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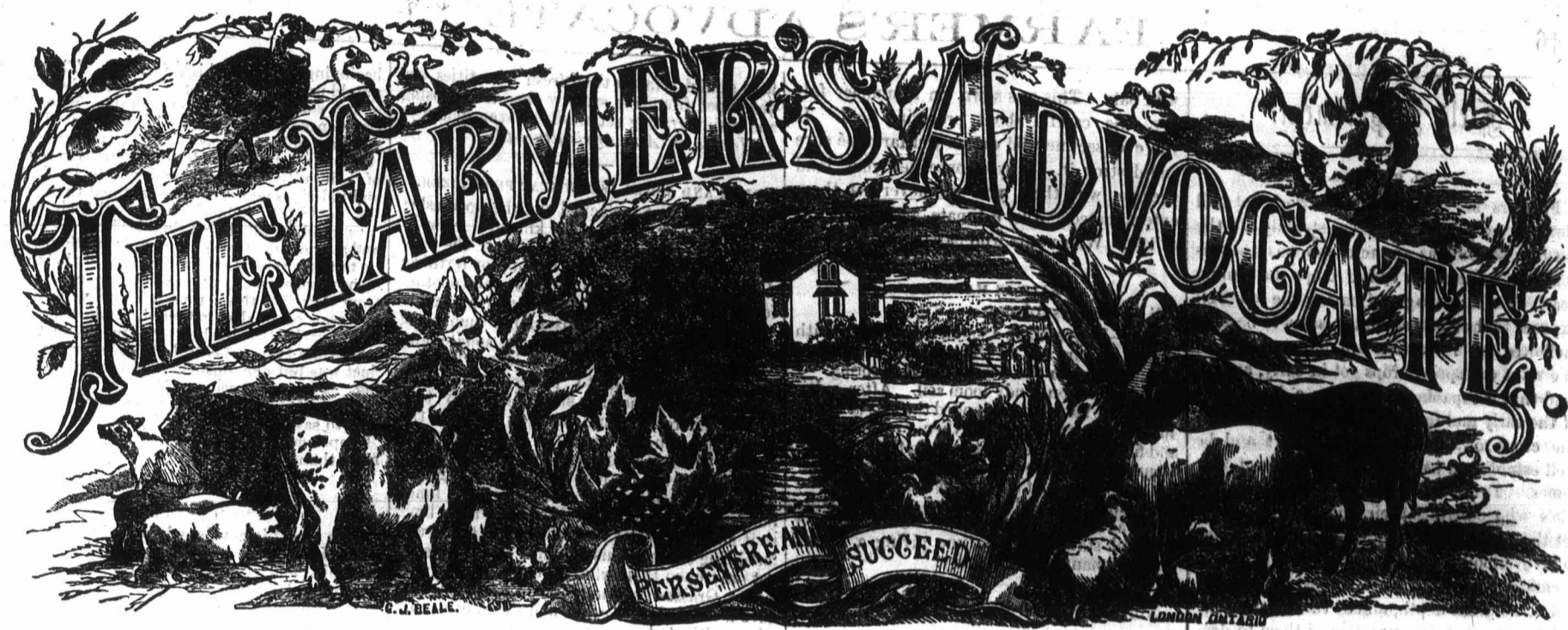
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GLEN, PRESIDENT, HAWA, ONTARIO.



VOL. VI. { WILLIAM WELD, Editor and Proprietor. }

LONDON, ONT., OCT., 1871.

{ \$1 Per Annum, Postage Prepaid. } No. 10. { Office—Dundas St., opp. City Hotel. }

To Our Patrons.

We are pleased to inform you that we have secured the services of Mr. J. Mackelcan—late leading editor of the Canada Farmer, and for several years, correspondent of the Country Gentleman—to aid us in editing and managing the FARMER'S ADVOCATE.

Mr. Mackelcan has long been known to the agriculturists of America as a practical farmer, and one of the best writers on agricultural matters in Canada. His knowledge of live stock particularly, is greatly appreciated among breeders. Our aim will be to make this journal equal to any agricultural paper on the continent, and to give our patrons a really first-class paper, thoroughly devoted to the interests of the cultivators of the soil.

As we shall be put to a heavy additional expense in securing a continuation of such services, we must look to our patrons to lend us a helping hand in maintaining our position and increasing the usefulness and popularity of the FARMER'S ADVOCATE, by largely increasing its circulation for 1872. We hope that by the 1st of January, 1872, our subscription list will at least be doubled. The arrangement just made will leave us more at liberty to attend to the Emporium, and to devote more of our time to visiting our friends and obtaining information.

Mr. Mackelcan will attend to all matters concerning the purchase and sale of thoroughbred stock, and, being a first-class judge, his recommendation can be relied upon.

Co-operation Among Farmers.

Farmers need a little better understanding of the advantages to be derived from co-operating together with one another. Farmers' Clubs should be organized this fall in every ward or section of each township, and some place of meeting appointed where they can assemble together of an evening, say once or twice a week, to discuss matters generally, regarding the crops, markets, stock, etc. Efforts should be made to counteract the doings of the speculators and middle men in forming combinations to cheat the hard-working producer out of a portion of his earnings,

for their own benefit, by working into each other's hands to lower prices in local markets, in order that they may sell at a heavy margin in more distant ones. Money should be subscribed sufficient to obtain at least half a dozen of the leading agricultural papers, known to be favorable to the farmers' interests and opposed to speculators, and in these the market reports should be closely scanned. Arrangements might be entered into for the purchase of choice male animals, to be used by the members of the Club and kept where they can be easily accessible by one who has every convenience for doing so to advantage, and at a moderate expense. Discussions of a general nature should take place, bearing upon all that is likely to affect the farmers' interests. We believe that by a proper system of co-operation and unity of interests, farmers might be greatly benefitted every way.

Attend the Fair.

The number of Agricultural Fairs to be held this year is larger than ever before. In addition to the usual County and Township Exhibitions, we have some already on a larger scale, with premium lists amounting to from \$6,000 to \$8,000, located at leading central points, such as London, Hamilton and Guelph have been organized. These will prove peculiarly attractive, as such liberal prizes will induce a large attendance of stock breeders and implement makers, with their animals and implements. Railways have reduced the costs of travelling, as well as abridged the time required so greatly, that there is no excuse for the farmers to stay at home during these stirring times. Many new ideas will be gained, many friends made, and all will tend to advance our agricultural interests.

Northern Ohio Fair.

Editor Farmer's Advocate. Sir,—In the September number of the FARMER'S ADVOCATE, I observed a notice of the Northern Ohio Fair, to be held at Cleveland on the 12th to 16th of Sept., and, being a little desirous to see something of Yankee Land, on Monday the 11th, I, together with one of my boys and a little three year old Durham Bull calf, which weighed 2250 lbs., started for the Buckeye State. We arrived at Cleveland on Tuesday, and immediately made for the Fair Grounds, five miles distant.

As you invited your Canadian friends to give you a description of the Show, (provided you were not there) I shall now endeavor to do so, at least to give you some idea of a Yankee Fair.

The Fair Ground comprises some 90 acres of beautiful rolling land, soil, sandy loam. It is beautifully interspersed with shade trees, and is admirably adapted for the purpose. The Cattle and Horse Stalls occupy nearly two sides of the field, while the Sheep and Hog Pens occupy a very considerable space in the Grounds. As to the Show as a whole, it was a splendid affair, although coming behind our Provincial Show in one or two departments. In most others it was far in advance. In Short Horns, the animals exhibited were splendid specimens. One herd, shown by Mr. Jesse Waglen, Washington, were as near perfection as it is possible almost to be; his bull, which obtained the first Prize and the Sweepstakes, was the most beautiful animal I ever saw; he was not very large, weighing at three years of age, 2000 lbs., but he was a perfect picture. There was not a very large quantity exhibited, but the quality was excellent. The Herefords made a very good show. Ayrshires, Devons and Alderneys were pretty well represented. Of the horses, I need only say that they were splendid, especially the Carriage horses, fine, noble animals, 16 and 18 hands high. As a whole, I never saw a display of horses like it in Canada. In Sheep, the Merinoes, of course, were the most numerous, but some very good flocks of Longwools were shown. The best of these however were from Canada, William Jeffrey, of Whitby, and Geo. Mitchell, of Darlington, showing some very fine sheep. In hogs there was a very fine display, the large breeds however seeming to be most prevalent. The Lincolnshires are beginning to be introduced, and there was some inquiry for Berkshires.

But it was not so much in Live Stock that the Show was such a complete success, as in the other departments; all of which, with the exception of Farm Products, were splendid. With the single exception of cheese, in the Farm Products, any ordinary Township Show in Canada would far outstrip it. As an example, there were only 23 bags of grain, all told, and half bushels at that. I could only count seven tubs of butter. In cheese, however, the display was very fine, one cheese weighing 1850 lbs. The flowers and fruits were magnificent, filling an immense hall, 140 by 60 to its utmost capacity, almost every variety of each being displayed. Perhaps, how-

ever, the Mechanical Hall, together with the various implements for labor-saving purposes were the most attractive and useful portions of the Exhibition. From the powerful steam engine down to the latest invention—a machine for catching Potato Bugs—every kind and variety of labor-saving implements were on hand; one large building was filled entirely with sewing machines. With all these machines, implements and inventions, there were, of course, the usual amount of talkers, setting forth the merits of their wares, and claiming their's to be the only ones perfect. I can not, however, pretend to give any detailed statement of the different departments; suffice it to say, that in the general arrangement of the Grounds, the immense capacity and value of the Buildings, and the display of all the various mechanical, scientific, and ornamental portions of the Exhibition, it was far ahead of anything I ever saw at our local or Provincial Fairs in Canada. In the necessary and more immediate products of the farm, however, we are far ahead, their farm products being insignificant. Their cattle though good, were not plentiful, at least to one who had ever been at our Provincial Fairs. I may say that the animal I took with me did not disgrace Canada, as he took the second prize in the aged class, being only three years old and being beaten only by a bull that had taken the Sweepstakes at three Shows previous to this one. Messrs. Mitchell and Jeffrey also took the principal prizes in the Longwooled classes of sheep.

The officers of the association treated us very kindly, doing all in their power to render our visit agreeable. Many inquiries were made for Mr. Miller, who was there last year with stock and there seemed to be considerable regret that he had not this year put in an appearance with some of his fine animals.

As to the number of people on the grounds, it was simply immense. On Thursday alone, 50,000 tickets were sold. The weather was beautiful, and the display well worth a trip across Lake Erie to see. There was one feature that was extremely pleasing; during the five days that I remained upon the show ground, I did not see one single individual drunk, or even tipsy—of course nothing intoxicating was allowed on the ground. As to the horse racing I can tell you nothing, as I did not visit that part of the grounds. I believe, however, that the horses ran well, the people hurrahed loud, and the winners went home well pleased.

Hoping you will have a splendid Western Fair at London, I am, dear sir, Yours truly, ALPHA.

Field Department.

FALL PLOWING.

Farmers set your teams to work at fall plowing early, and keep on steadily all the autumn, so long as an acre remains that is going to be used for spring crops the coming year. The advantages of having the soil well exposed to the frosts of winter, so as to become mellowed by its action are now understood. We want our spring crops got in early, and in land that is capable of absorbing a large store of the early and fertilizing spring rain, so that the crops sown may get a good start and be well established before the dry weather of May comes. It is a noticeable fact that those farmers who cultivate their lands well and early get the best returns from it. Another fact not to be overlooked is, that most of the insect enemies of our crops pass the winter in the soil at no great depth, and by turning over the soil we expose a large portion of them to destruction from the caprices of the weather.

SEEDING DOWN TO GRASS.

There is much complaint this year of the failure of the spring sown grass seeds to catch well. This is mainly due to the exceeding dryness of the season for a month or six weeks following the spring seeding. We have seen many fields where the failure was so complete that practically nothing can be done short of turning the stubble under with the plow and re-seeding next spring on another grain crop. Others, again, especially those seeded down early and with a liberal supply, have enough grass on them to be worth saving for next year's hay crop. On some of these the grass has taken in a patchy manner, leaving blanks here and there. These may be greatly improved by sowing timothy seed after the fall rains commence, say from the 20th Sept. to 15th Oct. Sow on the bare patches, and cover it lightly, either with a garden rake or bush harrow. So great is the tendency of our climate now to become drouthy and uncertain during the latter part of spring, that the better class of farmers and stock breeders are having recourse to sowing timothy in the fall, either on winter wheat immediately after seeding, or on land that has borne a crop of grain the same season. In this case the stubble is well harrowed immediately after harvest to start the weed seeds in it; afterwards it is dressed with a light coat of well composed manure, and turned under with a gang plow. The timothy is then liberally sown in September, and makes enough growth the same fall to insure a fair crop of grass the following season. Clover seed is then sown upon the land with the earliest warm days in spring. The timothy will stand the winter as well as winter wheat does. Clover, however, will not do so when sown so late, and therefore must be sown in spring. We believe that if both clover and timothy were sown together about the middle of August on stubble land turned under, the clover would come forward enough to get such a foothold of the soil as to enable it to resist the effects of frost as well as that sown amongst the grain in spring. Much would, however, depend upon the season, for with a dry August, the seed might fail entirely. There is no doubt, however, that under our present plan of seeding down grass in spring on grain crops, the plants can make but little headway until after the grain is harvested. It will soon become a necessity to obtain good, heavy crops of grass without the intervention of any stolen crop between the seed-sowing and the cutting of the grass.

CAUTION, WILD OATS.

One farmer in London Township has thrashed 170 bushels of fall wheat and has one quarter

wild oats. This was sown on a summer fallow. Be careful about procuring seed. If you ever see one wild oat on your farm, be sure and destroy it. If you once get your land over-run with them you will never get them exterminated. Just estimate, 44 bushels out of 170. Who wants wild oats?

SALT AS MANURE.

Edi or Farmers Advocate.

Sir:—I have made a small experiment with salt as manure and as I think with some benefit. I give you the results this last spring. I sowed wheat on sandy loam soil. After cultivating the field I then applied the salt at about 400 pounds an acre, and then cross dragged and finished. The effect was that the portion manured with the salt was five days earlier for cutting, and of a much better color in the straw and grain and while that on either side of it was considerably trinkled down, it stood firm and stands all the time giving a better yield in quantity and quality.

JOSHUA BOWLER.

North Oxford, Sept. 6th, 1871.

FEWER ACRES AND HEAVIER CROPS.

American farmers can not be too often reminded that what we should aim at is, fewer crops, cleaner culture, and a larger yield per acre. We are a great beef-eating people, and are taking kindly to good mutton when it can be found. Already a large proportion of the beef consumed in the Atlantic cities is raised west of the Mississippi. The price for the moment happens to be low, but it will not remain so long.

The farmer who raises good beef or mutton in New England, New York, Pennsylvania, Ohio, Indiana, Illinois, Iowa, or any of the older settled States, need not fear that the half-wild cattle of Texas or elsewhere are going to drive him to the wall. There is no sort of danger. Unaided nature cannot compete with agriculture any better than the Indian can compete with the Anglo-Saxon.

Our population is rapidly increasing, and the demand for meat will continue to increase from year to year. The causes which lead to an over supply for a few months are only temporary. The demand is increasing, and he is a wise farmer who looks ahead and quietly and perseveringly improves his farm and his stock. He is certain of his reward. Wool, mutton, beef, pork, cheese, butter, milk, poultry, and all other animal products will be wanted more and more as the condition of the world improves. There are millions of people, even in Europe, who seldom taste fresh meat. An Irishman eats double the meat and does double the work here that he did at home. Even the Chinese in this country eat meat as soon as they can earn money enough to buy it.

The point I want to get at is this: We have a large country. Land is comparatively cheap and labor comparatively high. Crops are great in extent but small in yield, and many of our farms are getting more weedy and less productive. Now, what we must aim at is to make them cleaner and richer. We must devote less land to the production of wheat and other grain that is sold, and more to the production of such crops as are fed out to animals on the farm.

We all know that it is far better to raise 300 bushels of wheat from ten acres than to plow, seed, and reap twenty or thirty acres to get the same amount. We obtain no more money for the crop in the one case than the other, but the profits are quadrupled. The market is not glutted with grain, and there will be more meat and wool to sell, and more manure to use. To bring this about, we must summer-fallow when necessary; sow clover more frequently, and not sell a pound; let our land lie longer in grass; and when it is broken up and planted to corn, cultivate it very thoroughly, and not overcrop it before it is seeded down again. In some cases it will pay to summer-fallow, and then seed the land to grass without a grain crop. We must aim to save labor, enrich our land, reduce the area under tillage, and when it is ploughed, cultivate thoroughly to kill weeds and develop the latent plant-food in the soil.

Plant-food is the farmer's capital. It is present in large quantities in most of our soils, but a great proportion of it lies idle. Our profits will be in proportion to the amount of this plant-food that we can render available and keep in active circulation without allowing

it to diminish faster than fresh quantities are developed from the soil by the decomposing and disintegrating action of the atmosphere.—*J. Harris, in Am. Agriculturist.*

LIME AND ASHES AS A WHEAT FERTILIZER.

The lime that is slacked and the wood ashes that is left, after firing the kiln are generally thrown to one side and sold at half the price of pure burnt lime. As a manure or fertilizer for wheat it is almost as good as guano or other fertilizers offered for sale. The above mixture of lime and ashes contains a large amount of soluble salts, and the sulphates, phosphates and carbonates and lime salts are just what the wheat plants want to perfect straw and grain. Experience has shown it plainly that where this refuse lime has been spread, the grain has come to maturity earlier, growing stiff in the straw, and yielding large crops of well filled heads of the best quality of grain. This can be seen mostly on the farms of lime-burners, who haul the mixture upon their land as it accumulates at their kilns, and the great fertilizing effect of this manure can be seen, not only upon their wheat, but on their grass land. Grasses grow much more luxuriant and have a much darker color, and the clovers and other cultivated grasses, grow above and crowd out the ordinary grasses. We have found that lime and ashes mixed as a top dressing for clover or for corn was worth as much as plaster, if not more, as it has always helped the corn to grow faster and helped it to ear better, and gives us a much larger yield with less smut on the stalk than corn that had no ashes and lime applied. Therefore we would advise our farmer friends to apply lime and ashes as a fertilizer for the cereals.

SOME HINTS FOR LIGHT LANDS.

A committee, after visiting the farm of F. D. Carter, of Northport, says:

"In 1868 there were on the place six or eight cows, a pair of mules, a horse or two, and 30 head of Meino sheep. They made about 75 loads of manure. The 600 acres of arable land was cut into twenty or more small fields, divided from each other by old hedge-rows, full of briars and small cedars. Several hundred acres were in the old common, that yielded scanty pasture for two or three months in summer. Much of this common was overgrown with oak bushes, little cedars, and hick-ry stumps. Now we find the farm stocked with 83 horned cattle of superior thoroughbred stock, 52 horses, 27 sheep, 72 hogs, 300 hens and 35 ducks, and he buys no hay, no corn, no oats no roots. He has 50 acres in one clover field. The sole outlay for cattle food, is about \$500 for wheat shorts. Instead of 75 loads of manure, we estimate his compost piles for use this spring and summer to contain 6,000 loads."

