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Agriculture.

We solicit correspondence from our friends throughout the Province, on all matters relative to country life. The business of the Farm in all its various branches will receive particular attention from us. We wish to enlist among our contributors those who desire to advance and improve the condition of the farmer and elevate and improve his profession. There are many practical farmers who are well able to impart information in the work they are engaged in, and their experience would benefit others; we intend to make the AGRICULTURIST a medium through which such experience may be made useful. The farmer feels the keen competition of the present day as much as the business man, and he requires all the advantages to be derived from good management, the most improved mode of doing his work, the best labor saving implements, the stock most suitable for his purpose and such kindred subjects. To give him this information and assistance will be the aim and object of the AGRICULTURIST, and we trust we will have the assistance and support of all who wish our Province to take the position it is so well entitled to, both by its natural capabilities and the character of its people. All communications must be accompanied with the name of the writer, not necessarily for publication, but as a guarantee of good faith. We do not undertake to return rejected contributions.

CANADIAN CATTLE TRADE WITH ENGLAND.

During the past year there has been a great deal of agitation in Britain in regard to the cattle trade, the farmers demanding protection from disease, the introduction of which has caused them much loss, the disease came with the cattle from the continent and no doubt there was much cause for complaint. At last a Royal Commission was appointed to make enquiry and report. A vast amount of evidence was taken and each party did their best to impress the Commission with their views. The British farmers asked that foreign cattle be excluded, or so many restrictions placed on the trade that it almost amounted to that. After a full and patient enquiry the Commission reported recommending certain restrictions and that all cattle imported from abroad be slaughtered at the port of debarkation. The Government introduced a bill into the House of Lords containing these provisions—and as it placed Canada on the same footing as foreign countries, it was looked upon as a death blow to the rapidly growing trade in live stock between the Dominion and the Mother Country. So serious was it considered that the Dominion Government at once took action in the matter and by telegraph remonstrated with the Home Government against the threatened injustice to the Dominion. Sir John Rose was also asked to take the matter in hand for the Dominion, which he did, much to its advantage. The bill was referred to a select committee and has been again under consideration of the House of Lords. There is no doubt now but that the Dominion will be exempt from the operation of the bill. The following particulars we take from the Toronto Globe:

Sir John Rose has taken great interest in this most important question for Canadian farmers, and for the interests of the Dominion generally, and has made himself fully acquainted with every detail bearing upon the question. His influence has been most usefully exerted, and if Canadian cattle are admitted as proposed, to a great extent this result will be due to Sir John Rose's efforts. Sir John Rose gave evidence at great length, in which he pointed out the encouragement which Canada had for many years systematically given to raising stock of the best character, that she had now become a great stock-raising country, and was much interested in suppressing cattle disease as Great Britain, extensive powers having been given by Parliament to the Government to that end, which powers had been very vigorously enforced; that there was no instance of disease in Canada, and this assertion he supported by a lengthy and minute reference to the evidence of witnesses examined last session, as well as recent communications to the same effect from Canada; that the trade in live stock was becoming a rapidly increasing one; that Canada was subject to heavy duties in sending stock and agricultural products to the United States markets; and that in the present depressed state both of shipping and agricultural interests it would be a great injustice inflicted on Canada, and without any reason whatever, if compulsory slaughter at the port of debarkation was insisted upon, as that would unquestionably stop the trade. He pointed out the distinction between the case of Canada and European countries which sent foreign cattle to Great Britain. He argued that there was

no more reason for insisting on the slaughter of cattle at Liverpool than on cattle sent from the Isle of Wight, to Portsmouth or any other town in England. He also dwelt on the restrictions proposed on the importation of stock or breeding cattle, arguing that the proposed provision should be reversed by making free importation the rule, and the power to impose the restrictions the exception only, and showed that no owner of valuable animals would risk sending them to Great Britain under such conditions. The evidence went over all the different branches of the case exhaustively, but as reporters are not allowed to take notes it is impossible to report it at length until the proceedings are printed.

