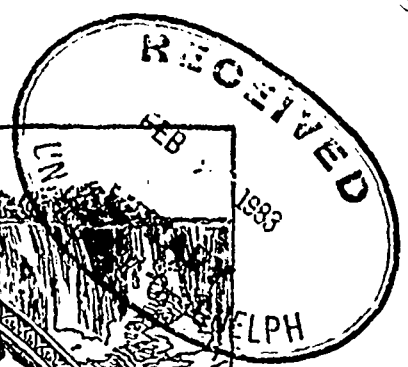


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1884



John Varcoe

AND ORGAN OF THE ONTARIO BEE-KEEPERS' ASSOCIATION.

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No. 44 | 304

WELLAND, ONT., WEDNESDAY, JULY 9, 1884.

TERMS: ONE DOLLAR
Per Annum
IN ADVANCE

NETHERLAND (H. H. Bk. 32)

We present to our readers in this issue, a fine portrait of the imported Holstein cow, Netherland Dowager, (H. H. Bk., 2632) imported and owned by Messrs-Smiths & Powell, Syracuse, N. Y.

She was calved March 1874, and is therefore 10 years old and a grand specimen of a Holstein. Her sire was a district bull of Beemster, and her dam Oude Schemmel has a record of over 80 lbs in a day.

Netherland Dowager gave in Holland, just before importation 91lbs in a day. The first season in this country after importation, and before she was acclimated, she gave 12,734 lbs., 2 oz.

Netherland Gem, a daughter of Netherland Dowager gave, as a two-year-old, 7,695 lbs., 11 oz., in eight months and twenty days, at which time she was sold for \$1000.

The Lakeside herd, of which Netherland Dowager is a member, now numbers over seven hundred head, having been increased this year by importations of about four hundred head of the best specimens that could be found. Every animal was selected by a member of the firm in person, a fact that is a guarantee of their high quality and excellence.

We would advise any of our readers who may be interested in this justly popular breed of cattle, to visit this herd, or at least correspond with Messrs. Smiths & Powell.

ted singly in small-sized pots. In stopping cucumbers, we often put the pieces taken off, in round the margin of the mounds, and can always find young plants when any are wanted. Rooting them in pots is also a very good plan; it is astonishing how quick they strike root into any light, sandy mixture and from pots they are easily transferred to the fruiting beds. The cuttings being made of shoot-bearing small fruits, these very often remain fresh and good, and swell up immediately they are planted out. It is in this way plants from cuttings bear fruit so soon and freely, as they do not make long

case of almost every kind of cucumber where numbers of plants are grown, one or more will come better than the rest. The only way, therefore, of securing more of the same sort is to resort to cuttings. In raising plants for late autumn and winter fruiting, the cutting plan is by far the best. Cuttings can be taken from the most fruitful of the summer plants, and plants thus raised will be very short-jointed and fertile, while seedling plants might be rambling over the trellis.

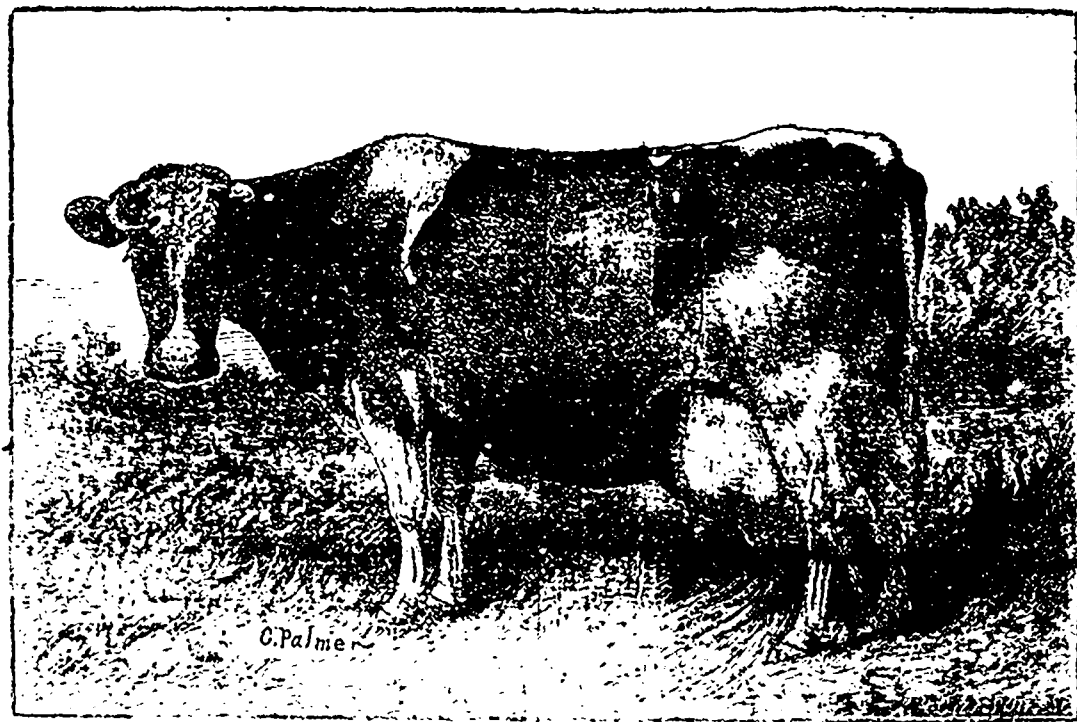
PEA BUGS.