Manure-making with this vigorous farmer is not a theory—an effort and a wish merely as is with thousands. He makes it. There are the immense banks of it standing a fathom deep in the man stockyard, an ironing above the furrows of all the plowed fields. His compost pile is not the winter's accumulation thrown into the yard from the stable doors and windows to be hauled in the fields in April and May. Manure making and composting goes on the year round; no day of winter is so cold but it sees additions to the piles of fertilizers, no summer morning without its round of chores that swell the heap. "Everything," he says, "must have a mother, and manure is the mother of all things." He keeps an ox team, and has them driven steadily at work all the year round, hauling absorbents and composting stuff. His task is, five loads before dinner and five after dinner from the woodlands, muck, weeds and salt mud. His calculations are that the solid droppings of a cow or ox amount to something like ten loads in a year, and that ten loads of muck and leaves should be composted with it. For manure-making he says 5 sheep equal a cow, a horse equals two cows, and two hogs equal a cow.

WHAT IS HIGH FARMING.

It is a system of tillage and farm management that is self-sustaining, a system that takes nothing but the bare land, the domestic animals, the farm implements and machinery, and cultivates the soil, sustaining the family and the animals, pays the annual taxes, defrays the expenses incident to the improvements that must be made on the farm, cancels the annual interest on the money invested in the land, eventually pays for the land, all from the products of the soil cultivated; and after one, two and three decades of years, leaves every acre in a far better state of fertility than the soil was in the

beginning. This is high farming. There are untold numbers of quiet, unobstructive tillers of the soil in many of our States, who have commenced precisely as we have indicated, without one dollar of cash capital; who have no means whatever besides the natural resources of their cultivated fields, and who by hard work and judicious management sustained their families, paid for all their valuable improvements, and at the same time, have brought their land up to that state of productiveness by their judicious management, that every acre now yields from two to three tons of hay where only one year originally gathered, and they harvest nearly two bushels,—in many instances more than two,—of cereal grain, where the product was but one bushel. That is high farming. Yet such a system of husbandry is usually sneered at simply because the proprietor knew how to save his money to defray the expenses of improvements, rather than spend three times more than he made.—*New York Observer.*

THE "FULTZ" WHEAT.

This wheat is now largely sown in Mifflin, Juniata, Lancaster, and other counties of Pennsylvania, and the Agricultural Department has ordered 200 bushels for distribution. It is nearly smooth, sporting beards occasionally; very evenly six-rowed; the straw stands well, the chaff very close and adherent, and it is said never to have been affected by weevil, the grains short and plump, and in color a light dull red or dark white. A friend who is well acquainted with it and its history and who can be implicitly credited (Mr. J. K. Hartzler of Maccovetown, Pa.) has kindly sent me an account of its origin and appreciation, from which I am enabled to send you the following statement, mostly in his own words:

Abraham Fultz, the man to whom, under Providence, we are indebted for this productive, hardy and weevil-proof wheat, is a carpenter, but owns a small mountain farm of about 30 acres, lying at the foot of Jack's Mountain, in Menno township, Mifflin county, Pa. In the harvest of 1862, while assisting a neighbor, Christian Yoder, his attention was attracted by three beautiful heads of smooth wheat, apparently from the same root, growing among the old Lancaster Red. He plucked them off, and sowing them the same fall, he harvested the following year a half pint. In 1863 his yield was a bread basketful; in 1864 he had 19 sheaves. The next year, Christian Detweiler, a neighbor, got a bushel of him and sowed it along the north-west side of an old orchard where it was partly smothered by snow-drifts and much shaded by apple trees, and then pronounced it "hardly worth growing;" but on being threshed, it yielded much better than the Lancaster Red. So Mr. Detweiler sowed it again, about three acres in a sandy field. It stood up beautifully alongside of the Lancaster, and yielded 94 bushels clean wheat. David Detweiler sowed 13 bushels of that product, and harvested 300. It became famous among the farmers of Kishacoquillas Valley, in which it originated, and was carried into other valleys. On the limestone farms, its common yield has been from 30 to 35 bushels per acre, though it has yielded as high as 42 bushels, and in Juniata county it is now so universally popular that there will probably be three acres sown of it to one of other kinds. It has never been affected by weevil; the chaff adheres closely to the grain; it is tough to thresh, and persons sowing it for the first time will not find a very showy appearance above ground in the early fall and spring, but it abundantly makes up at harvest.

This variety fortunately never fell into the hands of speculators, and it is now in process of distribution to such an extent that no man, nor any dozen of men, can control its sale or put it up to ten dollars a bushel. Abraham Fultz is a plain honest man, relying on his daily labor for support. With the sharp practice of men like Ramsdell and Deitz, he doubtless could have made a fortune; as it is, he has never received even a compensation for his trouble, rated at its lowest worth. He has received no other reward than any others who have sown this wheat, and in a smaller proportion than most.—*Country Gentleman.*

"KISS ME, MAMMA."—"Kiss me, Mamma, before I sleep." How simple a boon, and yet how soothing to the little supplicant is that soft, gentle kiss! The head sinks contentedly on the pillow, for all is peace and happiness within. The bright eyes close, and the rosy lip is revealing in the bright and sunny dream of innocence. Yes, kiss it, mamma, for that good-night kiss will linger in memory when the giver is mouldering in her grave.

"I keep the best bread," said a certain baker the other day to a poor fellow who complained of the inferior quality of the article he had purchased of him the day before. "I don't doubt it," replied the customer. "Then why do you complain?" asked the baker. "Because I would suggest that you sell the best bread and keep the bad," was the reply.

Correspondence.

Editor Farmer's Advocate.

M'CARLING WHEAT AND NEW BRUNSWICK OATS.

SIR,—Last spring you sent me four ounces each of seed of the McCarling Wheat and New Brunswick Oats. Now the harvest is over, I have threshed and cleaned the produce of the samples sent me, and find I have obtained eight pounds of the wheat and twenty-eight pounds of the oats. I think the wheat is the best ever seen in these parts; the straw is long and stout and seems well adapted to our land. PETER JONES, Cranworth.

Editor Farmer's Advocate.

EXPENSES AND PROFITS OF FARMING.

SIR,—I think you did well to insert "Young Canadian's" letter, as both sides of the question are wanted to make any discussion fair or profitable. We get plenty of extravagant statements and instructions about farming matters from writers who know nothing about farming, except in theory. I think if some practical farmer who has been successful on land of average quality, would give a plain statement of his method of cropping, &c., and let us have his balance sheet of disbursements and receipts for, say the last three years, it would be much more beneficial to farmers than much of the matter we get in agricultural papers.

Port Robinson, Sep. 12th, 1871.

[We should be glad to receive any correspondence on this subject, giving full details of actual doings on the farm.—Ed.]

Editor Farmer's Advocate.

SIR,—I write to inform you regarding the yield of the several varieties of potatoes I obtained from you last spring. You sent me one of each variety mentioned below and their weight came as nearly as possible to three ounces each. I cut them into twelve sets and planted them in my chipyard, on the 8th of May. They were fenced in by a pile of cordwood, so they could not get the air as they ought. The following is the result of yield and the weight of the largest potatoes:

Variety.	Weight of Largest.		Yield.	
	oz.	lbs.	oz.	lbs.
Calicoes	4	3	00	
Breeze's King of Earlies	4½	3	03	
Willard Seedling	6½	3	04	
Excelsior	6	5	12	
Breeze's Prolific	6	6	08	
Early Rose	5½	8	07	
Chinax	10	8	10	
Goodrich	8½	12	07	
Harrison	10	13	03	
Breeze's No. 4	15½	13	15	

Mt. Forest, Sept. 5, 1871.

THE SECRET OF FARMING.

Editor Farmer's Advocate.

SIR,—Knowing that your columns are open to interesting matter for the farming community, I have in the present article to bring before your observation statistics belonging to what I call a "model farm." The farm consists of 20 acres, owned by Mr. Stephen Roberts, West Oxford, and as I visited the farm and noted the various articles that I shall enumerate below, the figures may be depended upon as being no exaggeration.

From 2½ acres of Diehl wheat, 90 bushels were threshed, and from five acres of Mediterranean, 150 bushels, both samples being of a very fine quality. 1¼ acres of land were planted with potatoes, consisting of the following varieties: Harrison, five or six hills to the bushel, the quality of which variety for table use is not of the very best; Duke of Wellington, a new variety, very good yielder, and a splendid table potato; Jackson Whites, up to the standard; Flukes, extra; Peachblows, late, but every prospect of an abundant crop; the St. John's, imported from Michigan, U. S., is a good potato and a good yielder; St. Amos, from Indiana, U. S., are a very large variety, 4 potatoes weighing 7½ lbs., and 2 others, 2 lbs. 3 oz., and 2 lbs. 2 oz., respectively; Early Rose, very good; Early Oxfords, ahead of the Rose; Early Meltons, splendid variety; Prince Alberts, an old variety and a very good yielder; Early Junes, first-class. This finishes the list of potatoes, which, collectively, are as fine a lot as one would wish to see.

There is one acre of corn, which will yield about 125 bushels in the ear. In the garden we find 50 bushels of Mangel Wurtzel, 150 bushels of carrots, and 2000 cabbages, of which at least 1500 will be fit for winter use. Three tons of hay were raised, and two horses, two cows, and three calves pastured. Nearly three acres are sown with Fall Wheat. A large number of buildings in good condition occupy not far short of an acre of ground. Any farmer should see by these statistics that there is a secret in farming. Land wants to be cultivated well, manured well and the very best kinds of seeds planted.

Yours,
W. H. GANE.
Ingersoll, Sept. 19th, 1871.

DIEHL WHEAT.

Editor Farmer's Advocate.

I am well satisfied with the Diehl wheat you sent me for seed last fall. My crop averaged 45 bushels to the acre, and there is a great rush for it now for seed. I have sold all I had to spare to my neighbors at \$1.25 per bushel. Yet I am inclined to think if the Boughton wheat is earlier, more hardy and gives as good a yield, it would be a preferable sort. As I have not tried it I shall be glad if you can send me a small sample for trial.

Yours, &c.,
JOHN LEBOUTILLIER.
Sidney township, Sept. 15, 1871.

RUSSIAN TEA MAKING.

Mr. W. Whyt, writes in a Land Journey from Asia to Europe:—At Kalgan we first made acquaintance with one of the greatest Russian institutions, the *samoovar*. It is a large sort of urn; in the centre is a tube into which coal or charcoal is introduced, which keeps it constantly boiling. The method of making and drinking tea is also agreeable. In a small teapot is a strong infusion, nearly essence of tea, is made; a small quantity of this is poured into tumblers, and guest adds water and sugar *ad libitum*. Whether it is that the tea in Russia is much better than we get in England or that the method of drinking it is better than ours, I know not; I can only say that I never tasted its equal before, and never hardly for years imbibed so much as I did during my short stay at Kalgan. The Russians say that the tea which make only a land voyage is much superior to that which passes over the sea, and I am inclined to their opinion; also that their method for drinking is the right one.

BRANTFORD.

A new swindle just introduced by American sharpers is mentioned by the Brantford *Express* as likely to have a good run for a time: A good looking stranger calls at a private residence and inquires if the family have a sewing machine. If answered in the affirmative and the style of the machine mentioned, the visitor represents that he is agent of the manufacturer, and has been sent out to see that their machines are working satisfactorily. The lady recollects that her machine does not work properly and mentions the fact to the "agent," who proceeds to make repairs. Presently he starts up, saying: "I have broken some piece of your machine, which I shall be obliged to send to the manufactory. It will cause you a little delay, but your machine will come back as good as new, so you will gain in the end." The lady assents, the machine goes to the manufactory, the "agent" disappears but never reappears.

Good wives are better conservators of the public peace and morality than policemen, magistrates, prisons, statutes, and all the terrors of the law. Let a man be thus home-anchored, and have an interest in a house and lot, and except he is radically bad, he becomes a self-appointed guardian of the peace and of public morals.

Seasonable.

THE WEATHER AND THE CROPS.

Up to this date, Sept. 21st, we have had but a very moderate amount of rain during the month and the pastures are as yet scarcely recovering from the effects of the recent long drouth. Much of the live stock is in nothing more than fair condition. The first frost of the season came in the night of Sept. 13th. This did not extend however to all parts of the country, being mostly confined to the more northerly counties. On the night of the 17th a more severe frost came, extending to the lakes and putting a stop to the growth of all tender vegetation. Root crops cover the ground well, and are generally very free from weeds, but as yet need a good deal of rain to swell the bulbs. Winter wheat sowing commenced early, and in some fields the plant is already well up, but rain is needed more abundantly, and those who have not sown, even to the first week in October, can venture to sow with fair prospects of success. Potatoes are being dug, and indications show a large crop, with a general tendency to crowd all into the market at once. Those who sold last fall did better than those who held over till spring, but this season the cases are likely to be reversed, and those who have good facilities for storing potatoes entirely safe from frost and where they can be easily got at for marketing in the winter will do best to hold on. Grain is coming in pretty freely, and brings fair prices, with a tendency rather upwards than downwards. Still the grain crops are so heavy this year that a good deal must be sold and shipped before any effective rise in prices can take place. It is well for farmers to sell a good proportion of their produce early at anything like fair prices, and then they can afford to hold the balance for a rise. Hay will command good prices all along till Spring, but if roots yield well there is enough straw and cornstalks, if well saved, to keep the stock thriftilly through till Spring.

CROPS, ETC., IN HOWICK.

Editor Farmer's Advocate.

Please find P. O. order for eleven dollars and sixty cents (\$11.60), for seeds which you sent me in May for which accept my thanks. The corn was good, but has not grown because of the dry season, the turnip seed was good, it has grown nicely but is nearly at a stand still now for want of rain. The potatoes in this section are rather a poor crop, there was about three quarters of an average. Spring wheat is going to be better than we expected it four weeks ago, it will be light, but pretty good, not much ridge in it. Barley is a very good crop. Fall wheat is an excellent crop except where it has been frozen. Some have as high as fifty bushels per acre. I had fifteen acres Soules and Diehl, the Soules turned out 39 bushels, the Diehl 34 bushels per acre. Upon the whole we will have a better yield than we have had for a few years. A good many in this locality are going into cheese making. Mr. Robert McKay has started a factory this season, and has a young lady, Miss Ballantine, of Downie, to make his cheese, who has given great satisfaction to Mr. McKay and to his patrons, so good is the quality. He has not been able to ship any cheese this season, there was such a demand from the towns and villages in Huron and Bruce. His cheese are pronounced best quality wherever they go. I have started a dairy and have got along well. The Advocate is much liked in this section. I tried the receipt given, I think in May number, for whitewashing, it is splendid. I must confess that one receipt is worth the price of the paper for the whole year. Hoping that many more names may be added to your list of subscribers for next year. I remain,
JOSEPH ANDERSON.
Howick, Aug. 26th, 1871.

TO TAN SQUIRREL SKINS.

Place the hide on a smooth, round sided slab, made for the purpose, with two legs in one end, and the other end on the ground; drive a nail in the upper end to hold the skin from slipping while fleshing. Scrape off all the flesh with a blunt knife, being careful not to tear the hide. Then take the brains of the squirrel and work them thoroughly into the skin; this renders the skin pliable. Then to preserve the skin from the ravages of the insects, scatter on some powdered alum and saltpetre. Let dry; then stretch and work it until as pliable as may be desired. The above is acknowledged to be a very good recipe for all kinds of fur, although there may be better ones in use.—*Cor. Rural New Yorker.*

Entomological.

THE COLORADO POTATO BEETLE.

After all the hue and cry made about this pest it does not seem that its ravages have amounted to much. Considerable public money has been spent in sending out sundry parties as commissioners to investigate its doings and expensive reports have been sent out from the Government printing press as to what it is and what ought to be done to counteract its doings. Considerable Paris green and other nostrums have been sold and used by confiding farmers with the idea that they could stop the speed of the pest. Like all other insect pests it must and will have its day, and then disappear as suddenly and mysteriously as it came. Last year it appeared in Michigan, and died were the portents of its doing this year; but we learn from the *Michigan Farmer* that the damage done this year is of little account, and that close investigation has shown that the Colorado potato beetle has so numerous a host of insect enemies, in the shape of horn bugs, lady bugs, and the whole host of carnivorous beetles, that it is making no headway anywhere. Judging from the low price running for potatoes this fall in places where it appeared this and last year; it cannot have done much damage. It has been recommended to burn the potato tops as soon as ripe, in those crops infested with this pest. That would, perhaps, destroy some of the eggs laid by the latest brood from which the spring brood may be expected. Not much is yet reliably known as to its habits, but it is thought some of the latest hatched brood hibernate over winter near the surface, under clods, stones, clufs, &c. These might be destroyed by plowing shallow very late in the fall.

Editor Farmer's Advocate.

POTATO BUG AND MANURE.

Sir,—My farm is situated alongside that of my brothers; both of us planted potatoes, on fields only separated by a common rail fence. He did not manure his field, while I gave mine about thirty loads to the acre, collected from the horse and cow stables. The bug appeared early on his crop, and while on his side of the fence they were congregated in thousands, there was not one to be seen in mine, neither did they ever make their appearance at all on my side. Can any of your readers report similar experience, and can the manure account for the absence of the bug in my field.

Glenworth, Sept. 2, 1871.

PROTECTION OF CABBAGE AGAINST WORMS.

To procure an efficient remedy against the ravages of the cabbage worm is a desideratum long needed by our vegetable gardeners and farmers. Mr. Thos. S. Trigg, of Montgomery county, a gentleman of nice observations, assures us that stale soap suds applied to the heads of cabbage will drive away and keep away all worms. There is something about the soap suds especially obnoxious to the worms, and a few applications of it will protect the cabbage from their ravages. There is another advantage in the use of soap suds—it fertilizes the land and induces a more vigorous growth of the plant. We hope every farmer who reads this will give it a trial and report on its efficiency.—*Nashville Union.*

A great American dessert—Fruit. That's plain enough.

A business that is always picking up—A rag gatherer.

If "might makes right," did it ever make a wheel write?

The grass hoppers, having been a long time a plague to man, now have a plague of their own. It is a sort of reduced flea. They have not yet been interviewed as to how they like it.

An ingenious baker accounts for the high price of his loaves by saying that he has it on the authority of an eminent naturalist that the dough belongs to the dear tribe.

Horticultural.

PLANTING TREES IN THE FALL.

We are beginning to find that the larger and hardier kinds of fruit trees, as well as many ornamental ones, can be made to succeed better by fall planting—if well done—than when planted in spring. The constantly recurring spring drouths tell heavily on spring planted trees, and the losses this year will be heavy.

Fall planted trees, if on land well prepared and surface drained, will take hold of the soil and make an early start in spring, and thus be ready to battle against the dry weather when it comes. It has been discovered that all the small fibres in the roots die out when a tree is transplanted, no matter at what time. In fall planted trees, the new roots will commence to grow the same fall that they are planted, if there is enough heat; and if not, they will start with the first warmth of spring. It is a good plan to put some long, but not strong manure round the roots, to remain as a mulch till spring.