Mr. John Dyke, the able and energetic agent of the Dominion Government at the port of Liverpool, was the next witness examined. Mr. Dyke has for several years past exerted himself for the advance of the great trade in dead meat and cattle between Canada and the Mother Country, and he had been carefully examined by the Select Committee on the matter. Mr. Dyke stated that he had devoted a great deal of attention to the initiation of a trade in live stock and dead meat between Canada and England. He made arrangements for the transport, receipt and disposal of the first large shipment of fresh meat sent from the American continent, which arrived in Liverpool in February, 1874, and he had carefully examined the various systems of refrigeration and modes of transport of live cattle since the commencement of the trade. No important improvement in the system of refrigeration had to his knowledge been introduced during the last two years, and he did not think it probable that the dead meat trade would entirely supersede that of live cattle from Canada in the summer months. In the summer of last year the shipments of dead meat decreased from 7,266,200 lbs. in May to 3,623,480 lbs. in June, 3,121,015 lbs. in July, 1,192,421 lbs. in August, September showed a revival, as 3,263,919 lbs. were exported, and in these months the shipments of Canadian live stock assumed the most important dimensions. The principal objections to an extension of the live stock trade were risk in transit and forced sale upon arrival in England. There were no warehouses fitted up with refrigerators in Liverpool for the storage of dead meat upon arrival from America. The various systems of refrigerators are patented and are controlled by monopolists, and it is a fact that the whole of the dead meat trade is in the hands of a few men, resulting disadvantageously to the Canadian producers and the British consumers. But it was not probable that such monopolies would be extended to the shipment of live cattle. The numbers of live stock shipped from Montreal in 1873, 25,038 cattle and 319,413 sheep were exported, and these numbers were increasing. In 1874 there were 39,623 cattle and 252,081 sheep, and these cattle are subject to a duty of twenty per cent. Nothing approaching an epidemic of any kind has ever attacked Canadian herds. Mr. Dyke thought that if disease did present itself the winter months, during which the cattle are housed and no contact takes place with the cattle of other farms, are sufficient quarantine to stamp out any infectious disease that might be introduced from abroad. On behalf of the Dominion Government he had endeavored to divert this trade to Great Britain to avoid this import and to secure more lucrative prices for surplus Canadian cattle. The Canadian farmer would not be able to meet the demands of this new trade by improving the breed of their herds and "steering" bill calves instead of slaughtering them as formerly, who these and butchers are housed and no contact takes place with the cattle of other farms, are sufficient quarantine to stamp out any infectious disease that might be introduced from abroad. On behalf of the Dominion Government he had endeavored to divert this trade to Great Britain to avoid this import and to secure more lucrative prices for surplus Canadian cattle. The Canadian farmer would not be able to meet the demands of this new trade by improving the breed of their herds and "steering" bill calves instead of slaughtering them as formerly, who these and butchers are housed and no contact takes place with the cattle of other farms, are sufficient quarantine to stamp out any infectious disease that might be introduced from abroad.

EAST LOTHIAN FARMERS ON POTATO CULTIVATION.

In proceeding to discuss the subject, he (Mr. Robertson), hoped members would consider what kinds and quantities of manure were best, and at what time they should be applied; also what varieties of potato were most advantageous to cultivate. It was his opinion that they would require to be particular regarding the quality of their potatoes, otherwise they could not keep their place in the London market with the present importations. It was only by growing the best quality that they could hold their own. This year they had not nearly got in London the prices they had expected with such a limited proportion of the home crop sound and marketable, and they had a very bad potato year. Indeed, he was convinced that if they had many more such years of disease as last, potato cultivation in the county would soon be ranked among the things that were—(laughter).

