gritty and rested upon a porous sub-soil it would be different, but in our case it was the deposit washed out of purely clay soils, and rested upon what in

winter is a damp sub soil.

If any of the readers of the JOURNAL have their orchards planted in such a soil and are wondering why they do not flourish better, they need not look farther for the reason. They will find the trees dark in the color of the bark and mossy, and when a limb is broken it will be found dark in the heart. The fruitage of such trees will never be found vigorous, and they themselves will present that unthritty appearance which does not fail to cast a shadow over the orchardist's heart.

This mistake we try to look upon in a charitable light, yet we confess it is not altogether easy to defend. In those days Canadian farm literature on these subjects was less aburdant than now. We had no Agri cultural College then, nor had we any farmers' insti-tutes. While it may have been pardonable in a young rustic in those dark days, before there was much of a shaking amongst the dry bones of old time practice, it would not be so now.

If a student of the Ontario Agricultural College were to commit such a blunder, he would deserve imprisonment. If a farmer who at-tends a farmers' institute, or has the opportunity of attending one, should do so, he should be ostracised; and so of the reader of an agricultural paper. And yet we find thousands of farmers who tell us book farming is of little or no use.

One article such as this we have just penned would, twenty years ago, have saved us just enough to pay for an agricultural paper for five hundred years.

Jottings.

Acme Pulverizing Harrow. - A prominent practical agricultural writer says of this implement: "Its various "qualities fit is for easy, rapid and efficient preparation of land
and in cheaply working the broad fields of a large farm into
as fine a condition as a garden." See adv't on page 426.

Permanent Exhibition of Manufactures.-A permanent exhibition of manufactures is in process of arrangement in Toronto The object is to afford facilities to manufac turers to have their wares open to inspection at some commer-cial centre all the year round. The conception is a grand one. A more extended notice will be given.

Advertising in the Journal. - " I find your Jour-NAL a valuable medium for advertising, as I have received a large number of enquiries from all parts of the Dominion, and all refer to my card in your Joe RNAL. The demand has been greater than what I could supply."—W. Whitelaw, Guelph.

Turpentine. - Its uses are very various on the farm, and any farmer who has young pine on his land can easily obtain it in large quantities. Bore a hole in the trees in the month of at it large quantities. Bore a note in the trees in the month of August and it will exude freely, whence it can be easily gathered. Any sired auger wil answer, but it is better to be somewhat large, to facilitate gathering. Our attention was called to this matter while walking through a pine bush on Maple Grove Farm, belonging to Mr. Vm. Robinson, near Stayner, and we note it for the benefit of our readers, who may not have known this method of obtaining it.

Correction. EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL SIR, Allow me to correct your report on sweepstakes ewe at the Ontario Fat Stock Show, held at on sweepstakes ewe at the Ontario rat Slock Show, held at Guelph, 8th and 9th December last. You give her breed as Cotswold, which is not the case, she is of the Lincoln breed, and only two years old, and weighs, to-day, 357 lbs. Was ao lbs. heavier than any ewe or wether. At the fat slock show, she obtained the first in her class, and first in sweepstakes for best ewe of any age or breed, competing against imported Cotswolds, imported Schröpshires, imported Southdowns and several other breeds raised in Canada.—Ww Walker, Ilderton, Ont.

Dairy Inventions. - Dr. De Laval, born May 9, 1845, in Orsa Parish, Dalcarlia, Sweden, stands at the head of inventors of dairy implements at the present time. He has inventors of dairy implements at the present time. He has recently invented two different kinds of hand machines for use in the dairies of ordinary farmers. One of these making a soo revolutions in a minute, is said to be easily turned by a woman and separates 260 lbs of cream per nour, costing about \$250, delivered in this country. The other, with the same speed of cylinder, separates about 400 lbs per hour, but is more costly than the former. The Lactocrite, another of his recent inventions for testing the quality of milk, simply, accurately and readily, has met with a good deal of favor where it has been tried. Mr. De Laval still buses himself with inventions in the line of dairy improvement. line of dairy improvement.