WINTER MULCHING STRAWBERRIES

If those who have plantations of strawberries would mulch them late in the fall before severe frost comes, by laying over the rows of plants a good coat of straw or dry cornstalks three or four inches deep, they would insure the plants being protected from the severity of our winter. It is not so much the actual cold as the variations of temperature that winter kills. Exposure to the rays of the sun on mild days in winter and early spring, followed afterwards by cold snaps, is what most injures the crowns of the strawberry plants when exposed, thus destroying the embryo blossoms, even when the plant survives. All hardy and half hardy shrubs and perennial flowering plants are also greatly benefited by the mulching of their roots during winter, either with straw or strawy manure or dead leaves.

ORCHARD QUESTIONS.

A correspondent writes, asking how to improve an old orchard of natural fruit, the trees of which, by pruning away the lower branches from time to time, have become so tall as to render it difficult to gather the fruit, which, when gathered, is small and of little value. The trees were planted in 1824, among stumps and roots, at distances of about two rods each, covering some six acres. Soil, dry clay and gravel. He asks if he can cut the trees down and raise a sprout from the root; or if a sprout can be found growing from the side of a tree four or five feet from the ground, should he cut away the main body just above the sprout and then graft the sprout. He says he saw in the Rural New Yorker an account of a man renewing his orchard twice in his life-time, but he has forgotten how.

Our advice in the premises is to cultivate the ground thoroughly by plowing and manuring among the old trees, and then to plant two-year-old thrifty trees of approved valuable sorts, at equal distance among the old orchard. Leave the old trees to bear what they will for, say three years, at which time the young trees will produce from half a peck to half a bushel each. Then cut away the old trees, root and branch. Removing old worthless native seedlings by means of cutting back, waiting for new shoots, and then engrafting, can be done; but it is a far more expensive practice and not as satisfactory in the end as planting anew.

We have no recollection of the account of the man twice renewing his orchard in his life-time, which you say was published in the Rural; but we think the man who having once acquired a good orchard, permits it to become diseased and valueless, so as to again require a systematic course of renewal, must be a careless, neglectful cultivator, and not the kind of man to devote the labor and care nec-

cessary to such renewal; or else he must have been a man like Methuselah, of so long a life as to embrace two generations of apple trees, each of which may be counted at, say one hundred years.

The man who owns an orchard, the limbs of which have become moss-grown with dead branches, and thickened up with watersprouts, can of course improve and renew it; and the time to attend to such work is just as soon as the frost is fairly out of the ground and the sap commences to circulate freely. Go to work then with pruning saw and knife, cut away all dead branches, shorten all long, ungainly over-reaching limbs, cut away all the water shoots except where one or more may be wanted to fill up the form of the tree. Cover all the wounds made by pruning with a painting of gum shellac. Scrape away all the old dead bark and moss, and wash the whole tree with strong lye made from wood ashes. Manure the ground well and plow, turning the first furrow light, say three inches deep, towards the tree; then let the plow run deeper and deeper as you get away from the tree, until the last furrows are at least ten inches deep. Sow corn or peas broadcast, harrow them in, and when they have grown one and a half feet high plow them under with a furrow three inches deep, turning away from the trees. Spread on ten loads of well rotted manure to the acre and one and a half bushels of plaster, (gypsum,) harrow thoroughly and sow turnips. In the fall, when the turnips are fit to pull, pull the best and plow under the balance, turning the furrow towards the trees. From time to time during the month of June the trees should be watched, and any sprouts that appear where not wanted should be rubbed away. —Rural New Yorker.

BURYING TREES IN THE FALL.

J. B. Richardson, of Sheboygan Falls, Wis., furnishes the Herald of that place, the following article on a question which has already been somewhat discussed in our columns:

The question is often asked of us "do you approve of transplanting fruit trees in the fall?" We say positively, no, not in this section of the country. In the Middle States it will do, but not in a bleak, cold, snowless country like this. But we do approve of taking up all kinds of deciduous trees (intended for spring planting) in the fall and burying them for the winter, for various reasons.

All half hardy, and even the most hardy, are more or less injured where left standing in the nursery over winter, by the many severe changes from warm to cold—sometimes half frozen to death; such trees taken from the nursery in the spring and planted, invariably half of them die or become sick, while those taken in the fall, while perfectly sound, and buried, and planted in the spring, will every one grow and make a good growth. We speak from large experience, having practiced burying trees of many sorts for at least twenty years, and the trial in all cases has proved most satisfactory.

It is surprising to us that tree planters are so slow in adopting this practice, that so few obtain their trees from the nurseries in the fall, rather than to defer it till spring. Certainly there is more time to make their selection and to prepare the soil for an orchard in the fall, and get the trees upon the ground ready at the earliest opportunity to plant them.

Do not wait for an agent to come round, but go or send to the nursery, get your trees; two year old is the best age, they cost less and you can get more roots according to their size and they invariably make the best formed trees for an orchard in this climate; bring them home, select a dry spot in the garden or orchard plot, and for the first bundle of trees open a trench crosswise the intended mound, lay down and single out the trees in this cross trench (just the roots) and let the tops lay on the solid ground; then lay on a thin stick or lath, then cover this layer half under with fine earth, press down, and by doing this you will have opened another cross trench for the next variety or bundle. Lay down in the same manner, fill in with fine earth—same as before and so on until all are in, then dig a trench all around the trees and cover so that the roots will be under two feet and the tops six inches; the main point in covering is to keep the tops from the sun.

If the covering is with clean fine earth, and well packed, so there shall be no air holes, they are perfectly safe. Take all weeds and other rubbish entirely away, so there can be no danger of mice getting in, and your trees will come out as sound as when put in.

All deciduous trees may be treated in the same manner, also grapes, raspberries, gooseberries, blackberries, currants, &c. It will more than pay the extra labor, for that is your insurance, and every plant you set is sound and uninjured by the severe changes during winter. This is not my advice alone, but you have it from every experienced nurseryman and orchardist in the Western States.

CALIFORNIA ENCOURAGING TREE PLANTING.

The Santi Clara, Cal., Agricultural Society offers a premium of \$10 for the best one hundred fruit trees of mixed varieties, planted out within the last year in one body, or in different places on the same farm or plantation; for the best five hundred, \$20; for the best one hundred, single variety, \$5.

J. J. Thomas says a very common error in the culture of honey locust hedges is in not cutting them back enough. Close pruning is necessary to overcome its natural tendency to an upright and comparatively slender growth. He thinks such a hedge should be cut very near the surface, the second time three inches higher, again four or five inches higher.

Another Humbug.—The fruit-growers of the country are about to be treated to another humbug, originating of course in New York, and which is stated by the following notice by some of the Eastern press. Of course we do not think any reader will be foolish enough to invest in any such transparent swindle: "A remarkable patent has been applied for, and will be introduced to the fruit-growing world in a few months, which will astonish horticulturists. It is a discovery of an application by which the pear or apple tree may be thrown into bearing at a very early age, and kept loaded steadily, year after year. The principle by which this result is produced, we are not at liberty to make known, but that it is correct we have the best of evidence. There are now a large number of trees in full bloom in the pear and apple department, which never showed the sign of a flower till this application was made. To prove the correctness of the principle, any tree in the pear or apple line, of four or five years of age or upwards, which has never blossomed, can be made to show on one-half of the head of the tree, while none appear on the other half; the proof of the efficacy of this treatment is on hand. The application is not in the slightest degree injurious to the tree, as its continued state of high health, under the yearly yield of large crops of fruit, demonstrates. It is done instantly, and costs nothing except the cost of the patent right."

Saving Flower Seed.—It is not too late to say, generally that a very good way to save flower seeds is to take bottles of sufficient size, label them with the names of the different flowers on the premises, the seeds of which it is desired to save, and then take one at a time, pick your seeds, put in the bottle, and cork up. Here you have them safe and sound until sowing time comes round. No danger from mice or insects, and if there should be any insects among, or in the seed, they will be killed if the air is wholly excluded.—Germantown Telegraph.

COLORS AND DYES.

How many of our readers are aware that a great variety of colors and dyes can readily be obtained from common plants? A German writer informs us that this is the case, the method consisting principally in boiling them in water so as to produce a strong decoction. He says: "The well-known huckleberry or blueberry, when boiled down, with the addition of a little alum and a solution of copperas, will develop an excellent blue color. The same treatment, with a solution of nutgalls, produces a clean, dark brown tint; while with alum, verdigris, and sal-ammoniac, various shades of purple and red can be obtained. The fruit of the elder will also produce a blue color when treated with alum. The pivot boiled in a solution of salt will furnish an excellent red color, while the overripe berries yield a scarlet red. The seeds of the common burning-bush, when treated with sal-ammoniac, produce a beautiful purple red; while the juice of the currant, pressed out and mixed with a solution of alum, will furnish a bright red color. The bark treated in the same way produces a brown. Yellow can be obtained from the bark of the apple tree, the box, the ash, the buckthorn, the poplar, elm, etc., when boiled in water and treated with alum. A lively green is furnished by the broom corn, and brownish-green by the gentian."—Ex.

The Apiary.

OLD-TIME CUSTOMS.

Scientific "beeologists" have in general terms denounced the old time-honored custom of ringing bells, blowing horns, rattling old pans, &c., to get swarming bees to settle. They have assigned it a place alongside of the superstitious peculiarities of old fogies. And I am myself somewhat skeptical, having but little faith in the custom. Theory is one thing, and practical experience another. The mere theorist often sneers the loudest at supposed absurdities. I have a kind of experimental nature about me, so much so that I am sometimes found trying things that look superstitious. Consequently I have been simple enough to try the old tin-pan expedient of inviting bees to come down and tarry with me. The first attempt was in this wise:—One day while in my garden at work, my attention was attracted by a large swarm of bees, coming from some unknown quarter, and passing immediately over my head. Having been "on the brain," I immediately set out in hot pursuit, and in a very unceremonious manner beat double quick as I ran. After a hot race I came up with the fugitives, and if ever a tin pan made music that one did. No sooner did I get immediately under the swarm, which was making its way in a bee line across an old field for a skirt of woods, than I discovered they began to scatter and seemingly became confused; many came down and swarmed round me, and soon I had the satisfaction of seeing them hanging in a beautiful cluster on the projecting root of an old chestnut tree that had been blown down. I soon had them stowed away in my driving box, by which means I carried them home, put them in a patent hive, and they have done remarkably well.

The next season I had timely notice of a swarm coming directly toward my house.—When I first saw them they were above the tops of the tall forest trees, seemingly bent on going somewhere. As they came up I was ready with the tin pan, and saluted them as best I knew how. A few minutes after asking them to stop, they did so, settling on a large tree near by. The tree was three feet in diameter, the day was very hot, but there being a swarm of bees up that tree, I went for it.—Luckily it fell in such a manner as not to kill many of the bees. I soon had them in a hive and at work for me.

Now, if there is nothing but superstition in that custom, it is a little singular that those fugitive swarms should come down just as they did. May it not be true that the queen, or those bees that lead swarms, make a peculiar noise, as a signal for the rest to follow? Now, if that sound be drowned by some foreign noise, it follows that the swarm becomes confused and scattered, so that the queen settles to gather her disorganized forces. I should like to hear the subject ventilated.—Cor. Bee-Keep. Jour.

Feeding Bees in September.—Before the close of this month says the Bee-Keeper's Journal, the bee pasturing in some localities begins to fail. If there are any weak colonies, then is the time to feed, unite, or strengthen them from other hives. If they are to be fed, one pound of honey given them now is worth more to them than two or three, after the weather gets colder. We have had less experience than others in feeding, yet by way of experiment, we kept colonies building comb until November, by feeding diluted honey and sugar syrup. Care must be taken not to feed too much at a time, and to examine lest they store it too near the center of the hive, where they should cluster. If they put it here, it is time to stop supplies for a while.

REMEDY FOR SPRAINS.

I send you a recipe for the cure of sprains. It is a liniment and composed of the following ingredients—Oil stone, 1 oz.; oil of spike, 1 oz.; oil seneca, 1 oz.; sp. camphor, 1 oz. Mix well and rub the part sprained well with liniment. Pour some on a piece of flannel and rap it carefully around the sprain. It has been thoroughly tested, and is a sure cure for all sprains of the ankle, wrist or any like place. It is also good for horses and cattle. The druggists sometimes say the different oils composing it are one and the same, but be assured they are not and give a fair trial.—D. T. R., Pittsburg Pa.

A Great Work.—Many a discouraged mother folds her tired hands at night, and feels as if she had, after all done nothing, although she has not spent an idle moment since she rose. Is it nothing that your little helpless children have had some one to come to with all their childish griefs and joys? Is it nothing that your husband feels when he is away to his business, because your careful hand directs everything at home? Is it nothing when his business is over, that he the blessed refuge of home, which you have that day done your best to brighten and refine? O, weary, faithful mother, you little know your power when you say, "I have done nothing." There is a book in which a fairer record than this is written over against your name.

Implements.

DIFFERENT MODES OF DRAINING.

Tile, stone, brush and wood in different ways have been used—under certain conditions either may be useful—but unquestionably tile is the best of all and no other ought to be used where tiles can be obtained. A well burned tile is indestructible by any action to which it is subjected in the soil, and will withstand the slow trickling of pure water through it as long as water continues to run. There is much more danger that the action of the elements will wash away the surface of a farm than the water flowing through good tile drains will wear them out. The only chance of danger lies in imperfect construction.

With such a knowledge of the subject as any farmer can acquire, and a judicious outlay of money, it is easy to drain lands in such a way that no further care is required than to see that the outlets remain unobstructed. When drains are so constructed as to need no repair, and when it is certain that they will last as long as the land lasts, all that is further necessary is to charge the land, as a part of its annual expenses, like rent or taxes, a sum that will cover the interest on the cost of the work, and there is an end of it. The benefit is permanent.

In many localities where there is suitable clay and no manufacturers of tile, the

The size of the tiles used in draining the park grounds in Buffalo, New York, were 1 1/2 inches. The plots of ground were large, the drains thirty-five feet apart, three feet in depth, and the drainage so perfect that the grounds are dry immediately after heavy rains.

The tiles used in draining Central Park, New York, were two inch, and the drains forty feet apart. The drainage is thorough and the lawns in this park are a marvel of freshness and beauty during the severest droughts.

The present price of tiles in Albany, N. Y., varies from \$10 to \$12 per 1,000 feet. At the latter price the drains being 42 feet apart, requiring 63 rods of drain to the acre, the tile for draining one acre would cost \$12.46. The cost then of draining one acre may be estimated as follows:

Tiles for 63 rods, at \$12 per 1,000 feet, - - -	\$12.46
Cutting 63 rods of ditches with Carter's Ditcher, the maximum Price would be 5 cts. per rod - - -	3 15
Laying tile and finishing, 5 cts per rod - - -	3 15
	\$18 76

But as tile of the size named in the above estimate can be procured in many parts of Canada, at from \$5 to \$7 per 1,000, the cost would consequently be reduced one-third or to from \$12 to \$14 per acre instead of \$18.76.

The above expenditures ought to drain any ordinary clay lands. The increase in the first year's crop, of whatever kind it might be, according to all past experience,

work occupies the time; and if, finally, a day comes when they may be attacked, they offer ten times the resistance they would have done a week earlier. The operations of the farm are carried on more expensively than if the ability to work constantly allowed a smaller force to be employed. The crops which give such doubtful promise, require the same cultivation as though they were certain to be remunerative, and the work can be done only with increased labor, because of the bad condition of the soil.

In the cultivation of retentive soils, drainage is the key to all improvement, and its advantage is to be measured not simply by the effect which it directly produces in increasing production, but, in still greater degree, by the extent to which it prepares the way for the successful application of improved processes, makes the farmer independent of weather and season, and offers freer scope to intelligence in the direction of affairs.

Now that population and wealth are increasing, and becoming more valuable, a need of a better system of farming is felt such as will render cold, wet, clayey, retentive soils, porous, friable and productive, and avoid the risk of the failure of crops by reason of short, cold, unfavorable seasons. Such a system as will enable the farmer to reclaim the thousands of acres of our swamp lands that have hitherto engendered nothing but musketoes, reptiles, fevers and agues, and make them teem with vegetation.

The principal parts are an iron wheel four feet in diameter, eight inches wide, with two flanges of five inches in width projecting from its edges.

Between the flanges on the periphery of the wheel, are cogs corresponding in length to the width of the flanges, and arranged in couplets at distances between twelve inches apart around the wheel. In the rear and closely to the bottom of the wheel, is a spade or cutter, set in such a manner as to cut the earth and hold it within the flanges; as the wheel revolves the earth is caught by the cogs and carried to the top where the cogs pass through a comb which entirely removes the earth and discharges it through a bright steel spout which puts it at a convenient distance from the trench, to be replaced when required. The whole is connected with a car on which stands a driver, who manages the machine and regulates the cutter with the same ease that a reaper or mower is operated. The machine is drawn forward and backward in the same track, cutting from two to five inches each time until the depth required is reached.

FARM IMPLEMENTS.

Plows naturally come first of the list. In a good plow we find, first, lightness of draught; next, strength equal throughout the structure; and third, facility of repair; and, indeed, the last two rules apply equally in the selection of every implement used in agriculture. We can confidently recommend steel plows as stronger, lighter, and, in the end, cheaper. We do not think it necessary to debate the oft disputed point as to the superiority of steel over iron plows as regards the excellence of work accomplished, and the first two qualities, in our eyes, fully establishes their superiority. Choose a plow that has a good clevis or hake, as it is often termed, one that will allow the speedy alteration of the line of draught higher or lower, to the right or to the left. In all well-made plows this is made of wrought iron. Carefully eschew cast iron at this point, as sure to give trouble sometime. If you use more than one plow, buy them all alike, that you may have less trouble ordering points and other wearing parts or in cases of breakage you may be able to use the corresponding part of another.

Drags should be selected with steel teeth, and are preferable when they (the teeth) fasten in the beam with a nut. If you have the opportunity to try your drag before purchasing, draw it steadily over a dusty road, and see that every tooth makes an equi-distant mark. Heavy drags and cultivators are better constructed with an iron frame, and those which will allow the teeth or tines to be shifted, that they may be set closer together or wider apart, as the exigencies of the case require, are much to be preferred.

On many farms we are glad to find a roller is now considered essential. In the construction of these implements the manufacturers on the other side of the Atlantic are yet far ahead of us, and we believe any manufacturer who would bring out a well-constructed iron roller, light, yet strong enough to bear well weighting when necessary, would find a ready sale for it. A cast-iron hollow cylinder made in two or three sections for convenience of turning, running on an iron axle, with a frame of hammered iron, light and well braced, would be weatherproof, cheap, and not easily broken or worn out.

A drill for sowing grain should be selected with extra caution. Here particularly avoid cast iron, these being implements often used in frosty spring mornings, when a jolt over a landfast stone will snap a casting and spoil your day's work. See that the arrangements for altering the quantity of seed are simple and correct. The instructions for setting the drill for depositing any given quantity of seed are generally faulty and compiled inaccurately. When at work, if one of the coulters comes in contact with a stone, something must give way, so observe what is contrived to prevent breakage. The drill-box is gener-

plan has been adopted among farmers who wish to get a tile yard established in their locality, to subscribe a certain amount and then advertise for a tile-maker, offering, as an inducement, to take the amount of their subscriptions in the first tile manufactured, thus insuring the manufacturer a sure and speedy market for his first labor. This so far has been found a prompt and effectual course for bringing tile makers where wanted.