Mr. Guild, North Berwick Abbey, held that there could hardly be two opinions on the question of ploughing early and getting the land subjected to frost for potatoes. He maintained that the land could not be two times for potatoes any more than for turnips. Some difference of opinion existed regarding the comparative advantages of autumn dunging on the stable, and spring dunging in the drill for potatoes. He favored autumn manuring, which was a great saving of labor, particularly on the smaller farms. He believed they might get a bulkier crop from dunging in the drill in spring and having the manure near the sets, but he questioned whether the quality of the crop would be so good as it was after dunging on the stable in autumn. He had read with surprise in the North British Agriculturist of extraordinary manuring applied to the potato crops of the western district of Mid Lothian. He should never think of applying such extraordinary doses of dung with artificial over and above. He had found that if he put on between 30 and 40 tons of good farmyard dung on the stable for his potato crop, there was no necessity for adding light or artificial manures. The potato being essentially a plant, he disappeared of planting deep in the soil. If they deposited the plant at a greater depth than from 3 to 2 1/2 inches, it required longer to come up and was further away from the sun's heat. They could not, in his opinion, bestow too much horse labour on the potato. By this he meant that before the plants came through they should harrow the drills, re-form them, and harrow again. They would find that to be a great saving of hand labour and of expense. Some people were in the habit of top-dressing their potatoes with artificial manures. He did not approve of that either, unless the plants were looking sickly. Several growers made the drills only 25 or 26 inches wide. He formed his drills 29 inches apart. This enabled him to widen the plough when putting the soil to the potatoes, which had the effect of leaving the apex of the drill narrower and more likely to run rain-water off the drill. Whether this had anything to do with the circumstance or not, he observed that his drills were sharper on the top last year than those of his neighbors, with less disease than there was on several farms around him. He agreed with

the Chairman that they must grow the best quality of potatoes to hold their own with the foreigner in the southern markets. A potato merchant told him the other day that foreign growers were introducing the victoria and other favorite varieties of seed; and with soil and climate as good as in East Lothian, it was not unlikely that this meant a rather blue look-out for Haddingtonshire. Still there was no falling off as yet in their acreage under potatoes, and he sincerely hoped they would this year have a better crop than last—(applause). Mr. Elder, Beresford, said one great mistake made in East Lothian was the planting of potatoes on some of their white clays, which were altogether unsuited for such a crop. Even on the land considered most suitable, he had observed that the crops were not so good now as they used to be. He attributed that to the fact that, in his opinion, the land was becoming potato-sick. Twenty-five years ago, on their best land, potatoes were considerably better than now. As the growers gradually found symptoms of diminution in the yield they applied increased quantities of stimulative manures, which he believed had also the effect of stimulating disease—(laughter). Last year he dressed about one-half of his potato crop at the time of "bulking up" with those light manures—the other half got nothing at that time, and he found that the disease was considerably more virulent in the top-dressed portion than in the other. He did not believe they could prevent disease, but they might materially modify its effects by planting potatoes in land after lea which had been in pasture; and by running their drills east and west so that the dangerous storms and fogs which they generally experienced from the east would drive along the drill instead of broadside. When the rain beat on the broadside of the drill it was more apt to sink to the potatoes than when the tempest swept along the drill. Mr. Durie advocated dunging on the stubble, not so much that it would produce a heavier crop, but because it was generally attended with less disease than dunging on the drill. Even though there were plenty of time for dunging on the drill, he should prefer autumn manuring. Like Mr. Guild, he had been astonished to read of the monster manuring in Mid Lothian. One thing he wondered at, was where they got such quantities of dung—(laughter). If they applied as much in East Lothian, they would have little but "shaws." He did not agree with Mr. Elder as to the direction of the drill, but preferred to run his drills as nearly as possible north and south, enabling both sides to catch the sun during the day. Crows he found more mischievous when the potatoes were beginning to "root" than when they were newly through the ground. He considered that there was no better preparation for the potato crop than to pasture their land for a year or two. On most farms, if they did not long grow potatoes successfully and also maintain the condition of their land, he generally cut the bigger potato sets, and planted the smaller ones whole. Mr. HARPER, Sandwold—What sort of sets do you use, Mr. Guild? Mr. GUILD—Cut sets usually.—If the tubers are too small to be divided, I take a bit off the "rose" end. Mr. G. H. STEVENS, Gullane, said his experience in the growth of potatoes had been confined to light sand and sandy loams, and amounted to this—the more abundant they were manured, and the richer the manure was in nitrogen, the more abundant and coarser the crop, and in moist, sandless years, the greater the quantity of them diseased. His first experiment in proof was with a break manure, fed upon milk, linseed meal, &c., and very rich in nitrogen, at about fifty tons per acre. The produce was immense, and, although of the recent variety, they were so large and coarse that they were only fit for cattle food. His next experiment was with about 40 tons of pure stable dung alone, which produced 24 lbs. of potatoes to every five yards of the drill, or at the rate of 15 tons 11 cwt., or over 62 bolls, per acre, excellent quality. His third experiment was with 40 tons of stable manure, and 8 cwt. of a manure which the vendor designated phospho-peruvian guano, containing 40 per cent. of phosphate of lime and alkaline salts, &c., chiefly soluble, the nitrogen being equal to 14 per cent. of sulphate of ammonia, which produced 34 lbs. per five yards, or 21 tons 11 cwt., or upwards of 107 bolls, per acre. The drills were only 24 inches from centre to centre in both the above cases. The season was a fine sunny and warm one, with just a sufficiency of moisture to keep