Ontario Creamery Association.—The first an sual meeting of this association, will be held in the Temperance Hall, Toronto, on Thursday and Friday February 24 and 25. The following are some of the papers that will be read and discussed. How best to secure the patronage of the farmers, to the creamery, etc., by M. Moyer The proper handling of

the milk on the farm, by Valancey E. Fuller. Centrifugal system of butter making and winter and summer dairying compared, by John Sprague. The future of the foreign markets for Canadian butter, by Prof. J. W. Robertson. Best mode of cooling milk for raising cream, by Geo. Browning. The points of a dairy cow and how to feed, by D. Derbyshire. There will also be papers by American experts. Those who contemplate starting creamerics, or cestre information relating to butter dairying by way of lectures instruction, etc., may secure the services of such experienced men as John Sprague, Belleville; D. Derbyshire, Brockville; M. Moyer, Georgetown, and Geo. Browning, Walkerton.

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Forthcoming Public Sales.

Forthcoming Public Sales.

The Wyton Stock Breeders Association offer 12 Holstein Freisian bulls and some cows and heifers by auction. Sale in London, Ont. 31st March. 1887. More particulars next issue See advt on another page.

A Jeffrey, 130 Bloor street, Toronto, having sold his farm, offers by auction his entire stock of Jersey cittle, Southdown sheep, Berkshire plgs and Clydesdales, along with all farming implements, etc. See advt on another page for particulars. The Jersey were successful in the show rings of 1886 in 10-ronto, Guelph and Hamilton. The sheep were imported by the well known firm of E. & A. Stanford; the Berkshires, of the Snell stock. The Clydesdales are Canadian bred, with 3 and 4 crosses. This sale should be well attended, as we think it a good opportunity for those desirous of purchasing choice stock. John D. Howden, of C.-lumbus, Ont., having rented his farm, offers for sale, 13th March, 1887, the whole of his stock, compruing 25 pure bred Shotthorn cows and heifers, 5 pure-bred bulls, 30 high standard grades, 12 Clydesdale mares and fillies, 1 stallon, 4 Shetland ponies, 30 Cotswold ewes and a number carriage mares and fillies. See adv't on page 421 to take place 3d of March, 1887 when he will offer by auction 24 Shorthorn cattle, 20 pure bred Cotswold sheep, and six heavy draft geldings and mares.

On 15th March, 1887, Dugald McPherson will sell by auction 28 high grade cows, heifers and steers, 4 draft colts, 23 well-bred long wool ewes, ewe lambs, Berkshire pigs, etc. See advertisement in this issue.

Iames Gardhouse & Son offer some fine young Shorthorn bulls by auction on 23rd February. Their adv't appears on p. 420 of this issue.

Auction sale of Thos. Nicholson & Son takes place on 8th of

March, 1887, when 25 head of choice Shorthorn cattle are of-fered to the highest bidder. Their stock bull Prince Albert was sold between the time of their sending adv't to us and the isau-ing of the Journal for January. See adv't John B. Conboy, Belfountain, Ont., has an auction sale, and March, 1887. See adv't, page 420.

Stock Notes.

Horsos.

Messrs. W. H. & C. H. McNish, of Lyn, Ont., have purchased a pair of Clyde fillies. One from John Davidson, Balsam, and the other from Mr. Ballsome, of the same place.

The illustrated catalogue of Galbraith Brothers' Clydesdalo and English Shire horses to hand. It is a handsome work of some 81 pages, and is profusely illustrated with horses from their own stud. In the next issue we shall try and find room for a breef sketch of this grand stud in our notes column. It is owned by Galbraith Brots, and is located at Janesville, Wisconstin, U.S. A. The catalogue comprises no less than ris head of Clyde and Shire horses and mares and 50 Shetland ponies. A list of six pages is appended with names of horses imported since 1831, of which fully two-thirds have been prize winners, either in Europe ar America. (See advertisement.)

Mr. Wm Rennie, seedsman, Toronto, reports the following sales of imported Clydesdale horses from his farm in Markham: "To Wm Mulock, M. P., Newmarket, Ont, Viola, Galed 1st May, 1884; sire, Springhill Hornley (1249); dam, Lumloch Bell (2681); sire of dam, Lucks All (510). Also sold to Mr. M., Bella, foaled 1884; sire, Sunbeam (1834); dam, Nancy; sire of dam, Lond Clyde (477). To Chas. Nelson, Madison Wis, U. S., Wattie, vol ix, foaled 25th May, 1885; sire, Maclean (2901); dam, Bello f. Ascog (83.), sire of dam, Surprise (845). Sold to Henry King, Priceville, Ont., Dandy Boy, vol. ix, foaled May 1884; sire, Harold (254); dam, Darling (2837); sire of dam, Old Times (579). He adds, "The balance of myimported Clydesdales (eleven in number), are doing nicely."