DEPTH OF DRAINS.

They must be below the reach of the subsoil plow, for in the revolution which drains will work in the process of cultivating the soil, the subsoil plow will follow in its path. They must go beneath the reach of the frost, so that the water in the pipes shall not freeze. They must also be deep enough to remove the water in the soil below the reach of the roots of plants. A depth of from two and a half to three feet will accomplish all these purposes.

COST OF DRAINING

Heretofore the largest part of the cost of draining has been in the cutting of the ditches by the slow process of the pick and spade. With the aid of Carter's ditcher, they can be cut for five cents per rod, and the cost of laying the tile and "finishing" should not exceed this amount. The cost of tile, if tiles are used, will vary with the size, and the cost per acre, with the frequency of the drains.

would refund this cost, leaving at the end of the first year, the like amount to be added to the value of the soil. The minimum income on this would be 33 per cent. annually.

Draining makes the farmer, to a great extent, master of his vocation. With a sloppy, drenched, cold, uncongenial soil, which is saturated with every rain, and takes days, and even weeks, to become sufficiently dry to work upon, his efforts are continually baffled by unfavorable weather, at those times when it is most important that his work proceed without interruption. Weeks are lost, at a season when they are all too short for the work to be done. The ground must be hurriedly, and imperfectly prepared, and the seed is put in too late, often to rot in the over-soaked soil, requiring the field to be planted again at a time which makes it extremely doubtful whether the crop will ripen before the frost destroys it.

The necessary summer cultivation, between the rows, has to be done as the weather permits; and much more of it is required because of the baking of the ground. The whole life of a farmer, in fact, becomes a constant struggle with nature, and he fights always at a disadvantage. What he does by the work of six days, is mainly undone by a single night's storm. Weeds grow apace, and the land is too wet to admit of their being exterminated. By the time that it is dry enough, other pressing

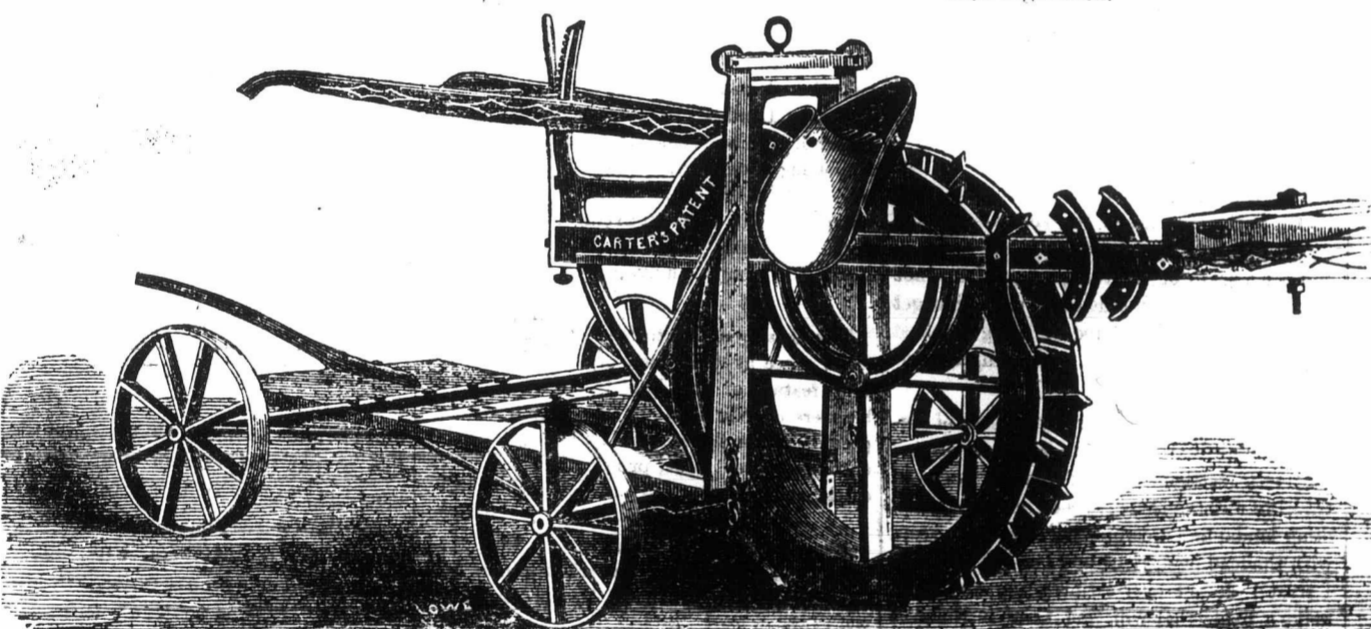
Appreciating this need, Mr. Henry Carter, a Canadian mechanic, has spent years of patient thought, labor and experiment in efforts to produce a machine that will facilitate and cheapen the process of draining, relieve it of the slow, hard operation of the pick and spade, and transfer it to the stronger muscles of the horse, as the processes of reaping and mowing have been, and reduce the cost and labor to an almost nominal sum.

This machine has been rendered as near perfect as it seems possible to make it, and it is now offered to the public at such a price as will enable most farmers to purchase. It is simple in construction, strong, easily worked and not liable to get out of order.

With proper management, a team of two men and four horses, will cut a ditch from 1,000 to 1,500 yards long, 3 feet deep, 14 inches wide at top and 10 at bottom, in ten hours, according to the character of the soil.

This machine was first introduced to the public in 1869, and has in all cases in which it has been tried, fulfilled all the conditions of a first class ditcher. In every instance where it has been brought into competition with any other machine, it has proved itself far superior and has taken all the first prizes for such a machine, both in the United States and Canada.

The illustration hereto annexed will give a general idea of its construction.



Apiary.

... have in general terms...
... And I am myself...
... They have as...
... of the superstitious...
... but little faith in...
... and practical...
... the mere theorist often...
... proposed absurdities...
... I...
... nature about me...
... sometimes found trying...
... tious. Consequently I...
... to try the old tim-pan...
... es to come down and...
... first attempt was in this...
... in my garden at work...
... ed by a large swarm of...
... unknown quarter, and...
... er my head...
... Having...
... immediately set out in...
... y unceremonious man-...
... I ran. After a hot...
... fugitives, and if ever...
... at one did. No sooner...
... under the swarm, which...
... a bee line across an old...
... ds. than I discovered...
... and seemingly became...
... own and swarmed round...
... satisfaction of seeing...
... ful cluster on the pro-...
... chestnut tree that had...
... soon had them stowed...
... by which means I earn...
... in a patent hive, and...
... dly well.

... ad timely notice of a...
... toward my house—...
... they were above the...
... ces, seemingly bent on...
... they came up I was...
... and saluted them as...
... w minutes after asking...
... so, settling on a large...
... was three feet in diam-...
... hot, but there being a...
... tree, I went for it—...
... manner as not to kill...
... on had them in a hive

... ng but superstition in...
... the singular that those...
... come down just as they...
... ue that the queen, or...
... arms, make a peculiar...
... rest to follow? Now...
... by some foreign noise...
... becomes confused and...
... en settles to gather her...
... should like to hear the...
... Bee-Keep. Jour.

... ber.—Before the close...
... Bee-Keeper's Journal...
... localities begins to fail...
... onies, then is the time...
... then them from other...
... fed, one pound of hon-...
... rth more to them than...
... wea'her gets colder...
... rience than others in...
... experiment, we kept col-...
... November, by feeding...
... sirup. Care must be...
... ch at a time, and to ex-...
... near the center of...
... ould cluster. If they...
... stop supplies for a

... R SPRAINS.
... r the cure of sprains...
... posed of the following...
... oz.; oil of spike, 1 oz.;...
... phor, 1/2 oz. Mix well...
... ed well with liniment...
... of flannel and rap it...
... sprain. It has been...
... s a sure cure for all...
... st or any like place...
... eses and cattle. The...
... the different oils come...
... e same, but be assured...
... fair trial.—D. T. R.,

... y a discouraged mother...
... night, and feels as if...
... nothing, although she...
... oment since she rose...
... little helpless children...
... ome to with all their...
... Is it nothing that your...
... is away to his business...
... d directs everything at...
... n his business is over...
... e of home, which you...
... best to brighten, and...
... ful mother, you little...
... you say "I have done...
... k in which a fairer re-...
... ven over against your

ally made very light. See that the covers are well secured with sheet-iron, or something to strengthen them, also observe whether the box is large enough to carry sufficient seed to go up and down a long field when depositing a heavy seeding, say four bushels per acre.

It is a great advantage to a purchaser where wood-work is varnished instead of being painted; he then can judge better of the quality of the wood and excellence of the workmanship, but all such implements should be well painted soon after being bought, as the varnish will last very little time when exposed to the weather.

On a small farm a corn cultivator should be selected which can be altered to a shovel plow, or adapted with wings, etc., for various cultivating operations, and here again steel fittings instead of iron will give much greater satisfaction, and repay amply the additional outlay.

In the selection of a mower, reaper, etc., a wide field is opened for choice. Most machines are good, and most have some one point of superiority. On all farms growing less than fifty acres of hay and one hundred acres of grain we recommend a combined machine, provided that machine be also a "self-raker." Bear in mind that in machinery simplicity is the parent of efficiency. The fewer cog-wheels, etc., used to gain the desired motion, the better. The bearings should be long and carefully fitted. A nicely finished reaper will generally warrant you in believing that all shafts and motions are properly turned and accurately adjusted.—*Hearth and Home.*

Poultry Department.

POULTRY BREEDING.

With the present largely increased demand for eggs and dressed poultry in all the leading markets, and that, too, at highly remunerative prices, our farmers and their wives and daughters should endeavor to pay a good deal of attention to the breeding of Poultry. They are really the most profitable stock that can be bred on a farm in a small way. They cost little to keep, beyond the trouble of looking after them. They find their own food for one half of the year, greatly assisting the farmer to keep down the numerous insect enemies of his crops. For the other half they can mostly live, and thrive well too, on inferior grain, scraps from the kitchen, and many things that would otherwise be thrown away. But to be made profitable, the poultry must have some good qualities, and more attention should be given to preparing them for market, and marketing them at the proper season. Do not bring them in to sell when there is little flesh on them. Do not crowd them all into market at one season of the year, as is too much the case. Above all, endeavor to keep improving your stock. If you have common barn door fowls, cross them with thoroughbred males of some really desirable improved variety. If eggs are the object, work into the laying varieties, such as the Black Spanish, Hamburgs or Brahmans. If early and fine birds that readily fatten for market, are wanted, go into the Dorkings, Games or Cochins. Feed well, and give warm shelter in winter, if you want early eggs. Give your attention to the matter, and you will succeed with anything you undertake. There is no need to pay extravagant prices for such birds as you may need to commence improving your Stock with. If you write us what you want, we will procure them from those who are honest and reliable breeders, and reasonable in their prices.

Editor Farmer's Advocate.

AN ENGLISH WAY OF KEEPING HENS.

Sir,—I am a young Englishman, have been out in this country about sixteen months, and like it very well—although the style of farming is rather different from the old country. I have been a constant reader of your valuable paper, and as I have received a great deal of good sound instruction from it, I thought I would contribute a little. Therefore, I will tell you of a way my father in the old country has got of keeping hens. It is a notion he got

from the Paris Exposition. First, I must tell you, the farm he is on (a rented one) is about three hundred acres, equally divided between pasture and arable land. He keeps about two hundred hens. The plan is this:—He has three movable hen-coops—one large size, about eighteen by ten feet. This holds about one hundred hens. It is placed on four wheels, so that two horses can easily move it from one field to another. It is fitted up inside with perches and nests. The other two are about half the size, mounted on two wheels, and accommodate 50 hens each. The wheels are about the size of those on a two-horse cultivator, so that the coops do not stand very high from the ground. The hens need very little feed except in the depth of winter, and they will not stray far from the coop. They are very useful in a field when it is being ploughed, as they will follow the plough, picking up the grubs, worms, and such like things. And as soon as a field of grain is drawn in, you can take in the hens, and they will pick up all the grain that is shelled out. I don't know whether hens would eat the Colorado Potato Bug or not, but if they would there would be an easy way of getting rid of the pests—just by setting your hen coop in the middle of the potato field. The hens do first rate, and I think they like it better than being round the barn yard. I believe the 200 hens father keeps averaged about 1000 eggs a week for the summer months last year, and the storekeeper that bought them said they weighed more than any other eggs he got. Altogether I think it is the most economical way for a farmer to keep hens. There is also a saving in the manure, which is not wasted, as it most likely would be if the hens were kept round the barn yard. I believe that is all I have to say—if you think it is of any use, insert it, if not, I suppose you have a waste paper basket handy.

Yours truly, J. G. BURMAN.
Norwichville, August, 1871.

Personal and Editorial.

With this number of the FARMER'S ADVOCATE, I shall enter upon my editorial duties. Owing to the lateness of the time at which I commence, only a week before going to press, and not a scrap of anything ready, I can not say all I would wish nor do much more than get the paper into proper shape by using the best materials I can find in the few leading agricultural papers now at hand.

From a long and extensive experience of Agricultural life, dating back to the early days of Canadian settlement, an extensive range of travel to observe the modes of husbandry in other lands; and a connection of over ten years with the leading agricultural press of America, I trust I do not over-estimate my ability to make a paper that will find favor in the eyes of the agricultural community, and well deserve their most generous support. Agriculture need no longer be looked upon as a mere life of drudgery and hardship as it once was. Those days have passed. It is now fast rising to the dignity of a profession. Men of ability and culture are fast crowding into its ranks, sick of the dark and crabbed paths and petty jealousies of the artificial world outside of nature. Education is breaking the barriers of ignorance. Science, intelligence, and capacity to observe and reason, are making agriculture become the noblest pursuit of man.

J. MACKELCAN.

THE WESTERN FAIR.

Judging from the entries made, the Western Fair this year will be ahead of last. We are inclined to think, however, that it would have been better to have arranged matters so that it should not come off in the same week as the Provincial Fair. Several prominent stock-breeders would have exhibited at both Shows had they not come together.

Should the weather prove dry and fine, there will be a very large attendance of the better class of farmers of the western portion of Ontario.

The attempt to get up a Central Fair at Toronto, in the Grounds of the Crystal Palace, on Sept. 19th-21st, has proved a miserable failure. There were but two Short Horns, a few Ayrshires and Galloways, 26 Sheep, about 50 Pigs, and the balance made up of poultry, fruit,

and vegetables. Even of horses there were but very few, although special inducements were offered to bring out the fast horses driven in the city.

MODEL FARM.

We understand that the Commissioner of Agriculture has decided to purchase 600 acres of land near Mimico Station, on the G. W. R., six miles west of Toronto, upon which to locate the proposed Agricultural College and Model Farm. How he came to select such a spot, laying as it does, alongside of the great lagoon, known as the Humber Marsh—and for all we know, embracing that favored spot within the limits of the Farm—with the land at best of indifferent quality; we do not pretend to know. We trust it is not too late to reconsider his decision, as the price paid, \$50 per acre, ought to secure a better location and really first-class land.

We shall give a column of veterinary matter for the use of those who desire information in regard to treating diseases of live Stock. Write when anything is the matter and we will do what we can to help you.

We beg to call attention to the advertisement of Messrs. W. & J. Peters' Sale of Short Horn and Devon cattle in another column. The Devon Stock is well known as being among the very best in Canada.

Twenty-three head of Short Horns, comprising 20 cows and heifers and 3 young bulls, were recently selected in England by Messrs. John Thornton, London, L. Hampton, and W. C. Van Meter of Ky., and sent out to the Clarke Co. Importing Company. The whole of them were recently sold by auction in Kentucky, and brought \$19690, being an average of \$856 each. At the same sale, 17 cows and 19 bulls bred in Kentucky, brought an average of \$204 each.

The County of Waterloo Agricultural Fair takes place at Galt, Oct. 3rd and 4th. One great feature of this Fair is that the leading breeders of Waterloo and Wellington will expose for sale on the second day, a large quantity of thoroughbred stock, principally Short Horn cattle, and Leicester and Cotswold sheep.

By an oversight, the letter in our Sept. No., from Dr. Landor about Carter's Ditching Machine, read 200 rods done in 4 hours, instead of 200 yards—a good deal less than two hundred rods, but even that was exceedingly good work.

A very useful and handy pamphlet, "The Canadian Hand Book on Draining," has been published by Carter & Stewart of Aylmer, Ont. Our article on page 149 is from it. Copies can be had at our office; price 10 cts.

We have received a neatly got up little book entitled "The Patent Laws and Results of Census of U. S., 1871." It is published by Munn & Co., of the *Scientific American*, New York, and contains much useful information upon the subjects of which it treats.

Our readers will notice an advertisement of the Union Pacific R. R. Co., offering for sale the lands granted them by the U. S., as a bonus for building that Road. Already the business doing along the line is so great, that the Rolling Stock can scarcely meet the requirements of the traffic. The lands offered are mostly well watered and well grassed prairie lands in Nebraska.

Mr. D. Kennedy, Rideau Bank, in a recent letter says that the vindictive spirit shown towards us by the promoters of the Western Fair, has induced him to remit pay for two years subscription, and that our zeal and uncompromising advocacy of the true interests of the country at large, deserves that every lover of Canada should uphold us in our efforts. He says the FARMER'S ADVOCATE has proved True to its Name.

We have an application to insert an advertisement of prizes by lottery, amounting to between one and two million of dollars, with instructions to forward bill of charges for immediate payment. But deeming it not right to put such a golden temptation before our readers, we refuse to insert such, fearing the tempting prize might turn out like the Golden colored Pandemonium fruit in "Paradise Lost," most beautiful to the sight, but bitterness and ashes to the taste.

We have arranged for clubbing the FARMER'S ADVOCATE with a few of the best leading agricultural and horticultural journals in the United States, for 1872, at the undermentioned rates for a copy each of this and the other paper named:

Country Gentleman, Albany, N. Y., (weekly).....	\$3 00
Rural New Yorker, New York, (weekly) 3 00	
Hearth & Home, New York, (weekly) 3 50	
American Rural Home, Rochester, (weekly).....	2 50
American Agriculturist, (monthly).....	2 00
Beekeepers' Journal, N. Y., (monthly).....	2 00
National Live Stock Journal, Chicago, (monthly).....	2 50
Michigan Farmer, Detroit (weekly).....	2 50

The Central Fair at Hamilton comes off Oct. 4-6. The Central Fair at Guelph has been fixed for Oct. 10-12.

Sheep on a Poor Farm.