the plot growing, and these were also of excellent quality. A relation of his, who cultivated one of the best farms in the county, and who was second to none as a potato grower, said he tried to grow them without a large percentage of ammonia, but had failed. His system was to grow them after lea, to which he gave four ploughings, including the making up of the drills and covering in, and, although he did lose a crop occasionally through an excess of nitrogen and moist seasons, still it paid. This year his break was three-years-old grass, ploughed, as he had stated, with 5 cwt. of lechato guano containing 14 per cent. of ammonia, equal to 56 per cent. of sulphate of ammonia. Although he was satisfied that a large percentage of nitrogen was provocative of disease, yet the risk had to be run to secure large crops, and in the event of the seasons being suitable, they were rewarded. No doubt the discovery of Schloesing, "that low form of organism exist in the soil which convert the nitrogen which we put into it into nitric acid," and which might come in contact with the alkaline matter of potatoes and turnips, and produce fermentation and consequent decay, yet as that appeared from experience not to be constant, were they to halt their work of producing the largest crops of potatoes and turnips possible because of this occasional risk? He knew the market gardeners used the richest manure, and in large quantities, to grow their crops, and he thought as potato growers they should do likewise, and take the risks.

The Chairman said he did not approve of ploughing deep into the soil the stable early in autumn. Farmers frequently ploughed dung into the soil (sometimes using steam-power for this purpose) to a depth of nearly 12 inches. This was simply burying their dung beyond the reach of the potato. In autumn, dung should not be ploughed in deeper than 6 inches, otherwise there was a chance of its more valuable properties being lost to the crop. Potatoes were not usually themselves put deeper than 3 1/2 inches; how, then, could the crop benefit from manure buried 8 inches below the sets?—(hear, hear). He supported Mr. Durie's view, that they should pasture their land at least one year for the potato crop.

THE OVERFEDDING OF RAMS.

At last meeting of the Gala Water Farmers' Club—Mr. Small, banker, Galashiels, presiding—r. Elliot, Hollybush, introduced the subject of the overfeeding of rams. Mr. Elliot said some parties thought that the breeders of rams had the whole power for remedying the evil in their own hands, but he rather differed from them. He thought the buyers of rams had more power than the sellers. Wherever there was a demand for an article of a certain kind it was sure to be produced, but if the demand falls off, so would the supply. They had the best remedy in their own hands, but not by buying the rams; and yet they could scarcely help themselves. It was an unmixt evil, and it had driven him to breed a good deal of his own rams. They could not go and petition the breeders of rams, because so long as they could sell their rams in an overfed condition they would do so. He had not much to say on the subject, but if anything were to be done to effect a remedy he would support it.

Mr. Riddell, Corshope, thought that there was another way of looking at the matter. What he would propose would be that they ask the other farmers' clubs to take up the subject along with them—the clubs at Galashiels, Peebles, Selkirk, and Hawick, and get the matter thoroughly discussed. And if all these clubs came to the same conclusion as themselves—that the overfeeding of rams was an unmixt evil—surely they would be able to find some remedy. If they would pursue a course of this kind, it would soon have an influence in effecting something towards securing a remedy. If those who had the management of shows were to give prizes for underfed rams, it would be one way of preventing the evil. He had mentioned the matter to Mr. Oliver, auctioneer at Hawick, and to Mr. Usher, the secretary of the Border Union Agriculturist Society, who said he had been working against it all his life. He (the speaker) thought that if they would send a deputation to confer with the committee of the Union on the matter, it would be a step in the right direction. But the matter should be discussed in the clubs, and if this were done, there would be a strong force of public opinion against it, and he moved that the secretary be instructed to communicate on the matter with the clubs he had mentioned. (Hear, hear).

