is very much longer than when it came from the sheep (say to three times normal length), it will be evident that if there be a weak spot in the fibre, it will break at that place and cause imperfect yarn. For making worsted yarns wool must be sound and of a uniform strength. For carded yarns it is not so important, but no manufacturer can make good yarn from weak, unsound wool. Careful, regular feeding, and good, uniform care, will give good wool. Irregular feeding, careless attendants, allowing the sheep to be chilled, and overfeeding, or surfeit, will cause a stoppage of the wool growth, and a weak place in the wool will be the making grand cows. Among the cows we soon result. If the fleece be carefully examined it help to raise the standard of the Canadian clip.

fibres they will break just at this place. Such weol is useless for worsted, and not nearly as valuable as sound wool for carding purposes. In the past there has not been any large proportion of Canadian wool sent to market in this unsound condition, and when there was, few of the ordinary buyers knew enough of the trade to detect the imperfection. It was only when it came to be graded by the wool sorter that it was noticed. Such fleeces should then be thrown among the "rejects" and have the company of the "cotted" fleeces. A sheep giving a cotted fleece should be marked, and at once put in the lot for feeding off. When once a sheep has given a cotted fleece, in the majority of cases the next and all the succeeding ones will be of the same character. Sheep out of condition, or in ill health. will sometimes give brittle or "brashy" wool. The fibre has a harsh feel and breaks readily. This is very poor wool. A very small percentage only of this kind of wool has been marketed in Ontario, but a good deal of the wool from the Northwest has had this character, especially from those flocks with ranch blood as their basis. Sheep sent from Ontario to the Northwest, and their immediate descendants, have not this very objectionable feature. From this it will be seen that only sound, healthy sheep, will grow good, sound wool, and that any breed of sheep if carelessly attended are apt to produce inferior wool. The fleece should not only be sound, but it should be clean-we Canadians are very remiss in this particular. Much of the wool is taken to market in a very bad shape; clean wool is wool free from foreign substances, such as the many kinds of burrs grown on the average Ontario farm, bits of hay and straw, and other foreign matter. Grease and dirt are not as objectionable as are foreign substances; the grease and dirt can be readily washed out, but these other foreign substances require much more elaborate treatment, and all injure the wool more or less. Careless weeding is to blame for many of the burrs; roadside pasturing may account for a few more; anyway, our wool has a bad reputation in this respect. The small, hard burr is most easily removed; the very common burdock is, perhaps, the worst. Recently, by a country roadside a sheep was seen by the writer with a good deal more burr than wool visible each of these burrs when the wool comes to the sorters' table has to be removed by hand. The usual way is to clip out the burr, leaving as little wool with it as possible. These bits of wool and burr are then chemically treated to destroy the vegetable fibre, but in doing this the wool is always more or less injured. The remedy for this is evident; destroy the weeds before they go to seed; clean farming in this instance will help to give clean wool. But burrs are not the only trouble; bits of straw, chaff and hay-seeds are very common in our wool; they are difficult to remove. English wools are free from this, and the difference is caused by different treatment. Our climate causes us to feed our flocks under cover in the winter. Feeding from racks they get these bits of straw, etc., into the wool at this time, and once in they stay there. This is not so easily avoided, but some of the modern feeding racks have closed troughs for the hay above the sheep, and only a narrow feeding space at the bottom, which prevents much of the feed getting into the wool. Watch this point; see that as far as possible the wool is kept free from these impurities, and in so doing you will