Some farmers of our acquaintance feel an antipathy to sheep, for the reason that they "bite close." We consider this their chief recommendation. They can only bite close where the pasture is short, and the pasture is short only on a poor farm. A poor farm will necessarily be encumbered with briars, weeds and brush, in the fence corners. Under such conditions, we would say to a farmer who has twenty dollars or upwards in cash (or credit for it, and then let him borrow the amount if he has to pay one per cent a month for the use of it), invest it in as many ewes, not older than three years, as you can get for that money. Put them this summer in such a field as we have described, and give them, in addition to what they can pick up, a pint of wheat bran and oat-meal daily, with free access to water and salt. They will first "go for" the briars and clean them out; every portion of that field will be trodden over and over again, and the weeds will have no chance. Fold them on that field during winter, and carry to them feed sufficient to keep them thriving. Get the use of a good buck in season, and in the spring, if you have luck (that means if you give them proper attention and feed regularly,) you will raise more lambs than you have ewes. The money will be more than doubled, and the wool and manure will pay for their feed and interest. In the spring you may put that field in corn, with the certainty of getting fifty per cent. increase of crop.—*American Agriculturist.*

SEASONING WOOD.—A writer in an English journal informs us that small pieces of non-resinous wood can be seasoned perfectly by boiling four or five hours—the process taking the sap out of the wood which shrinks nearly one tenth in the operation. The same writer states that trees felled in full leaf in June or July, and allowed to lie until every leaf has fallen, will then be nearly dry, as the leaves will not drop off themselves until they have drawn up and exhausted all the sap of the tree. The time required is from a month to six weeks, according to the dryness or wetness of the weather. The floor of a mill laid with poplar so treated, and cut up and put in place in less than a month after the leaves fell has never shown the slightest shrinkage.

Dairy Department.

Good Cow.—According to the Madison (Ind.) *Courier*, a lady of that city is the owner of the banner cow of the United States, which is proved by her achievements in the milk and butter line. The record for fourteen consecutive days foots up 96 gallons and upwards of milk, from which were made 32½ pounds of excellent butter.

Philadelphia Butter.—One of the Philadelphia dairymen, who never sells for less than a dollar a pound, puts up his butter in pound rolls stamped with the same stamp his father used, and it is said that not a pound of inferior butter ever went to market with that sign upon it. He keeps his milk pantry at a temperature of 55 degrees Fahr. Philadelphia butter has obtained a high reputation for its delicate color and its exquisite flavor, which in all first class butter are due almost entirely to the cleanliness and care used in the manufacture.

POTATOES FOR MILCH COWS.

Mr. R. A. Hunt, of Euclid, Ohio, gives the following result of an experiment he made in feeding carrots and potatoes to a milch cow. The cow to which the roots were given had precisely the same treatment each day, so far as care and other feeds were concerned, while the test was being made, having nothing in addition to the roots but dry hay and water. While thirty-six quarts of carrots were fed daily, thirty two pounds of milk were received in return; and while the same quantity of carrots and potatoes, equal parts, were fed, thirty-six pounds of milk were given; and when potatoes alone were given, forty pounds of milk were received.

The roots were cut and fed in messes of twelve quarts each, three times per day, and alternate changes made, so that a correct estimate might be set upon the different roots as milk-producers. Mr. Hunt believes potatoes to be a paying crop, when raised for feeding milch cows alone.—*From the Mass. Ploughman.*

SALT FOR COWS.

A writer in the Buffalo *Live Stock Journal* recites experiments made in June, for testing the effects of salt upon the milk. It was found that going without salt three days reduced the milk five per cent. in quality, and five days, seven per cent. Similar experiments later in the season produced less effect, as the season advanced. Withholding salt for the last two weeks in November, when the cows were regularly fed on hay to supply the place of the falling grass, no appreciable effect was noticed in the milk either for butter or cheese; nor did the cows show a much sharpened appetite for salt after so long an abstinence. He argues that since cows, as well as other stock, do not always require the same amount of salt, the best and safest way is to place it where it will keep dry and clean, and let them partake of it *ad libitum*.

WINTER MILK.

Requisites for Obtaining Healthy Milk in Winter.—Thomas Whitaker, Needham, Mass., makes some very sensible remarks in a late number of the *New England Farmer*, in regard to the care and feeding of milch cows. He says unless the skin of a cow is kept in a healthy condition, she cannot give healthy milk nor yield good butter. A healthy skin he regards as indispensable. Since through the pores of the skin a large amount of effete matter is thrown off, and if these pores are not kept open this matter is thrown back into the system and goes off by other secretory vessels, which are as likely to be the milk glands as any others. When this condition prevails, the skin becomes dry, scaly and itchy, and the cows are continually rubbing and licking themselves. The grooming of the cow, therefore, would remedy this to a great extent. And, as hay and oleaginous foods tend to increase an unhealthy condition of the skin, a liberal

supply of roots should be given, to correct the evil, which, together with grooming, will, for the most part, if not wholly, counteract the difficulty. He gives his method of treating stock, and its results, as follows:

In winter I go to the barn at half past five o'clock in the morning, rather sooner, perhaps, than a good many would like to go. I give each cow a small handful of hay, and then go to grooming them just the same as I should a horse—first the curry comb and then the corn broom brush, and then the hair brush—keeping them supplied with hay, a small quantity at a time, for about an hour. Then the boy milks. At night we fill a pork barrel with cut hay with which we mix about a half a peck of cotton seed meal, half a peck of corn meal, and half a peck of shorts. Upon this mixture we pour hot water, and cover with an air tight lid. In the morning we pour on more hot water, and after milking this is given to the cows; at eight o'clock they are turned out to water; at noon, when the boys come from school, they are fed with hay, and at four o'clock a little more hay; they are then turned out to water. After which they are fed each a pailful of mangolds, rutabagas and carrots cut fine; then cleaned and milked, then they have each about two quarts of cotton seed meal, corn meal and shorts—equal quantities of each; upon this boiling water is poured, to which cold water is added enough to fill a pail, with a little salt; after this a little more hay, and they are left for the night.

And now for the result. We sell one hundred and thirty-six quarts of new milk a month; in November we sold fifty-seven pounds of butter; in December we shall sell about the same quantity besides what we have for family use. This is from two cows and a heifer that was two years old last April, and calved the first of May. One of the cows dropped her calf in May, the other last September. We made butter all last winter, and shall make it all this winter. It pays better to make butter in winter than summer. Churning has never exceeded half an hour, and generally inside of that time. The milk is not scalded, but the cream before churning is brought to a temperature of about sixty degrees. I would say here that my wife was brought up to a New England farm, and that she loves to make butter; but she is satisfied that unless the cows are properly fed she cannot make good butter, and the fact that her butter comes so quick she ascribes to the feeding of the cows. A neighbor of mine some little time ago, told me my cows were too fat, and would dry up. A short time after he asked me how my wife got her butter, he said his wife had churned all day, and after he got home he took hold and churned till ten o'clock, and the butter did not come then. I told him to keep his cows as fat as mine and butter would come in half an hour.

DUTCH OR HOLSTEIN COWS.

A correspondent of the *New England Farmer*, gives the following account of his experience in a search for good cows in Holland:

"But I must come to the Dutch cow, which ought to interest you more, and about which you are aware I brought with me something of a distrust; indeed, I cannot now remember those I have seen at home as like the fine animals I meet with in North Holland. Certainly that is not the best method of selecting a stock, which has been adopted by some New Englanders.

"Even the porter of the hotel from which I write has his orders from America for Dutch cows, and he particularly for no apparent reason, but because he speaks English. He knows nothing on the subject, nor does he pretend to; his method seemingly is to go to the nearest cattle market, and buy such young stock as can be got for the least money. Here, as elsewhere, the only animal worth exporting to such a distance must be sought for many days, and when found, it is quite commonly in the hands of a man who has no desire to part with her.

"The best stock in Holland is raised and kept by gentleman farmers, who occupy the fine, high lands to the south of Haarlem towards Leiden, who never sell; and by the cheesemakers of the Purmer, the Beemster and the Shermer in North Holland. In Friesland and in Guilderland are also fine cows, but nowhere so generally as in the Purmer and the Beemster. I have spent much time in these places, and have exercised my Yankee inquisitiveness, and always with the same replies. The Dutch cow, in the latter named districts, and in all the better portion of Holland gives an average of twenty Dutch cans, equal to twenty-eight wine quarts per day of the pasturing season of about six months, or all the people with whom I have conversed are mistaken. From this is made two and a half Dutch pounds of cheese, and one-half pound of butter per day. The butter in this case being made from the skimming of the whey after making the cheese, and is not of a first-rate quality as I tested it. It is said this process is sometimes reversed. The cheese now sells at the farm at sixpence sterling per pound. I have endeavored to learn what is the largest milking known, from a single cow in one day, but not so satisfactorily. At Elswout, a gentleman's place near Haarlem, the farmer, who was a very intelligent man of past fifty years, said he had never known of more than thirty cans (forty-two wine quarts), twenty cans he considered the average of good cows for the season.

"A large farmer of the Beemster, knew a cow many years ago, who gave thirty-four cans (forty-eight wine quarts) in a day. One farmer assured me that he would not take more than twenty-four cans a day from a cow, seemingly thinking it as much as she could afford to part with. This sounds very much like a joke, but they are extremely careful in this regard, and do not, as a rule, milk a cow more than nine months of the twelve, or rather within three months of calving. Yet it is quite the rule to bring them in with their first calf at about thirty months old. Nowhere here do I find large cows sought after as milkers; at Elswout when I asked the farmer to show me his best milker, he pointed to the smallest cow in the field.

"Neither do I find any apparent choice as to color; perhaps five in six are black and white, others of a fine steel grey—if there is any preference it is for these—while everywhere are to be seen red and white, frequently the finest in form of any.

"During all these goings about, I had failed to see anything attainable which I would like to send home, and had about given up the plan, but determined upon one day more of thorough search.

"One farmer after getting half-way into the field with me, turned upon his heel and would go no farther, saying if he parted with his best he did not know where to look for more.

"Last Friday, at six in the morning, with a reliable broker, I started for the Purmer; at four in the afternoon with but little success so far, I was in the midst of the Beemster, when a farmer, whose acquaintance I had previously made, said 'it is milking time, go along the dykes and you may find what you want.'

"At the next place of stopping were some twenty of the finest cows; on inquiring particularly for young stock, the farmer said he had two 'schots' (heifers), half an hour away, which we would travel miles to find the like of. I asked if he had raised them himself. Yes, he said, and their mothers before them, one of which he pointed to, as a girl was commencing to milk her.

"She is of medium size, white, with little black, and has all the indications of a good milker, with a silky skin and prominent veins. She is four years old, and gave between eight and nine Dutch cans at this milking; last May, according to her owner, she gave twelve to thirteen cans at a milking.

"The other is small, but of the finest model, steel grey and white in color, is four

years old, and the maid said, gave more milk than the first, which I had not time to confirm, but started to see the heifers. On the way it came out that I had hit upon the breeder and owner of the prize cow at the Purmerend show, which is equivalent to saying the best 'calf cow' exhibited in North Holland, according to the judges on that occasion; such judges are not, however, always infallible.

"To cut this abominably long letter short, I was not twenty minutes in deciding to buy the three, if I could do it reasonably; and it is done. The prize cow stands five feet high on the quarters, was six years old last March, is black and white, and will calve in November next.

"One heifer is a handsome black and white, was two years old last March, and will calve the latter part of November; the other is gray and white, two years old in May last, and will calve in September; both are uncommonly large and finely formed."

The *Mark Lane Express*, of a recent date, contains a report of Short-horns sold at the Royal Society's Show—among which are the following to come to Canada:—Lord Sudeley's Cherub, to Mr. Cochran, Compton; Col. Townley's Baron Hubback 2nd, to Mr. Gibson; Col. Townley's British Baron, to Mr. Snell, Edmonton; the Rev. Bruce Kennard's Oxford Duchess, to Mr. Cochran; Mr. Ladd's Lord Oxford heifer, to Mr. Miller, Pickering; Mr. Hosken's Countess of Oxford, to Mr. Gibson; Mr. C. Burnrtt's Belinda Oxford, to Mr. Cochran; Mr. Outhwaite's Lady Brough, to Mr. Gibson; Messrs. Garne's Nellie Booth, to Mr. Cochran; Col. Townley's Lady Oxford, to Mr. Miller; Col. Townley's Butterfly's Memento, to Mr. Gibson; Mr. C. A. Barnes's Royal Duchess 2nd, to Mr. Cochran.

COOKED WHEAT FOR HOGS.

A correspondent of the *Cincinnati Gazette* says:—On the 4th of August, 1870, I put up 15 hogs, weighing 2,400 pounds, and fed them 5½ bushels cooked wheat the first week. On the 11th their weight was 2,600 pounds; gain 200 pounds, or a gain of 13½ pounds to the hog, being nearly two pounds a day. The next week I fed them 6 bushels of the cooked wheat, producing an increase of 251 pounds, or 14½ pounds to the hog, being a gain of over 2 pounds a head a day. The third week I fed them 10 bushels of cooked wheat, resulting in a gain of 260 pounds, or 17½ pounds a head, or 2 10-21 a day. The fourth week I fed them 11½ bushels of cooked wheat, the gain being 320 pounds, or 21½ pounds a head, or a fraction over 3 pounds a day each. The hogs were then sold and taken away. They gained in four weeks 995 pounds on 32½ bushels of wheat. In this manner of feeding I received a good price for the wheat, as the hogs were sold at \$8.25 per 100 pounds. The breed was the Russian China stock, about fifteen months old.

Training Colts and Calves to Lead.—The first attempt to discipline a young animal is to teach it to stand while tied, and to lead with the halter. A calf should be taken from the cow as soon as dropped, and tied up; a strap with a buckle being placed around its neck. A ring should be fastened to the strap, and a light chain, with a swivel in it, fastened to the ring by means of a snap-hook. The calf will not chew nor suck the chain as it would a strap or rope; and this annoying trick will not be learned. It can turn about as much as it pleases without twisting the chain and strangling itself. It should be led to the cow to suck twice a day for four or five days, when it may be taught to drink. Patience will be required the first or second time in teaching it to lead. It should not be dragged along, but should be managed with judgment until it understands what is required, when it will go along very readily. It is desirable at times to lead a heifer or cow, and unless trained in this way when young, difficulty is experienced in doing so. A colt should be at work; it may be loosed when turned into the mare at night. Much after-trouble may be spared by preventing a colt from running around and getting into mischief, which it will readily do, by having a halter for it and training it to lead.

to insert an advertisement, amounting to be of dollars, with in charges for immediately it not right to put before our readers, bearing the tempting of the Golden colored Paradise Lost," most bitterness and ashes

lubbing the FARMER'S the best leading agricultural journals in the United undermentioned rates and the other paper

Albany, N. Y., \$3 00
New York, (weekly) 3 00
New York, (weekly) 3 50
Rochester, 2 50
(monthly) 2 00
N. Y., (monthly) 2 00
Chicago, 2 50
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Hamilton comes off Oct. at Guelph has been

Poor Farm.

Your acquaintance feel for the reason that we consider this their. They can only pasture is short, and only on a poor farm. necessarily be encumbered and brush, in the er such conditions, we mer who has twenty a cash (or credit for it, row the amount if he cent a month for the in as many ewes, not rs, as you can get for hem this summer in ve described, and give o what they can pick t bran and oat-meal ss to water and salt. for" the briars and every portion of that o over and over again, ave no chance. Fold d during winter, and sufficient to keep them use of a good buck in spring, if you have luck give them proper attention. ularly,) you will raise you have ewes. The than doubled, and the ill pay for their feed he spring you may put , with the certainty of ent. increase of crop.— turist.

—A writer in an English that small pieces of non-be seasoned perfectly by ours—the process taking od which shrinks nearly ration. The same writer ed in full leaf in June or he until every leaf has nearly dry, as the leaves themselves until they have sted all the sap of the uired is from a month to to the dryness or wetness e floor of a mill laid with d cut up and put in place after the leaves fell has ghtest shrinkage.

Stock.

As we intend to make this department of special interest to all that are engaged in breeding, we shall be glad to have a large correspondence with those interested in stock matters.

We shall be able to offer special inducements to breeders to advertise in our paper, and shall keep a book for the entry of all pedigrees of Short Horns open to offers of purchase. Breeders' cards, not exceeding five lines of space, will be inserted for one year for \$5; for a larger space \$1 per line per annum will be charged.

Southdown sheep and Berkshire pigs, bred by F. W. Stone, Esq., came off on his farm, one mile from Guelph, Sept. 14th. The day was fine, but the attendance was very small, owing, perhaps, to the Guelph races taking place on the same day. 100 Cotswolds, comprising about equal numbers of rams and ewes, were offered, and about half of them were sold. Prices for rams averaged \$30 each, the highest realized being \$80. For ewes the average was about \$30 per pair. Southdowns went low, \$20 being the highest offer for a ram, and only four out of ten offered were sold. The animals were in thin condition from the effects of the drouth on the pasture.

STOCK JUDGING AT FAIRS.

It is becoming a great source of com-

plaint among stock breeders that the judges at Agricultural Fairs, especially at the larger ones, often pass over the best animal and give the prizes to those that are in such high condition that their defects are completely hidden to the eye. This is partly due to the fact that the judges are selected with little regard to their actual knowledge of the good points desirable in the class of stock they are called upon to judge. Their position is often due rather to the favors of directors than any merit of their own.