IMPROVING WORN FARMS.

The laws of Nature are all favorable to the intelligent farmer who understands them and brings his operations into harmony with them. The method of enriching farms is precisely the same as that employed by individuals to enrich themselves in the mercantile world. The man who is successful in acquiring wealth earns every dollar that he can, and whenever he gets a dollar he sets it to work also, either by employing it in his business or putting it out upon interest. Just so the farmer who understands his business saves every ounce of vegetable matter and returns it to the soil, and there employs it in making, or rather in catching, other material of the same nature. That great scavenger of the universe, oxygen, is constantly going about seeking what it may devour. Wherever the vital force ceases, be it in a leaf in the remotest forest, or in an animal in the crowded city, oxygen immediately begins the work of destruction, tears down the solid tissue, and returns it in a gaseous form to the common stock in the great laboratory of Nature. In a word, wherever decomposition, combustion or respiration is going on, the forces of Nature are at work restoring what has already been used in the vegetable kingdom back to the great manure pile of the world. And all that the farmer has to do is simply to employ what vegetable matter he already has on his farm in assimilating matter from this common storehouse.

If he does this, if he carefully husband and returns to the soil all the waste material in the shape of manure, and markets his products in a concrete form, in wool, in cheese, live stock, etc., and couples this with a judicious system of rotation and cultivation, such as is best adapted to his soil and climate—why, his farm must grow richer from year to year and all you would have to do in order to learn how fertile a farm was, would be to inquire how long it had been tilled, for "his accretion from the world's common stock is more than sufficient to make up for what is taken away in the shape of market products. In practice, however, an old farm is too often a synonym for a poor one. Many farmers will not only use up all the vegetable matter originally stored up in the soil, but they will even let their land lay without any crop upon it, thus depriving it of the opportunity of drawing from the common storehouse, while it is being washed into the nearest brook and being overrun with weeds. Thus they actually starve their land to death without any compunctions of conscience, or their otherwise sensitive pocket never discovering from whence its sensations of poverty originally come. A good crop in the hands of a poor farmer is better for the soil than a poor one, as it sets free more matter that is locked up in the soil, and assimilates a greater quantity from atmosphere. One reason why clover enriches lands faster than any other crop, is because it assimilates more matter from the atmosphere than any other crop.

Mr. Snow, Pirbright, thought that as long as feeding brought out the points of top and bottom prices were got for them, so long would they continue to be overfed. The Chairman said that people going to sales could not help buying these overfed rams, because there was nothing else to buy. He had never heard one single person speak in favor of them. It came to be a question what breeder would have the pluck to try bringing in underfed stock. If two or three of them were having their attention called to it, he had no doubt that arrangements might be made for bringing in rams in the state in which farmers wanted them. He approved of Mr. Riddell's motion, to have the matter brought before the farmer's clubs in the district.

Mr. Brown, Edinburgh, approved of the motion. He, however, thought that the farmers had the power all in their own hands. It was not a question what breeder had the pluck to try bringing in underfed stock, because one or two breeders already did so, and their rams were famed all over the country. If the farmers were to stick to these, it would soon bring up the prices to far more than the overfed ones. Mr. Middleton, Stow, thought the farmers should discuss the evils of overfeeding both to the purchaser and the breeder, and it would do a great deal of good. In the production of such stock the breeder threw away an immense amount of money for nothing but appearance, and the purchaser paid for this appearance and did not get what he wanted.

Mr. Stewart, Collieston—Suppose a ram is not fed at all. It is said that like produces like; and so, would a ram small in stature and bone produce as good an animal as a well-fed ram does? Dr. Middleton—It would produce bone and muscle; and overfeeding produces nothing but fat, and not bone and muscle. The motion was unanimously agreed to, and the Secretary instructed accordingly.

HOW SHALL THE STALLION FOAL BE REARED.