Shorthorns.

Messrs. W. & C. W. Carroll, Norwich, Ont., are the owners of two Shorthorn cows in calf and a bull, all registered in the new D. S. H. B.

We understand the Shorthorn bull, Sir Edward, owned by Mr. John Johnson, Port Hawkesbury, N. S., is doing well. His calves are of a high order.

Mr Jas. S. Smith, Maple Lodge, Ont., reports: "Ourstock are doing well; have a lot of fine young calves. We have four young bulls on hand yet for sale. Good ones."

Mr F. W. Stone, Mereton Lodge, Guelph, has just sold to Mr. James Cowan, west end, of the same place, the finely bred Bates bull, Baron Craggs 6th, to head his herd. He is a very promising animal.

Mr. James Carswell, of Renfrew, President of the Agricul-tural Society of South Renfrew, has a nice herd of 7 head of Shorthorn cows, and quite a number of young ones. They are grounded on stock from the "Willow Lodge" herd of J. C.

Mr W J. Biggins, Clinton. Ont., writes: "The Messrs. J. & W B. Watt, Salem, Ont., have purchased from me, Matchless of Elmhurst 3d and Matchless of Elmhurst 3d, is from the same cow as Matchless of Kinellar 2d, which Mr Watt purchased from me with some other Matchlesses 6 years ago, and which was one of the most successful prize winners in Canada."

Mr Joseph Magill, Janetville, Ont, has sold one bull and three heifers (Shorthorns), to Mr. John McHugh, Cresco, Iowa. They were all sired by Mr. Magill's imported bull, Prince Bishop, bought from Mr. Jas. I. Davidson, Balcam, Ont., and sired by Mr. A. Cruikshank's famous bull, Dumblane (47792). In 1886 these calves won 1st and 2d at Bethany; 1st and 2d at Peteboro, and two seconds at Lindsay.

Mr Peter Toles, Mr. Brydges, has sold to Philip Hansford, Strathroy, Ont, the Shorthorn bull calf, Lord Lorne, sired by Lord Chamberlain, and from the dam, Lady Lorne, which is a noted milker. Mr. Toles writes the imp. bull Invincible, bought from John Miller & Sons, Brougham, is proving himself a grand bull, and a sure and impressive sire. He is out of the dam, Jessamme 3d, and by Mr. Cruikshank's famous bull Vermont (27101).

Mr. Heber Rawlings, of Ravenswood, Ont., has just purchased from Mr Arthur Johnston, of Greenwood, Ont., the young bull Minister Eclipse, to place at the head of his Shorthorn herd, which numbers 21 head, of which 13 are females, and all are netered in the new Dominion herd book. Mr. R. has 8 young bulls, sired by Clarence—2400—bred at Bow Park. The cow Lady Stanley has a very fine pair of twins (bulls), and another of the herd, Queen of the Fashions, has produced twins, also a bull calf and a heifer. All are doing well.

Mr David Milne, Ethel, Ont., began breeding Shorthorns in 1882 with two heifers, purchased from Mr. Henry Reed, of Glanford, Ont; and in 1882 1, he purchased from J. & W. Watt, Salem, the famous young bull, Lord Lovell [10164]; also the two cows, Maid of Avon and Lady Jane, and about a year ago he purchased five head from the herds of John Miller & Sons, Brougham, Ont., and Arthur Johnston and David Birrel, of Greenwood, Ont. The herd, after selling 12 head, now numbers 31 head, with seven cows yet to come in, among which is four good young bulls and two imp. yearling bulls. Stock done well this winter. this winter.

Mr. J. E. Brethour, Burford, Ont., has lately purchased a pure white steer call, bred from the Messrs. Green Bros. Earl of Mar, for feeding purposes. The whites, so unpopular in the United States, furnish more prize winning feeders in proportion to their numbers than any other class of Shorthorns, and is it not feeding qualities that are most sought in breeding them? Mr. B. informs us that his stock, this winter, are doing very well, and that the demand for pure-breds is very good indeed.