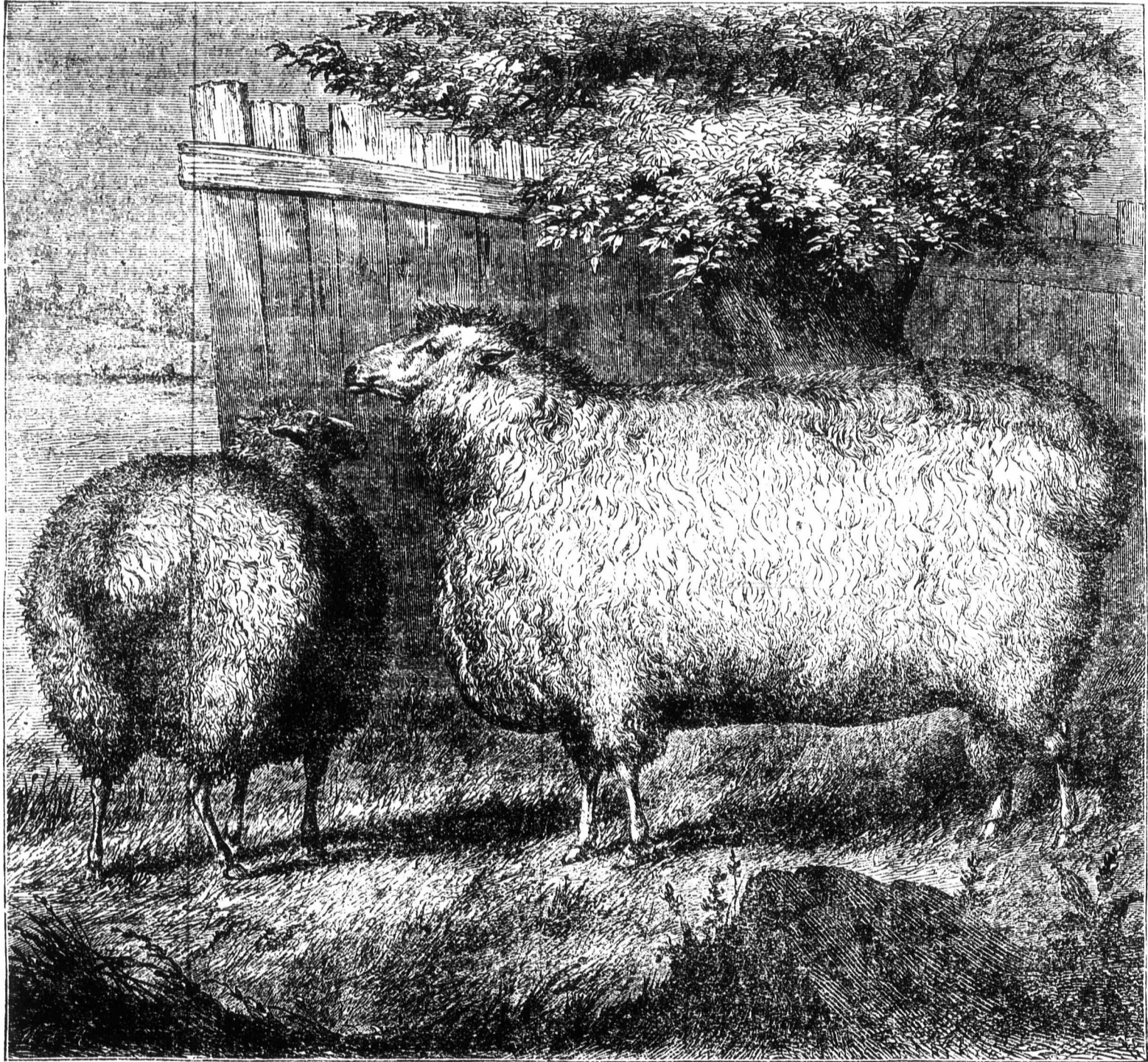
Many fine animals, after undergoing a course of training to make them presenta-

ble before such judges, are utterly ruined for all breeding purposes afterwards. So great an evil do some of our breeders find this, that they have resolved to withdraw altogether from exhibiting valuable stock in the older female classes. This feature also accounts for the paucity of competition in these classes, while the younger ones are usually well filled.

Why, after the trouble and expense has been gone into of getting up an exhibition and inducing people to subscribe a liberal prize list, the most important part of it, the selection of judges, is left pretty much to the last, and then, too often, in the hands of two or three of the directors, whose sole object is to get friends appoint-

FARMERS PACKING THEIR OWN HOGS.

We have of late received several letters from various sections of the country, showing that the present low range of prices in the hog market, and the possibility that the same may be maintained for another year, has created a popular idea in the minds of a certain class of farmers, that it would be rather a good idea for farmers to cut and pack their own hogs, instead of sending them to market to be cut and packed by others, and thus save a portion, at least, of the money which is now made by middlemen. And we have been solicited to give our opinion as to the feasibility of this "reform," and to give the farmers of the country some idea of the manner in which pork products are prepared for market. In relation to this matter, we can say, that, while in favor of farmers' asser-



COTSWOLD SHEEP.

We give this month a very excellent cut of a ram and ewe of the Cotswold breed of sheep. This breed is fast gaining favor with our farmers. They have fine long combing wool of a better quality and larger quantity than the Leicester. They attain great weights, some having been sold in England that went to a dressed weight of 420 pounds when slaughtered. There is just now a great demand for rams of this breed to cross upon the existing flocks with a view to the improvement of the fleece while at the same time enlarging the carcass.

SALE AT MORETON LODGE.

The 12th annual sale of Cotswold and

ed whom they can control, is beyond our comprehension. It would not be possible, in all cases, to give entire satisfaction to every one, but the general public are usually pretty fair critics, and can readily appreciate the advantage to all, of having encouragement given only to those really deserving of it. Let the motto of every Agricultural Society be, "A fair field and no favor." The success of an exhibition is made or marred by the decision of the judges appointed; and exhibitors will patronize those at which they observe there is no partiality or ignorance shown by those whose business it is to pass judgment upon their efforts at improvement.

ing their independence upon all possible occasions, and of their being relieved from the exactions of middlemen wherever their services can be dispensed with profitably, we believe that in this case the farmers will make more money by confining their efforts to the raising of pork which they understand, and in which they can calculate with a reasonable degree of certainty the profits they will be likely to realize, and leaving the packing of pork to those gentlemen who understand that line of business, and who possess the capital to conduct it even if their calculations of profits fail. We think the middlemen, who bought hogs alive all winter from \$5 to \$7 per hundred, and sold their product on a market regulated by \$3 live weights,

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were not very much in the way of farmers, or farmers' profits.

It would be possible for farmers to kill and pack their own pork, were it not for the technicalities of the provision trade. But it is a business replete with technical requirements, which it would require many years to remove, even if complete removal were possible. To start with, there must be so many pounds of green meat packed in a barrel; in the second place, the contents of the barrel must consist of a certain definite number of pieces; these pieces must be taken from a definite portion of the hog, they must be cut in a certain prescribed shape, they must be placed in the barrel in a certain prescribed position, so that certain pieces will be on top, and certain pieces on the bottom. The barrel must also contain a certain amount of a certain kind of salt; and, finally, the barrel must be just so long, and just so far around; the staves must be of a certain length, just so thick, and of a certain kind of wood; the head must be so far across, and just so thick, and the hoops must be just so many, and of a certain kind of wood. In short, the business is attended with just such niceties, which have been established in the trade, in order that, when a thousand barrels of pork are bought together in one pile, each barrel shall be, as near as circumstances and human ingenuity will allow, just like every other barrel.

Hogs at a packing house, after being slaughtered, are cut into and packed as Mess Pork, Clear Pork, Extra Clear Pork, Mess Ordinary or Thin Mess, Prime Pork, Extra Prime Pork, Prime Mess Pork, Rumps, Long Hams Pickled, Long Hams Dry Salt, Short Hams Pickled, Short Hams Dry Salt, Shoulder Pickled, Shoulders Dry Salt, Rough Sides, Short Clear sides, Short or Clear Rib Middles; and, in addition, for the English market, Cumberland Middles, Long Middles, Long Boneless Middles, Short Middles, and the Wiltshire cut.

One great difficulty in the way of farmers generally killing their own hogs, would be the impossibility of determining just what kind of product to make out of them. For while it might be possible to dispense with that class of middlemen known as packers, it would be impossible to dispense with that other and most numerous class of middlemen known as provision merchants or dealers. The packers, as a general thing, do not smoke either hams, bacon or shoulders. This is a matter attended to exclusively by a certain class of provision dealers to whom the packers sell the product. Each one of the provision dealers has a particular line of trade, whose requirements he endeavors to fill. A dealer looking to the supply of the common wants of the Southern market desires sides for bacon purposes, and gives a packer an order for as many thousand pounds of "Rough Sides," or whatever cut he may desire, and the product is furnished from hogs which, in the absence of this order, would otherwise have been made into Mess Pork, or some other description of barreled product. Another dealer, looking to English consumption, gives an order for some peculiar kinds of "cuts" in special favor in that market. Such men as Duffield and Dupce and others in this city who make a speciality of curing hams, and who possess the secret of turning out hams of delicious flavor, which bring the highest price at all the markets, purchase the long or short hams green from the block. Those in a similar line in other cities, purchase them rubbed in salt, or a few days in salt, with an idea of getting them in their own houses in as near their natural state as possible. These men could do nothing in their trade with a ham fully cured by persons of only average skill or experience. Ham dealers with a trade of less refined discrimination to satisfy, buy hams in pickle, or in dry salt; but all insist upon perfecting according to their own ideas, the later stages of the curing process. So we might go through the entire list. It will readily be seen that it would be impossible for

these provision dealers to be in such communication with the great body of farmers as to insure that the aggregate quantity of each description of product should at all approximate to the shifting demands of the various markets in which it is consumed.

As to whether farmers could slaughter and pack their own hogs as economically as it is done by packers, we think is very doubtful. With a reasonable price for hogs (say \$6), the offal of a hog will average about 70c. to 80c. to the packer; nearly all of which would be lost to the farmer, necessarily operating without the costly appliances with which packers have provided themselves, in order to save every portion of the animal. Probably the difference between the yield of lard under the operations of the steam vat of the packing house and the farmer's iron kettle, would be as much more. And the product placed in the market would bring 50c. per barrel less on all barreled products, and 4c. per pound less on all boxed and loose meats. There would be, too, a great loss in the way of soured meats, which, even under the manipulation of experienced packers, is very considerable. Great care would be required in gradually and thoroughly cooling the slaughtered animals before cutting and salting—allowing them to hang for some days—and probably, save in small farms, special buildings would have to be provided for the purpose.

On the whole, we do not think the aspect of the case at all favorable; and believe that farmers (unless they wish to abandon farming and turn packers, and provide themselves with the suitable appliances and conduct operations on a scale of sufficient magnitude to make a business of it) will do a great deal better to raise their hogs, sell them in the lump, as they do now, get their money, and let the regular packers take the chances of making money or losing it, by subsequent fluctuations of the markets.—*National Live Stock Journal*.

BUY CATTLE TO FATEN IN THE WINTER

The liberal and constant application of manure is the grand basis upon which rests the grand basis upon which rests successful farming. Of manure there are three kinds—the so-called artificial manures, green manures, and animal or barn-yard dung. Each in its place is necessary to a proper enrichment of the soil, and the obtaining of all is a matter of much importance. Now, the heading of our present article leads us to a consideration of the manufacture of the latter manure. To make plenty of barn-yard manure a number of stock must be kept, and such should be richly fed; for as the fodder is rich, so will the manure be impregnated with a maximum amount of those rich elements which go to increase the growth of the plant.

While endeavoring to fat a great number of head of cattle, the question of a profitable return for the food supplied has to be considered as inseparably connected with the manufacture of rich manure. We have seen beasts put up to fatten that have eaten more than they have made. A thin beast, put up in the cold weather, takes a great amount of its food for the purpose of supplying the necessary heat to the body; while an animal in good order has a heat-producing store in its own fat, which allows all the extra food to be taken up in producing more meat. We may lay it down as an axiom that it will not pay to put up a thin beast to fatten upon stored or winter food.

Pigs should be put up to finish off as soon as they have begun to exhaust the stubbles; and cattle should be stalled when by running upon fall pastures they have got themselves in good order, and before the cold weather has nipped down the grass.

Those farmers who have now a piece of low pasture will do well to go off into the higher sections to buy cattle. In these latter parts the pasturage is much burned up, and there cattle may be bought at a reasonable figure for cash.

Take such cattle and put them upon a low-lying piece of ground, and it is astonishing with what rapidity they will increase in weight. After August the fall pasturage will be ready for them; take them off this as soon as very cold nights set in, and stall feed. They will be the very best of beef by Christmas with only stall feeding for about six weeks.

Money may be made in the current year by growing and selling a large breadth of grain, but it is made at the expense of our future income. Fattening of stock is the most profitable manner in which to apply our farm produce, for we have profit from the animals and manure to boot.

The greater portion of our produce should not be carried to town in the waggon, but should walk off the farm.

At the same time there is such a thing as putting more feed into a beast than his increase will pay for. If we adopt as an axiom that an animal should be always in good order before put up for stall feeding in winter, we cannot go far astray.—*Mich. Farmer*.

THE HORSE FROM A MORAL STANDPOINT

The driver who fights his horse has not got through the first lesson in the management of these animals. Some strike their horse in a fit of anger; others beat them as a punishment for what they conceive to be sinful acts on the part of the horse.—Now, the fact is, the horse never does wrong on purpose. In this respect he is better than most men. If he refuses to pull, it is the fault of education, and if he runs away, and kicks things to pieces, it is because he is frightened. Men, when they are scared, do some very foolish things, and they are excused; but no allowance is made for the runaway horse.—He is kicked and cuffed and beaten, as if what was done was done on purpose to hurt somebody, and not in consequence of some supposed danger, which the poor animal was trying to flee from. Horses never kick without a motive. They use their heels for defence; and the first kick at the traces is given to ward off what to them seems danger. No horse ever kicked for any other purpose. They cherish no ill feeling against any one, and always do as far as they know, what is right.—All horses can be educated to do whatever the driver wishes. They obey cheerfully and without grumbling, even although put to rest at half rations in a cold, filthy, muddy stable. A horse can be taught to know the harness will not hurt him. Then he will not kick at it and run away. He is easily taught to pull by the traces, or by the halter-strap. If you want him to pull on the halter, all you have to do is to hitch him to something he can easily break and he will soon learn to pull back with such force that no bridle can hold him. If you want him to pull well in the traces, give him a light load until he learns to move it, and he will soon pull his best at heavy loads. Horses balk or pull just as they are taught. It does not matter which end of the horse you fasten the weight to. They will balk as readily when hitched by the traces, if properly trained, as when hitched by the halter; and they will pull back as faithfully by the halter, if trained to do so, as they pull forward when hitched by the traces to a wagon. It is an easy matter to teach a horse to refuse to pull at either the halter or traces, and it is equally as easy to teach him to pull by the same means. If those who drive horses would keep this in view, they would never be guilty of the shameful act of beating their team, in a mud hole or on the hillside.—*How to Make the Farm Pay*.

A fat abbe coming late in the evening to a fortified city, inquired of a countryman if he could get in at the gate. "I think you can," said the rustic, surveying him carefully; "I saw a load of hay go through this morning."

A poor toper, as a last resort for more drink took his Bible to pawn for liquor, but the landlady refused to take it. "Well," said he, "if she won't take my word or God's word, it's time to give it up." And he went and signed the pledge and kept it faithfully.

Ladies' Department.

MEN COOKS.

Mrs. Elizabeth Cady Stanton recently delivered a lecture at San Francisco, California, in which she said this sensible thing about men cooks, which we feel sure every woman in the land will applaud:

"Horace Greely has said that what we want is sixty thousand good cooks, instead of sixty thousand men voters. Well, I know we do, and I propose that we educate the men to do it. [Applause and laughter.] Men are adapted to this work. They can stand any amount of heat. They don't mind any amount of smoke. A dozen or so of them will get together, and smoke a room so full that you can't see across it. They like smoke, and cooking will give them plenty of it. Men are the best cooks. Now, the best book on cooking ever written was written by a man. The quickest cooking I ever knew of was by a man on shipboard. He only had one spoon, which he would dip into everything, and between flavors he would lick it. A woman wouldn't have done that; she would have dirtied a dozen towels and consumed vastly more time."

SHEEP'S HEAD—A DINNER DISH.

We had a delicious dinner to day of simple, inexpensive materials, but really very toothsome. I purchased of the butcher the head and pluck of a sheep or lamb. This was boiled an hour; then the meat was cut from the bones, and with the liver, heart and tongue was chopped fine. Early rose potatoes were boiled and when cool were chopped fine, and fresh young beets were similarly prepared. Twice as much potatoes as meat was made ready, and half as much of chopped beets. The three were then mixed together in the chopping bowl, and warmed over with a goodly slice of butter; salt and pepper to season it well, and two table-spoonfuls of vinegar were added a few minutes before it was served. This dish with a raspberry shortcake, made us an appetizing meal, which all the household enjoyed. Its cost is very trifling. The sheep's or lamb's head must be neatly prepared, and soaked in cold water the night before it is cooked. It will not keep for any time, so it should always be cooked the day after it is killed.—*Mrs. Homespun, in Prairie Farmer*.

To Make Elder Wine.—Having stripped off the berries, place them in a large pan or tub, and a little more than will cover them with water. Let them remain four or five days, occasionally squeezing out the juice with a presser, made of a small block of wood like the head of a mallet, fitted with a handle of suitable length. When they have remained sufficient time, press out the juice finely through a fine sieve or straining-canvas. The juice being quite clear, add three or four pounds of raw sugar to each gallon of juice; half a pound of ginger, two ounces of cloves, and one or two ounces of allspice (according to palate) to every four gallons. Let the whole boil a full half-hour after it commences to boil; pour it into an open cask or tub, and when luke-warm, add yeast placed on toast, keeping it well covered, and let it work for a little less than a week; at the end of which time, skim off the yeast, put it in a cask and leave it to ferment, with the vent-peg loose. When the fermentation ceases, bung the cask tightly and let it remain for two months at least, when it will be fit for use; although a longer time than two months is preferable, if the wine be not especially required. It should be remarked that the addition of a bottle of brandy, put into the cask before bugging up, greatly improves the wine, although it is not absolutely essential.

Boston Brown Bread.—Take four coffee-cups of sifted Indian meal, and two of coarse flour, rye or wheat; add to it enough warm water to make it as thick as pancake batter; stir in one small tea-cup of molasses and a teaspoonful of salt; add half a cup of home-made yeast, and turn the mixture into an iron baking pan; cover it closely with a thick cloth, and let it stand where it will rise. When it cracks on the top, which should have been smoothed down with the hands wet in water, bake it for five hours in an oven of moderate heat, so that it will not burn the crust. The flavor and quality of this bread depends upon the length of time it is baking.

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To Pickle Peaches.—Take the sound peaches, remove the down with a brush, make the vinegar hot, add to it the sugar, boil and skim it well, stick five or six cloves in each peach, then pour the vinegar boiling hot over them, cover them over, and set in a cold place for eight or ten days; then drain off the vinegar, make it hot, skim, and again pour it over the peaches; let them become cold, then put them in glass jars, and secure them as for preserves.

Potato Soup.—Here is a recipe that has the merit of being very economical, very palatable and very quickly made. Boil in a quart of water a small slice of pork, and one or two onions, according to size. Take from six to eight good sized potatoes, boil, mash fine, and put them in with the pork and onions. Boil half an hour; then add milk enough to make it the right consistency—about as thick as pea soup. Pepper and salt to taste; and first, before taking up, strain through a colander, and serve.

Sweet Peach Pickle.—Peel two gallons of ripe peaches, leaving them whole, and into each peach put three cloves. Put them into a preserving-pan; to which add two pounds sugar, one quart vinegar, and a few pieces cinnamon bark; boil ten minutes. Turn into a jar and tightly fasten the cover; keep them in a cool place. They are very nice.

Very Plain Tea Cake.—A half cup of butter, two of sugar; work the sugar and butter together, and add four beaten eggs, three tea-cups sifted flour, an even teaspoonful of soda dissolved and strained, some currants or ground coriander seed, and lastly, a teaspoonful of sour milk.

Spice Cake.—Five eggs, four and a half cups of flour, three of sugar, one of butter, and one and a half cups sour cream, a teaspoonful of soda, cinnamon, nutmeg and cloves to taste.

How to Improve Fish.—Fresh fish is made much more palatable by stuffing and baking. Make the stuffing the same as for a turkey.

Starching Collars.—Mix some blue starch in cold water, and let it be rather thin. The collars and cuffs, when quite dry, must be dipped into it. Have ready a large basin of cold water, and quickly rinse the articles, and wring them very dry; roll them up in a thick cloth, and let them remain two or three hours, but not more. Iron them with a hot iron, and press them as much as possible with it, which glazes them. Lay them on a plate before the fire to dry thoroughly.

Vinegar.—Melt one pound of brown sugar in four pints of water; when quite melted, put it in a jar, and the vinegar plant in it, cover up with brown paper, pricking airholes in the paper. Keep the jar in a warm place, and in two months the vinegar will be fit for use.