It is specially imperative that a young entire should be kept constantly growing, should receive no check, should be so managed that he will develop the fullest amount of bone, muscle and constitution. This can only be effected by a liberal and varied dietary. Whilst still with his dam he should have a few pounds of bruised oats, and unless his pasture is particularly good, and his mother a first-rate nurse, a pound of bruised linseed cake should be added. Even at this early age he may have the head-stall put on during the day, and be accustomed to be led about, and stand tied up. After weaning, when colts are very apt to fall off in condition, the youngster must be carefully fed. Having already learned to eat oats, the supply will be increased. Unless the clover or vetches are particularly fresh and good, he should have dry fodder, either cut or long; and, throughout the winter, will be much the better of a few pounds of swedes or carrots, for which in many parts of England mangolds are now substituted. A strong early foal, now nearly a year old, will eat daily 7 lbs. or 8 lbs. of good oats, about the same weight of roots, 12 lbs. or 15 lbs. of clover or other hay or of hay and straw chop, a pound or two of linseed cake, and a bran mash twice a week. Beans or peas are too heating for such young subjects. The colt should have plenty exercise, taken either of his own accord in an open yard, or if he lies in a loose-box, he must be led about for an hour daily. The sooner these colts are handled the better, and the discipline must be continued regularly. Without exercise the young stallion will never thrive as he should do, nor acquire that robustness, muscle, and of action so important in a good stud horse.

THE BUSINESS OF FARMING NEVER DULL.

Of all business men, farmers this year should be the most contented. No matter how prostrated trade may become, there is a ceaseless demand for the products of the farm. The large may grow chill, the loom cease its active motion, and the anvil rust for want of use, but there is a profitable market at all times for farm and garden crops.—(Glasgow Telegraph.)

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HUNGARIAN GRASS.

Hungarian grass is a good selection for either Summer or Winter feed for cattle and other stock, as it produces a large yield of rich herbage if cut before it gets too old. As it comes into blossom and afterwards it is very much inclined to develop woody fibres in its stems. Hay made from this plant cut after flowering, contains about 30 per cent of woody fibre which is so very hard as to be objectionable on the score of health. If cut at the beginning of the flowering season, or a little while before, and well cured into hay, it is just about equal in nutritive properties, pound for pound, to the cereal grains, and as much oily matter, but is not so rich in starch and other supporters of respiration. For soiling it will produce more milk and make a better balanced food if fed in connection with fodder corn, than if used alone—the fodder corn having an excess of starch, etc., which is lacking in Hungarian grass. For Winter use it is also better to be fed with something like fodder corn, mangolds, rutabagas, or other food rich in carbohydrates.

The ground for cultivation Hungarian grass should be well prepared so that it should be fine and light. The seeds of this grass are small and sensitive about germinating. If planted in a cold, clammy soil they will not rot, and if worked in too deep they will fail to sprout. But an ill success can be expected from a cold, lumpy soil. If drilled in, 3 pecks of seed to the acre will be enough. If sown broadcast, 4 to 5 pecks, according to the richness of the soil, will be required—the richer soil taking more seed to prevent the stalks from being too coarse. If the ground has been properly prepared, and the weather warm, and the seeds lightly worked in, they germinate quickly, and are soon out of the way of competing weeds. The time for cutting is at the beginning of flowering—not later; a little before is better to prevent too much harshness of straw. The curing is an easy matter, as the grass contains about 20 per cent less water than clover cut at the same age. With a good soil and fair cultivation, and reasonable cutting, a yield of three or four tons or even more to the acre, may be fairly anticipated of fodder more nutritious than average hay. The common error in growing it is allowing it to get too ripe before cutting, causing not only harsh stems but a loss of nutritive value.

TRANSPLANTED TREES.

Having given in last week's paper some directions for transplanting, we offer now a few hints on the care it is necessary to bestow after the trees are successfully set. Evergreens, if three or four high, or over, should three or four stakes around them, and a rag or leather on the tree, with a cord to fasten them to the stakes to prevent the wind from swaying them. Stretch gunny sacks on the stakes on the south side of the evergreen trees, to keep the scorching sun off in dry, hot weather. At such times a good sprinkling of water in the evening is a good thing. A tree is a living thing—may one not say being? It has a source of feeling, and a wisdom of growth and production. When one amputates a limb, if in the opinion of that tree that limb was necessary and useful to itself at work to reproduce the limb, provided it has the material at hand to spare to make another. So when the tree is suffering for water, it calls on one for that indispensable article—which wounded man and wounded tree so much need. I give it water—not the surface of the ground but the roots of the tree, where it can drink it to use. And see the tree smile and raise its head. Do not neglect your trees.