Coal oil will destroy the festive pea-bug. It is a specific for the purpose. A gallon

The bed should receive a little water at first, or just enough to make the soil moist; then take them up and transplant, using a sharp-pointed stick, called a dibble, for making the holes and pressing the soil against the root of each plant as set. The plants should be set about four inches apart each way, or if one has plenty of room they may be set in rows, and wide enough apart to admit of hoeing between; but the former is the more usual practice, and answers the purpose well, for the principal object of transplanting is to give them sufficient room for growth until the plants are wanted later in the season for

setting out in rows, in places where they are to be cultivated, and the stalks blanched and prepared for home use or the market. After transplanting, it is well to apply water sufficient to settle the soil about the roots and prevent the leaves wilting. Celery plants treated in this manner can always be removed later in the season without danger of loss, and their growth will be checked but slightly, if at all, by removal even in dry weather, provided the soil about their roots is moist when they are taken up.

HAY MAKING.—Hay is valuable in proportion to the quantity of sugar and albumen it contains, which makes it, when properly handled, a sweet and palatable food for animals. The period of cutting is of



CUCUMBERS FROM CUTTINGS.

When once a few cucumber plants have been raised and become large, the best way is to propagate them from cuttings. Cuttings are very easily rooted and they begin to bear immediately. They will produce fruit fit for cutting in half the time plants from seed will. We have cut good fruit from cuttings when three weeks old. The best parts to make cuttings of are the ends of the young fruiting shoots. As it is often necessary to stop these, the pieces taken off may be made into cuttings in the ordinary way. They may then either be placed in the mounds of earth in which the old plants are growing, or pot-

stems like the seedlings before emitting side shoots on which the fruit is borne, and the main stems of the cutting plants fruit too, some being produced only an inch or two from the soil.

As a rule, seeds of new and valuable cucumbers are sent out in very small quantities, half a crown for a dozen seeds being no unusual price, and when half of these are bad or fail to germinate, the cultivator may be put to some little inconvenience on account of the smallness of his stock; so long, however, as I had one plant of any kind, I would not trouble myself about seed failures, or more seed, as I could raise plants by the dozen, if necessary from cuttings. In the

and a half of coal oil is sufficient for sixty bushels. The seed to be purified of bugs is spread in the bottom of a bin to the depth of a few inches. Then with a fine watering-can, the spout of which is flattened and perforated on the under side with fine holes and the oil is applied. Very little does for a depth of three inches; the rake soon covers all the peas with a coating of oil. Then a second layer is put on and similarly treated.

TRANSPLANTING CELERY PLANTS.—As soon as celery plants are an inch or two high they should be transplanted. Merely moving them in the same bed will answer fully as well as setting them out elsewhere.

importance. If grass is cut when richest in sugar, it will make, when cured, the most digestible food for animals. It will then be greedily consumed, leaving no waste in the manure. Such hay will fatten stock readily, and will keep in good condition work animals, with but little other grain for feeding. The proper period for cutting grass is when the blossom in clover has turned a trifle brown, and when the flowers begin to fall in timothy. Of course this cannot always be done. Other work may interfere, or storms may occur and prevent us cutting at the proper time. When grass is cut too green it will make a rank, green hay; if cut too ripe, it will be woody.