A MODERN DAVID.

Not long since a Swiss shepherd boy, only fourteen years of age, was tending a flock of sheep among the hills in the Canton Grisons, when a bear made a raid upon the flock and seized two of the finest sheep. The courageous little fellow attempted to drive the bear off by beating him with a stick, but Bruin turned upon him, and he was forced to run for his life. The bear was gaining rapidly upon him, and there was seemingly no escape. Suddenly the lad bethought himself of a narrow ravine, three hundred feet deep, close by, across which he thought he could leap, while he hoped the bear would not notice it, and fall to the bottom. Dashing on, half wild with excitement and dread, he reached the edge of the precipice, the bear close at his heels. The chasm was upward of six feet wide, but he cleared it by a desperate bound, and landed safely on the opposite side. The bear, as he hoped, did not see the ravine, and fell headlong to the bottom, where, bruised and bleeding, and unable to rise, the shepherd had found him.

It is said that if a tree is felled while in leaf, and allowed to lie until the foliage withers, the wood will be the soonest seasoned, as the leaves will draw all the sap before they die.

Youths' Department.

Answers.

TO DIAMOND PUZZLE IN SEPTEMBER NUMBER. Correct answer by N. Brown, London.

W I T N E S S I M I L I T U D E S I M I L I T U D E S I M I L I T U D E S I M I L I T U D E S I M I L I T U D E S

TO RIDDLE. Correct answer by E. Jones, Sarnia. Toothache.

TO ENIGMA. Correct answer by S. W., Delaware. Calcutta.

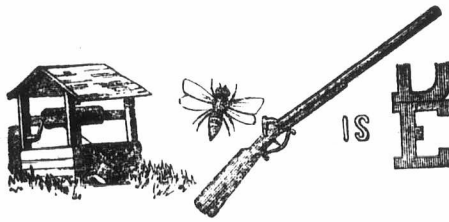
TO HIDDEN NAMES. Correct answer by P. Cross, Guelph. 1. Obed. 2. Nathan. 3. Allen. 4. Amos. 5. Levi. 6. Andrew.

DIAMOND PUZZLE.

A consonant; a vessel; the qualities of man; the name of an M. P. P.; one of the points of the compass; the name of a M. P. P.; a consonant.

The centre read downward and across gives the name of a M. P. P. JAS. HOOPER.

PROVERBIAL PUZZLE.



Ground hog—Sausage. A fireside tail—The cat's. A military air—A pla-toon. A precious volume—A bank book. Stealing nutmegs is a small crime, but it might lead to grater. What do liars do when they die? They lie still.

A Cincinnati market regulation—"No whistling near the sausage stands."

Othello was not a lawyer, although he was attorney-general of Venice.

A Kansas man is in jail for letting a neighbor's mule follow him.

HOW BRIDGET MENDED THE STOCKINGS.

We were amused the other day at a lady friend's account of the manner in which her Irish servant mended her stockings. When a hole appeared in the toe, Bridget tied a string around the stocking below the aperture, and cut off the projecting portion. This operation was repeated as often as necessary, each time pulling the stocking down a little, until at last it was nearly all cut away, when Bridget sewed on new legs, and thus kept her stockings always in repair.

A man having spite at a sausage maker, rushed into his shop when crowded with customers, threw a large dead cat upon the counter and said: "That makes nineteen! We'll settle when you are not busy."

The key to Darwin's theory which is apparent to all is—Monkey.

Markets.

GRAIN.—The latest advices from Europe indicate a serious deficiency in the grain crops, especially Wheat. Wet weather has generally prevailed through the harvest in England.—The deficiency of the English Wheat crop is put at 23 per cent. at the lowest, while some reports place it higher. Wheat has been steadily advancing in price at the great commercial centres, and large orders for grain continue to be sent from Europe to America. The rise on this side does not, however, correspond with that on the other side. This is said to be mainly due to the scarcity of freight and rise in rates. The G.T.R. made a sudden advance in their rates of freight on Wheat from local points to Montreal, which has had the effect of checking competition among buyers. Our Wheat crop is very large, and must be marketed; and at even present prices must prove profitable. At New York, Sept. 18th, White Wheat had advanced to \$1.65; Spring Wheat and Red Wheat to \$1.55. Other grains rule comparatively low for want of an export demand; and the failure of the Hop crop will somewhat curtail the demand for Barley; at least the brewers must have it at moderate prices. Canada Barley is quoted as worth \$1.10 at New York.

LIVERPOOL MARKETS. Liverpool, Sept. 20, 1871. Flour, 24s. to 26s. 6d.; Red Wheat, 10s. 9d. to 11s.; Winter Wheat, 11s. 5d.; White, 12s. 8d. per bus.; Corn, 32s. 9d. per qr.; Barley, 4s.; Oats, 3s. 2d. per bush.; Peas, 40s. 6d. per qr.; Pork, 42s. 6d.; Lard, 44s. per cwt.

MONTREAL MARKETS. Montreal, Sept. 20, 1871. FLOUR—Receipts, 5071 bbls. Market quiet, and rates generally unchanged. Sales reported: Fancy at \$5.90; Welland Canal supers at \$5.60; Western States at \$5.55 to \$5.60; Canada at \$5.57 1/2 to \$5.65; with exceptional brands of strong baker's flour at \$5.90 to \$6.00; taking sparingly at \$5.20 for choice Canada; \$5.05 to \$5.12 1/2 for Western States. Only a limited business done for consumptive requirements. WHEAT—Quiet; a cargo lot of No. 2 Western was taken at \$1.25. Views of buyers, \$1.35 to \$1.37 for Canada White Wheat to arrive.

LONDON MARKETS. GRAIN—White Wheat, per bush., \$1.10 to \$1.16; New Red Winter Wheat, \$1.05 to \$1.08; Old Red Winter Wheat, 85c. to 95c.; Spring Wheat, \$1.05 to \$1.10; Barley, 45c. to 56c.; Peas, 55c. to 63c.; Oats, new, 30c.; Oats, old, 35c. to 40c.; Corn, 75c. to 80c.; Rye, 55c.—PROVISIONS—Eggs, fresh, per dozen, 13c. to 15c.; Butter, fresh, per lb., 18c. to 22c.; Butter, keg, per lb., 13c. to 15c.; Butter, dairy, per lb., 18c. to 20c.; Butter, pails and crocks, 14c. to 17c.; Cheese, factory, per lb., 8c. to 9c.; Tallow, per lb., 8c. to 9c. PRODUCE—Hay, old, per ton, \$10 to \$11.50; Clover Seed, \$4.50; Timothy Seed, \$4 to \$4.75.

LIVE STOCK. The markets for live stock are improving, with a more active demand, and we note an advance of 50c per cwt. live weight on beeves at Albany and all points East, the price being now \$12 to \$12.50 per cwt. alive for prime fat cattle. Sheep are in good demand, and fetch 6c. per lb. live for choice. Lambs a little more. Hogs are plentiful with prospects of low rates. Rates at New York are 4c to 5c for live, and 6 1/2 to 7 1/2c for dressed.

The short crop of hay and want of pastureage will induce many to crowd their live stock on the market this fall, but the prospects are good for those who can buy to fatten, or hold their stock over winter. We quote Toronto prices Sept. 22. BEEVES.—1st class, 4c to 4 1/2c live weight; 2nd class, 3 1/2c to 3 3/4c live weight; 3rd class, 3c to 3 1/2c live weight; stockers, 2 1/2 to 3c live weight. SHEEP.—1st class, \$1.50 to \$3.00; 2nd class, \$4 to \$4; 3rd class, \$3 to \$3. LAMBS.—1st class, \$3 to \$3.25; 2nd class, \$2.50 to \$3; 3rd class, \$2.00 to \$3. CALVES.—1st class, \$7 to \$8; 2nd class, \$4.50 to \$7; 3rd do, \$3 to \$4. CHEESE AND BUTTER.—The heavy losses made by shippers on last year's product of cheese which was bought so high as to leave no margin, has made them more cautious, and for large lots, not more than 8c can be obtained. Small lots for local use bring 9c to 10c. Butter.—The quality of what is brought in packed is not good enough for foreign markets, and only a first-class article is saleable in small lots and brings 16c to 20c. Ordinary is unsaleable. Really good roll butter is in demand, and would fetch 22c to 24c at Toronto. 15c to 20c in most local markets.

Miscellaneous.

SWINDLING THE FARMER.

A farmer recently called at the office of the Chatham Banner and related his experience in connection with some patent right speculators. It was the same old story. Patent men had a good thing; lots of money could be made out of it; was in a hurry to go somewhere else, and would give farmer the sole agency for the Township; consideration—a note at six months or a year, for \$100 or so, before the expiration of which time he could make a pile; farmer gives the note and receives the deed and parcel of blank orders; soon finds the machine is a humbug, and that it is unsaleable. The scene closes with a letter from a broker stating that the note is in his hands and must be paid at maturity. Farmer pays the note, and goes home a sadder and wiser man. This is about the general run of complaints that we hear, and the last one does not differ materially from the rest. We should think that this patent right business was about "played" by this time, and that any farmer finding an agent on his premises would be more apt to "go for him" with a pitchfork than to listen to his seductive tale. People may accept as a fixed fact, that any itinerant pedler of patent rights, or anything else, who pretends to offer such rare chances of money making to an entire stranger, is a swindler, and that the less they have to do with or say to him the better.

OPPOSITION TO GREAT INVENTIONS.

Tradition says John Faust, one of the three inventors of printing, was charged with multiplying books by the aid of the devil, and was prosecuted both by the priests and the people. The strongest opposition to the press, has, however, been presented in Turkey. The art of printing had existed three hundred years before a printing press had been established in Constantinople. From 1726 to 1740, that press issued only twenty-three volumes. It then stopped, and did not resume its issues until after an interval of more than forty years. About 1780 a press was established at Scutari, and between 1780 and 1808 issued forty volumes. Again its operations were suspended, and were not resumed until the year 1820, since which time it has worked more industriously than heretofore, although fettered with the paternal oversight of the Turkish government.

The ribbon-loom is an invention of the sixteenth century; and on the plea that it deprived many workmen of bread, was prohibited in Holland, in Germany, in the Dominions of the church, and in other countries of Europe. At Hamburg, the council ordered a loom to be publicly burned. The stocking-loom shared the fate of the ribbon-loom. In England, the patronage of Queen Elizabeth was requested for the invention, but it is said that the inventor was rather impeded than assisted in his undertaking. In France, opposition to the stocking-loom was of the most cruel kind. A Frenchman who had adopted the invention, manufactured by the loom a pair of silk stockings for Louis XVI. They were presented to the monarch. The parties, however, who supplied hosiery to the court, caused several loops of the stocking to be cut, and thus brought the stocking-loom into disrepute at headquarters.

Table-forks appear so necessary a part of the furniture of the dinner table, that no one can scarcely believe that the tables of the sixteenth century were destitute of them. They were not, however, introduced until the commencement of the seventeenth century, and then were ridiculed as superfluous and effeminate, while the person who introduced them into England was called Lucifer. They were invented in Italy, and brought thence to England, napkins being used in this country by the polite, and fingers by the multitude.

THE GARDNER PATENT Sewing Machine



MANUFACTURED BY
GARDNER SEWING MACHINE COMPANY
Nos. 61, 63, 65, 67, 69, 71 and 73, James St.,
HAMILTON, ONT.

F. A. GARDNER, Mechanical Supt. F. M. WILLSON, Sec.-Treas. GEO. LEE, Business Supt.

THE GARDNER PATENT SEWING MACHINE

READ THE FOLLOWING DESCRIPTION.

In design, the machine resembles the Family Singer; but the principle of the working parts is entirely different, having no gear, and being as nearly noiseless as it is possible to make a Sewing Machine.

The UPPER tension is on the face-plate. The discs between which the thread passes are attached by a stud to the tension spring, which is flat and placed on the inside of the face-plate, its upper end secured to the arm, and is regulated by a thumbscrew in the face-plate.

The SHUTTLE MOVEMENT is obtained from the shuttle-cam on the shaft, which is designated as a "ball cam," working between the prongs of a fork which is pinned to the shaft of the shuttle-arm. This shaft is also made of steel, and securely fastened to the shuttle arm, which in a basket at the end carries the shuttle along the face of the shuttle-race, describing a radial movement which is conceded by all to be the best movement to prevent skipping stitches, the centrifugal force always keeping the shuttle firm to the face of the race.

The FEED derives its motion from the "feed cam" placed on the same shaft, the motion being transmitted through the eccentric rod and feed lever under the machine to the feed, which is made of steel, having a bearing its whole length, thereby preventing any twisting movement. To the end of the feed lever is attached a screw, which serves to give any required lift to the feed that may be necessary for light or heavy goods. The feed spring is also attached to the bed; it is flat, made of steel, and very durable.

The DURABILITY OF THE MACHINE cannot be questioned; the movements being all hardened, are not likely to get out of repair. The whole of the works are enclosed in the arm, which is finely secured to the bed-plate, and set upon a walnut top or enclosed in half or full cabinet case, as may be ordered.

It will be observed that there is no gear of any kind, and that all the motions are derived from the same shaft, - all the usual complicated shuttle and feed movements being avoided.

The TREADLE is adjustable, working upon "centres" in brackets which are fastened to the treadle-bar, giving a light easy motion without any noise or looseness, and can be adjusted to give any required "dip" to either toe or heel of the treadle, besides taking up the wear or loose motion.

The WHEEL BEARING. The wheel runs upon a tapered stud or bearing fastened to the side of the stand by a nut with the bearing end turned to a centre; the wheel is bored tapering to fit the stud; upon the front side of the wheel a steel plate is fastened by two screws, which bear against the centre of the stud; the plate is adjustable, and screws to draw the wheel upon the tapered stud, taking up the wear and yet running easy.

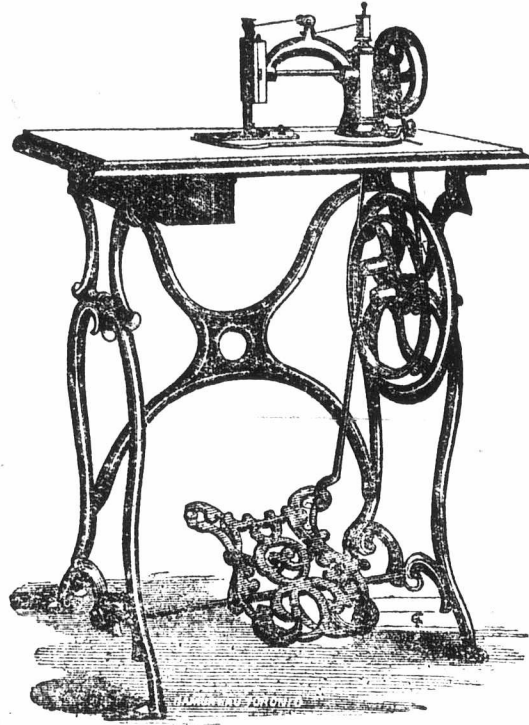
The GARDNER PATENT is fitted with all the latest and most improved attachments, comprising the following, which are furnished without extra charge:-

One silver-plated Sewing Gauge, with thumbscrew. One silver-plated Corder. One silver-plated Tucker. One silver-plated Friller. One silver-plated Hemmer, which will hem to any width. One Quilting Gauge. One Braider. One Screw Driver. One Oil Can. One Bottle Oil. One Spool Thread. Seven Cloth or Leather Needles. Six Bobbins. Extra Spring for leather work. Printed Directions.

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GATES' LOCK STITCH Shuttle SEWING MACHINE

For Family Use and Manufacturing Purposes.



Gates' Family (Singer) Machine, \$35.
Gates' Hand Shuttle Machine, \$25.
Gates' Hand Elliptic Machine, \$15.

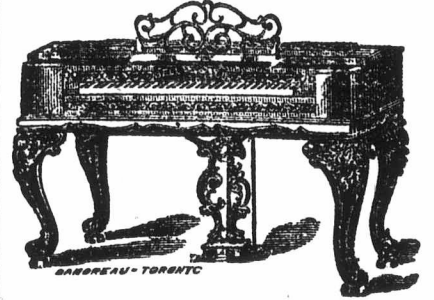
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Salesroom No. 14, King Street East Toronto.

These Machines Sew with two Threads, and make the Lock or Shuttle Stitch, which is regarded by Manufacturers, Tailors, and the masses generally, as the best suited to all kinds of work. Our Family Machines are especially adapted to all Household Sewing; also for Dress, Shirt Bosom, Cloak, Corset, Cap, Vest and Pantaloen Making; and will Hem, Fell, Tuck, Bind, Cord, Quilt & Gather in the most superior manner.

Awarded the Prize at the International Workman's Exhibition, at London, England, Nov. 1st, 1870.

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3. Strength, Firmness and Durability of Seam.
4. Wide Range of Applications to Purposes and Materials.
5. Excellence of Workmanship.
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7. Noiseless Movement.
8. Speed, Ease of Operation and Management.
9. It will work as well after five years constant use as on the day when purchased.
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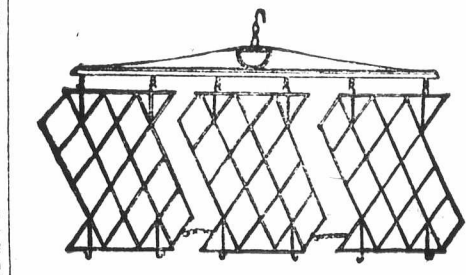
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They are giving entire satisfaction.

Price of Harrow complete, with three sections, treble-tree, and two coupling-trees, \$35.
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They are admitted by all who have used
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The Wheels are so arranged as to rise
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The Teeth are plated with steel, and are so con-
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FAVORABLE TERMS OF PAYMENT.

These Machines have the latest improve-
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and Workmanship, are simple in management, and

Extremely Light and Durable

They are recommended to parties in want
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FARMERS

before buying elsewhere,

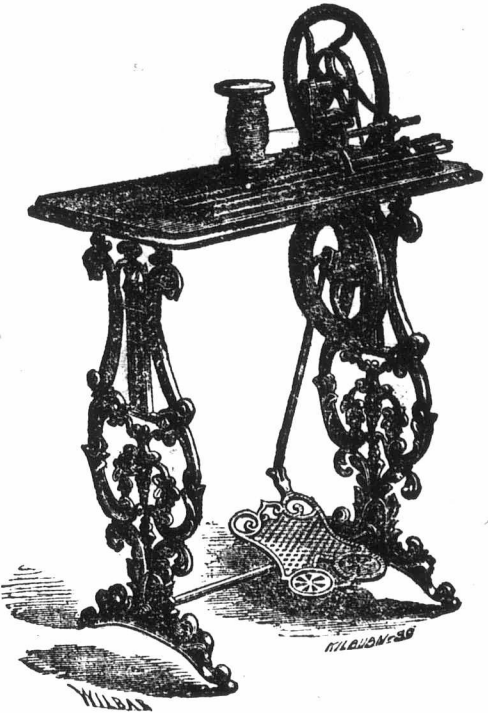
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Will do every stitch of the knitting in a Stock-
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LAMB'S KNITTING MACHINE.—An indis-
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TUNING AND REPAIRING
Promptly attended to.
Good Second hand Brass Instruments Bought, Sold,
or taken in exchange.
Note the address—
197 Yonge street, nearly opposite Odd Fellows' Hal
3-4f TORONTO.