Deciduous trees, fruit trees, treat in the same way, they need not be staked if they are small. But get a roll of building paper—such as carpenter put under the siding of houses, tarrad paper—cut it in strips large enough to go around the tree loosely and lap over an inch or two to make a tight joint; put it around the tree and tie with two pieces of twine; pack the dirt closely around it at the bottom to keep the tree braced out. Let the paper stay on Summer and Winter. It answers a fourfold purpose. 1—it keeps the borers off which destroy a vast number of fruit trees. I do not know that it will keep off the peach grub—this is not a peach tree section. 2—it keeps the heating, drying rays of the sun off, from which our trees suffer greatly both Summer and Winter in this dry atmosphere of the Northwest. If our trees are damaged by Winter, it is usually that the bark of the tree is first and most generally killed on the southwest side; thawing in the sun and freezing at night, the severer the cold the greater the damage, but the greatest exposure is on the southwest side. 3—it keeps the rabbits off; many a farmer has lost his trees by being gnawed in Winter by rabbits. 4—it softens and green, saves washing with soap and lye. The paper costs 4 to 6 cents a yard; a yard will wrap three or four trees; easily put on, try it.

TO RID BUILDINGS OF HEN LICE.

A correspondent of the *Poultry World* says that by thoroughly lining his poultry buildings each year with red paper he has been able to keep his hens wholly free from lice. Although aptly time this paper was first used his hens and buildings were badly infested with lice they soon disappeared, and for two years they have not returned and no new ones have taken their places. If this remedy will prove effective it ought to come into general use, not only among poultry breeders but also on the farm. Farmers hens are very apt to be afflicted with lice, and it is supposed that sometimes they communicate them to horses and cows! There is no doubt that lice are very injurious to hens, and that it is both cruel and unprofitable to leave them undisturbed. The tarred paper remedy can do no harm and probably be all that will be necessary to drive and keep them away. It costs but little and should be given a trial.

It is a little odd that in this country where every facility exists, so few ducks and geese are raised. These are proverbially the most hardy and long lived of all our poultry. In places where cholera, croup, etc., sweep off the fowls and turkeys, geese and ducks, which are not subject to these diseases, should be tried. In densely populated Great Britain and even in Belgium where one would suppose there was little room, more geese are raised to the square mile than in the United States. In the interior ducks and geese can be raised about as profitably as other kinds of poultry, and where diseases prevail, more profitably.

When a hen wants to sit, make a new nest with clean straw or hay, sprinkle it with a little diluted carbolic acid, Persian insect powder or common flour sulphur. When such precautions are not taken hens are often literally driven from their nests by lice, and the eggs are lost, to the chagrin, and sometimes to the perplexity of the owner, who does not know what is the matter. Hen lice are not very big, but they are influential, and should be systematically interviewed when a poultry keeper is desirous of success.

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NO. 4.





Literature.

A MARVELOUS CONJUROR.

The Russians have long exhibited a remarkable taste for juggling and all that...

interrupted by the czar with a thoughtful air inquired of him. "Do you count on yet remaining some time in St. Petersburg?"

THOS. LOGAN IS NOW SHOWING NEW SPRING GOODS. AMERICAN Grey Cottons, White Cottons, Grey and Bleached Sheetings, Pillow Cottons, Bed Ticking, MORSE, KALEY & CO'S FULL WEIGHT, White, Unbleached, Drab & Brown Ball Knitting Cotton, GREY & WHITE, Shaker Flannel, NEW STYLES LIGHT & DARK PRINTS, FLOOR OIL CLOTHS, THOMAS LOGAN Remnants! Remnants! DEVER BROS. annual REMNANT SALE WILL COMMENCE ON Monday morning, when the goods will be Arranged for Inspection. REMNANTS IN Grey Cottons, White Cottons, Prints, Winceys, Flannels, Tweeds, Homespuns, Dress Goods, Black Lustres, Black Silks, Merinoes, Swansdowns, Tickings, Fowelling, &c. In order to insure a Final and Absolute Sale they will be marked AT HALF PRICE. Dever Bros