Benjamin Plowman,
OF WESTON, would draw the attention of Man-
ufacturers and Machinists to his new Patent
process of HARDENING CAST IRON for all pur-
poses where such is required; and would supply
the trade with Plough Boards of their Patterns, on
moderate terms. To Farmers he would recommend
his Root Cutters, which took the 3rd Prize at the
Provincial Show this year, price \$14. His Ploughs
took extra Prizes with the hardened metal—Price
14 to \$18. May be procured at the Agricultural
Emporium, London: 12

D. REGAN,
SUCCESSOR to John McPherson & Co.,
Manufacturer, Wholesale and Retail Dealer
in Boots and Shoes, Farmer's Block, opposite
Strong's Hotel, Dundas Street, London, Ont.
April 1, 1870. 4-y-cu

CHARLES THAIN,
MANUFACTURER of Ploughs, Harrows, Cultivators, Thain's Double Mould Plough & Tur-
nip Sowers, Horse Rakes, Turnip Cutters, Churns, &c.
First Prize Double Mould Plough at Provincial
Show, Hamilton, 1868, at the Provincial Show, Lon-
don, 1869, and at Toronto Provincial Show, 1870.
First Prize Two Row Turnip, Carrot and Mangold
Drill, at the Provincial Show, Toronto, 1870.
Second Prize Two Horse Cultivator at the Provin-
cial Show, Toronto, 1870.
Third Prize One Horse Cultivator, Toronto, 1870.
All Orders promptly attended to by addressing
CHAS. THAIN, Eramosa Bridge, Guelph, Ont.

THE ARTIST PHOTOGRAPHER,
FRANK COOPER,
STUDIO RICHMOND STREET,
Near the Revere House, the place where the beau-
tiful "Rembrandt" is made.
London, May 1871. 71-5L 1

F. S. CLARKE, Richmond St., London,
Exchange Broker, Insurance Agent, and
Agent of the National Steamship Co.'y from
New York to Liverpool, calling at Queenstown.
Prepaid certificates issued to bring out from the
above places or Germany. 3-y

JOHN ELLIOTT,
PHENIX FOUNDRY.

MANUFACTURER of Stoves, Ploughs,
Reaping machines, Thrashing Machines,
Lap-Furrow Ploughs, Cultivators, and Gauge
Ploughs, &c., London, Ont.
Also, at Stratroy. 3-4f

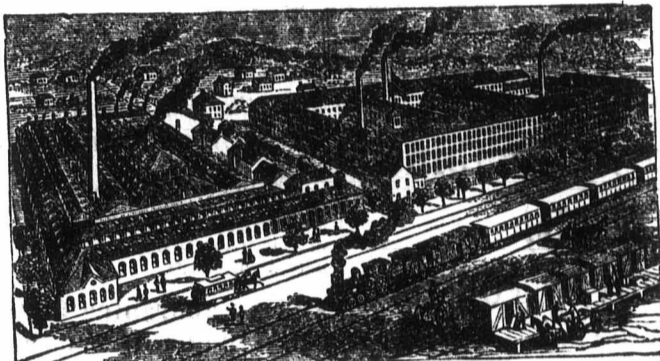
20 ACRES of good LAND for Sale.—
House, Orchard, &c. Two miles and a
half from the City. Apply at the Agricultural
Emporium, London, Ont.

FARMER'S ADVOCATE.

GREAT REDUCTION.

WHEELER & WILSON'S
SILENT MOTION
SEWING MACHINES.

OVER
HALF A MILLION
SOLD IN
All Parts of the World.



Wheeler & Wilson Sewing Machine Manufacturing, Bridgeport, Conn.
Front 368 ft., Depth 307 ft. Front 527 ft., Depth 219 ft.

THESE MANUFACTORIES
Are now capable of turning out over
120,000 MACHINES!!!
PER ANNUM.

Hitherto the facilities of the Wheeler & Wilson Manufacturing Co., great as they were, have been inadequate to supply the unprecedented demand of this favorite Machine. Recent extensive additions to the Company's manufacturing resources, however, enable them now not only to supply the demand of the world, but at a much cheaper rate. The public in Canada will now reap the benefit of these changes, and it is expected the present large reduction will increase the sale still more extensively.

Remember the chief points of excellence of this Machine. ITS REMARKABLE SIMPLICITY OF CONSTRUCTION, MAKING THE LOCK STITCH WITHOUT A SHUTTLE, HAVING ABOUT HALF THE FRICTION AND MOVEMENTS OF ANY SHUTTLE MACHINE IN THE WORLD. Hence its Great Durability, Quiet Movements, Easy Running and Speed. CATALOGUE AND REDUCED PRICE LIST POST FREE TO ANY ADDRESS.

G. A. WALTON, GENERAL AGENT,
54 JAMES ST., HAMILTON,
85 King Street West, TORONTO. 71-6-61 37 Spark Street, OTTAWA.

Spice!
CATTLE, SHEEP, HOGS AND ALL ANIMALS.
IN USE IN ENGLAND 14 YEARS!

TER'S
Machine.

INTENDING PUR-
CHING MACHINE

the only parties authorized
to sell this Machine in Ontario,
and for all other information as to
where it can be obtained:
W. WELLS, Agent, LONDON,
Hamilton,
O., County of Waterloo,
& Co., Fingal P. O.,
& Co., Clinton P. O.,
ER & STEWART,
Proprietors.
London. 71-9-31

NDON
BNESS & TRUNK
TORY.

pleasure in calling the at-
tention of Farmers to our
complete assortment of
HUNKS, HARNESS,
Gents' Valises,
WOOL MATS
combs, Brushes.
With a first-class Har-
ness, the best material and work-
manship, sold at the lowest cash
price.
JOHN STEVENSON,
100 Dundas Street, opposite City Hall.
71-5-7

main three miles of the
country, two Orchards, excel-
lent at the Agricultural Em-
p-

CABINET LAWYER
of Forms, with observations,
of Farmers, Merchants and
to draw their Deeds, Mort-
gages, assistance of a lawyer,
by mail to any address, on

AYLOR, & Co., London, Ont.

S's COCOA.—GRATEFUL
character of this
is a general favorite. The
remarks:—"By a thorough
and nutritious, and by a care-
ful selection of well-select-
ed ingredients, we have pro-
vided our breakfast ta-
ble with a beverage which may
be called the "Little Giant."
Sold only in tin-lined
cans. Epps & Co., Homoeop-
athic Dispensary, London.
12-y

J. BEATTIE & Co.,
IS the cheapest Dry Goods, Millinery
and Mantle Store in the City of London.
3-y

**C. D. HOLMES,
BARRISTER, & Co.,**
DUNDAS-ST., LONDON, ONT.
m-c

NOTICE.

MR. WM. WEBB manufactures and keeps con-
stantly on hand the Patent COMBINED PEA
HARVESTER AND HAY RAKE, a complete im-
provement. Price \$30.
Extract from Certificate:—
We, the undersigned, take great pleasure in re-
commending to the Farmers your Pea Harvester and
Hay Rake. Having used your Machine and seen it
used, would say we can pull from eight to ten acres
of peas per day with it as well as it can be done with
the scythe.
Yours respectfully,
James Corsort, S. A. Corsort, G. F. Ryland, John
Atkinson, J. C. Shoebottom, J. Campbell, P. Ander-
son, Wm. Simbert, A. Decker, Jos. Mitchell, D.
Y. Decker, Wm. H. Telfer, A. Dievar, M.R.C.S.L.,
Thos. Hodson, Wm. J. Howard, R. Porter, Wm.
Tears, Geo. Walker, James Howard, Fishwick Loft,
James Hynes, all of the Township of London.
For Machines address WM. WEBB, London, or
call at the Manufactory, opposite Mr. John Elliot's
Foundry, Wellington Street.
London, May 1, 1870. 5fu

**ABBOTT BROS.,
CARRIAGE BUILDERS**
Dundas Street, East of Wellington Street,
LONDON, ONTARIO.

**LONDON PUMP
AND
Fanning Mill Factory,**
BATHURST STREET, LONDON, ONT.

J. M. COUSINS manufacturer of Im-
proved Force and Lift Pumps, Fanning
Mills, and "Little Giant" Straw Cutters.
Pumps repaired, Wells dug and Cisterns built.
12-f

GEO. RAILTON,
AUCTIONEER & COMMISSION MERCHANT,
Hiscox's Block, Dundas Street, LONDON, ONT.

MR. RAILTON begs to announce that he is pre-
pared to receive Goods, Wares and Merchandise for
Sale on Commission. Any property consigned to
him will be sold to the best advantage; and prompt
CASH RETURNS upon all his transactions.
Cash advanced upon Household Furniture and
Effects put in for immediate sale. Country Sales
of Farm Stock, Agricultural Implements, &c., &c.,
promptly attended upon liberal terms.
Mr. R. respectfully solicits a trial, feeling confi-
dent that his mode of business will merit approval.
References kindly permitted to Messrs. E. Adams
& Co., John Birrell & Co., W. & J. Carting, A. &
J. G. McIntosh & Co., Murray Anderson.
London, 24th Oct., 1870. 11-y

**PLUMMER & PACEY'S
WAGON and Sleigh Factory,** Ridout
Street, London, Ont. Their machinery
is more perfect and complete than ever, in con-
sequence of which they are able to turn out
work, both in quantity, quality and cheapness
sufficient to surprise every one not posted up in
the improvements of the age. A general im-
provement of Hubs, Spokes and Bent Stuff, and
any kind of wood work for Wagons, Sleighs,
Horse Rakes, &c., always on hand. m-c

**POULTRY.
EGGS FOR HATCHING.**

Having spared neither pains nor expense in pro-
curing really choice Fowls from Europe and the
United States, I will now dispose of a few Settings
of Eggs of the following varieties, all of which I
guarantee pure.
WHITE AND GREY DORKINS, BUFF
COCHINS, LIGHT AND DARK BRAHMAS,
Golden and Silver-Spangled, Silver
and Golden Pencilled and Black
Hamburgs,
BLACK SPANISH, WHITE LEGHORNS
Black, Red and Duckwing Game,
SILVER, SEBRIGHT & WHITE BANTAMS
AYLESBURY AND ROUEN DUCKS.
J. PLUMMER, Jr.
London, Oct. 31, 1870. 11

THE
**Agricultural Mutual
ASSURANCE ASSOCIATION
OF CANADA.**

HEAD OFFICE. - - LONDON, ONT.
Licensed by the Dominion Government.

CAPITAL FIRST JAN., 1871,
\$231,242 25.
Cash and Cash Items, \$72,259 55.

THIS COMPANY continues to grow in the public
confidence. On 1st January, 1871, it had in force
34,528 POLICIES,
Having, during the year 1870, issued the immense
number of 12,319 Policies.
Intending insurers will note—
1st—That this is the only Fire Mutual in Canada
that has shown its ability to comply with the law of
the Dominion, and deposit a portion of its surplus
funds for the security of its members,—\$25,000 hav-
ing been so deposited.
2nd—That being purely mutual, all the assets and
profits belong solely to the members, and accumu-
late for their sole benefit, and are not paid away in
the shape of dividends to shareholders as in the
case of proprietary companies.
3rd—That nothing more hazardous than farm prop-
erty and isolated dwelling houses are insured by
this Company, and that it has no Branch for the in-
surance of more dangerous property, nor has it any
connection with any other company whatsoever.
4th—That all honest losses are settled and paid
for without any unnecessary delay.
5th—The rates of this Company are as low as
those of any well established Company, and lower
than those of a great many.
6th—That nearly four hundred thousand dollars
have been distributed by this Company in satisfac-
tion of losses to the farmers of Canada during the
last ten years.
7th—That the "Agricultural" has never made a
second call on their members for payments on their
premium notes.
8th—Farmers patronize your own CANADIAN
Company that has done such good service amongst
you.
Address the Secretary, London, Ont.; or apply to
any of the Agents. m-y

**CURRIE
BOILER WORKS**

Manufacture all kinds of
AGRICULTURAL, Stationary & Portable Boil-
ers, Oil Stills, Worms, Agitators, Iron Boats,
Bridge Girders, Tanks, &c.
New and Second-hand Boilers for Sale.
Works on the Esplanade, Foot of Church Street
TORONTO.
8-y NEIL CURRIE, Proprietor.

**J. H. WILSON,
VETERINARY SURGEON,**
Graduate of the Toronto Veterinary College.
Office—New Arcade, between Dundas street and
Market Square. Residence—Richmond street,
opposite the old Nunnery.

References—Prof. A. Smith, V. S.; Dr. Varley
V. S.; Dr. Laing, V. S.; Dr. Bovel, M. D.; Dr.
Thorburn, M. D.; Dr. Rawsh, M. D., and Dr. Nisnal
all of Toronto. Dr. McKenzie, M. D., and J. Dul-
mage, of London. 4-17

JAMES FERGUSSON & Co.
PORK PACKERS,
KING STREET. - 12y - LONDON, ONT.

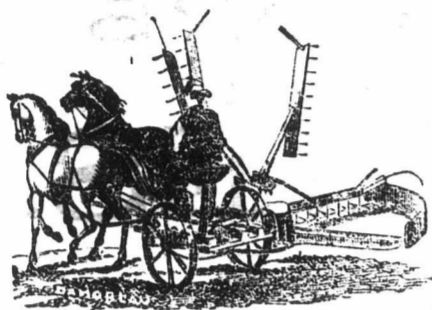
**Toronto Nurseries
G. LESLIE & SON,
PROPRIETORS.
EXTENT, 150 ACRES**

The Stock embraces Trees, Plants and Flow-
ers, suitable to the climate, which we can pack
to carry safely to any part of the world.
Priced descriptive Catalogues sent to all appli-
cants enclosing a two cent stamp. Address
GEO. LESLIE & SONS,
Toronto Nurseries,
Ladbroke P. O., Ont.
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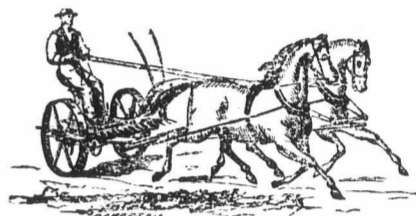
THE JOSEPH HALL MACHINE WORKS

OSHAWA, - - - ONTARIO,

ESTABLISHED 1851.



The Joseph Hall Manufacturing Company
PROPRIETORS.



WE DESIRE TO CALL ATTENTION TO OUR
**Number One and Two Buckeye Combined
REAPER AND MOWER,**
WITH JOHNSON'S SELF RAKE IMPROVED FOR 1871.

We believe this Machine, as we now build it, to be the most perfect Reaper and Mower ever yet offered to the public of Canada.

Among its many advantages we call attention to the following:—

It has no Gears on the Driving Wheels,

Enabling it to pass over marshy or sandy ground without clogging up the gearing, thereby rendering it less liable to breakage. It is furnished with

Four Knives, Two for Mowing and Two for Reaping, one of which has a sickle edge for cutting ripe, clean grain, the other a smooth edge for cutting grain in which there is grass or seed clover.

It has malleable guards both on the Mower Bar and Reaper Table, with best cast steel Ledger Plates. It is also furnished with our

New Patent Tilting Table for Picking up Lodged Grain.

This is the only really valuable Tilting Table offered on any combined Reaper and Mower.—
The Table can be very easily raised or lowered by the Driver in his Seat without stopping his Team.

This is one of the most important improvements effected in any Machine during the past two years.

Any one or all of the Arms of the Reel

Can be made to act as Rakes at the option of the Driver, by a Lever readily operated by his foot. The Cutting apparatus is in front of the Machine, and therefore whether Reaping or Mowing, the entire work of the Machine is under the eye of the Driver while guiding his team. This Table is so constructed as to

Gather the Grain into a Bundle before it leaves the Table, and deposit it in a more compact form than any other Reel Rake.

The Table is attached to the Machine both in front and rear of the Driving Wheel, which enables it to pass over rough ground with much greater ease and less injury to the Table. The Grain Wheel Axis is on a line with the axle of the Drive Wheel, which enables it to turn the corners readily.

The Rakes are driven by Gearing instead of Chains, and therefore have a steady uniform motion,

Making them much less liable to breakage on uneven ground, and more regular in removing the grain. The Gearing is very simple, strong and durable. The Boxes are all lined with

BABBIT METAL.

The parts are all numbered, so that the Repairs can be ordered by telegraph or otherwise, by simply giving the number of the part wanted.

There is no side Draught in either reaping or mowing, and the Machine is so perfectly balanced that there is no pressure on the horses' necks either when reaping or mowing. All our malleable castings, where they are subject to much strain, have been

Twice annealed, thereby rendering them both tough and strong.

OUR JOHNSON RAKE

Is so constructed as to raise the cam so far above the Grain Table that the Grain does not interfere with the machinery of the Rakes or Reels.

We make the above Machine in two sizes:

No. One, large size, for Farmers who have a large amount to reap.

No. Two medium size, for Farmers having more use for a Mower than for a Reaper.

With the exception of difference in size, these Machines are similar in every respect. Our No. 2 Machine supplies a want heretofore unfilled, viz.: A medium between the Jun. Mower and large combined Machine, both in size and price. We shall distribute our sample machines in March among our Agents, that intending purchasers may have an early opportunity of examining their merits.

And we guarantee that all Machines shipped this season shall be equal in quality and finish to the samples exhibited by our Agents.

We invite the public to withhold giving their orders until they have had an opportunity of inspecting our Machines, as we believe that they are unsurpassed by any other Machines ever yet offered on this continent.

We also offer among our other Machines:

Johnson's Self-Raking Reaper, improved for 1871, with two knives, smooth and sickle edge, and malleable guards.

Wood's Patent Self-Raking Reaper.

Buckeye Reaper No. 1, with Johnson's Self Rake.

Buckeye Reaper No. 2, with Johnson's Self-Rake.

Ohio Combined Hand Raking Reaper and Mower.

Cayuga Chief, Jr., Mower.

Buckeye Mower No. 1.

Buckeye Mower No. 2.

Ball's Ohio Mower, No. 1.

Ohio, Jr., Mower.

Taylor's Sulky Horse Rake.

Farmer's Favorite Grain Drill.

Champion Hay Tedder.

AND OUR CELEBRATED

HALL THRESHER AND SEPARATOR

Greatly improved for 1871, with either Pitt's, Pelton, Planet, Woodbury, or Hall's 8 or 10 Horse Power. We shall also offer for the Fall trade a

NEW CLOVER THRESHER AND HULLER,

Very much superior to any other heretofore introduced,

A new and complete Illustrated Catalogue of all our Machines is being published, and will be ready for early distribution, free to all applicants.

All our Machines are warranted to give satisfaction, and purchasers will have an opportunity of testing them both in Mowing and Reaping before they will be required to finally conclude the purchase.

For further information address—

F. W. GLEN,

PRESIDENT,

OSHAWA, ONTARIO.