BECKWITH & SEELY, Attorneys-at-Law, Notaries Public, etc. CITY HALL FR DERICTON. ALLEN & WILSON, Barristers and Attorneys AT LAW. WAVERLY HOUSE FREDERICTON. DENTAL NOTICE. Jas. A. McAllister, D. D.S. S. S. BLACK, M.D., HOMOEOPATHIC PHYSICIAN & SURGEON. EDWARD CADWALLADER, Organist, Christ Church Cathedral. CENTRAL FIRE INSURANCE COMPANY OF New Brunswick. Scrap Pictures. STORES TO LET. Office to Rent. NOTICE FOR SALE. KEEP COOL. Novelty Oil Cans. GILES LINIMENT. IODIDE OF AMMONIA. KENDALLS SPAVIN CURB. DAVIS & DIBBLEE.

Groceries and Provisions BENJ. EVANS, New Brunswick Railway WINTER ARRANGEMENTS. Fredericton Railway WINTER ARRANGEMENTS. 6.40 A.M. Through Express Train leave... 8.00 A.M. Express Train leave... 9.15 A.M. Express Train leave... 2.30 P.M. Express Train leave... 3.50 P.M. Express Train leave... 4.30 P.M. Express Train leave... FANCY CABINET WARE J. ADAMS' CABINET SHOP. RETIRING DRY GOODS TRADE OWEN SHARKEY. Special Notice. CASH FOR HIDES. Gibson Tannery. TAKE NOTICE! F'ron Leather Co. Flour! WHITTIER & HOOPER. 50,000 Sold Annually. Table and Pocket Cutlery, and Razors. Flour Flour. Cheap Light. CUT NAILS.

T. W. SMITH. BOYS BE TRUE TO THE BLUE, Having secured the sole right from C. H. THOMAS & CO., Fredericton Tie Factory, for the sale of the MCKENZIE TIE, approved off by D. Banks McKenzie, will be sold to the Reformers at a small advance. Men both Old & Young "Brace Up," For the CHAMPION SHOULDER BRACE will always be found at THOS. W. SMITH'S. Are you in need of a Good Suit of Clothes! if so call and examine as fair assorted stock of ENGLISH, SCOTCH, GERMAN, CANADIAN and DOMESTIC CLOTHS, as can be produced in the city. A complete line of GENTS FURNISHING GOODS. THE LATEST NOVELTIES PAPER COLLARS, IN GLASS JARS, TRUNKS, PAILS, ORNAMENT BOXES, &c. a superior stock of Ready-Made Clothing, HATS, CAPS, &c. ALWAYS ON HAND. A Perfect Fit in all the latest Styles Guaranteed, at BOTTOM PRICES! All Goods Warranted as represented at the Clothing Establishment of THOS. W. SMITH, Fisher's Building, Queen Street, Fredericton.

R. M. McDONALD, (LATE OF McDONALD & KEDEY.) Is now showing a splendid assortment of English, Scotch and Canadian Tweeds, GENTS and BOYS WEAR. Also a variety of PLAIN and FANCY COATINGS, LINEN COLLARS & CUFFS, NECK TIES, LINED KID GLOVES, &c. Balance of Winter Dress Materials, Furs, Shawls, Berlin Wool Goods, &c., Are being cleared out at Great Reduction from former prices previous to the arrival of SPRING GOODS. TERMS CASH. R. M. McDONALD, Next Door to Dever Brothers. MORE NEW GOODS! MILLER & EDGECOMBE Are now opening several BALES and CASES of GREY & WHITE COTTONS, Excellent Value, 36 inches wide. Selling at 6, 7, 8, 9 and 10 cents per yard. COTTON DUCK, PLAIN & PLAID, AT LOWEST PRICES. PRINTS, TICKINGS, SHEETINGS &c., BLACK GOODS. We have in stock a superb Stock of Mourning Goods all the latest makes. CORTLAND WATERPROOF BLACK CRAPES, a full line of prices. INSPECTION INVITED. MILLER & EDGECOMBE.