STOCK.

HOLSTEIN CATTLE.

J. M. STAHL, TEXAS, "FARM AND RANCH."

These cattle are often called Holsteins, and while Friesians is the more proper name, both are allowable.

For years stockmen have been talking and writing of the "all purpose breeds." Some breeds were specialties, as the Jersey for butter, the Durham, Devon or Polled Angus for beef, and the Friesians for milk. The excellence of a breed of cattle is to be found in its beef, milk or butter; and while some breeds distinguished themselves in some departments so much more than in the others as to give them a reputation relating to but that one department, none was sufficiently productive of beef, milk and butter, as to give it the reputation of an all purpose breed. In fact, it was claimed that no breed could be distinguished in the production of all three, and that breeds must always remain specialties. The search for an all purpose animal was denounced as silly and chimerical. The erroneous assumption that beef production and milk production are antagonistic was made and accepted as truth. As a result, it was one of the tenets of stockraising, that the better an animal was for the butcher, the worse it was for the dairyman. Some breeders of Shorthorns claimed that this breed was a near approach to the one of general excellence sought, being an undisputed beef breed, and also yielding large quantities of milk, of good quality. But it was shown with much flourish of trumpets, that those strains of the Short-horn breeds which were noted for beef were poor milkers; and those noted for milk were inferior beef animals.

The breeders of fancy animals thus discouraged, rather than encouraged, the introduction or development of an all purpose breed. But the farmers, the "common herd" of stockraisers, did not give up the quest. They were greatly desirous of finding the all purpose breed. The farmer wanted a cow that would produce a calf that, if a steer, would grow into profitable beef; if a heifer, would yield a large amount of milk, and when the time came, would fatten into profitable beef. And when he chose, this cow was to yield an abundance of milk, and then, like her female and male progeny make good, profitable beef. It is neither convenient nor profitable for him to keep a breed that yielded only beef or milk alone. And it was troublesome and expensive to keep two or more distinct breeds upon the same farm. What he wanted he failed to obtain by crosses, and if the all purpose animal is found it must be of a recognized breed. The scrub may be said to be a no purpose animal as often treated.

That a strictly all purpose breed is found I am not ready to say. But some facts lately brought to light would give the Friesians by far the best claim to the title.

That the Friesians were entitled to the first place as milk and cheese animals has never been disputed. Their yield of milk has never been surpassed, and is peculiarly well adapted to the production of cheese. Their average period of milk giving is 300 days—as long as desirable—and it may be continued longer. In fact, it is frequently difficult to stop the flow of milk as the season for calving approaches. In one of the three great divisions of production, then, they hold the first place.

But, while the quantity of milk was acknowledged, it was held that in the

butter elements it was so sadly deficient the the Jerseys, which gave far less milk, were the superior butter cows. Lately the butter production of Friesian cows has been published, and all parties were surprised to find that in this point they had surpassed the Jerseys. This stimulated to other tests, and these have demonstrated that in butter production the Friesians are the equals, if not the superiors, of the Jerseys. It was claimed by some that the butter made by the Friesians was not so good as that made by the Jerseys; but at several prominent fairs, where the breed represented by the butter was unknown, that made of milk from Friesian cows has taken first premium. In fact, it would be hard to understand how any difference in the quality of the butter could exist if the cows received the same quality and kind of food, the milk being set in water at the same temperature, skimmed, acidified, churned, salted and worked alike. Thus, in the second grand division of production the Friesians are unexcelled, if they are not unequalled.

But how as to beef? Here is the weakest point of the Friesians. We can say that for milk, cheese and butter, they are not surpassed, in any particular, by any breed; but I do not think it correct to say that they are fully the equal of the Shorthorns or Devons, in beef production. I know that some enthusiastic breeders assert that in the production of beef they are unexcelled; but I think this is putting too high an estimate upon this quality of the Friesians. For the first eight or nine months Friesian calves gain in weight equal to the Short-horn; but their growth does not continue so long and steadily. The Friesians weigh, on an average, about 1,200 pounds. They fatten easily, and their beef is of good quality. Yet they will never be the best beef breed, though always a good one.

Their first use is for the dairy, and their value and desirability is enhanced by the fact that the males can be profitably fed for the butchers' block, and that the females, when no longer wanted in the dairy, can be made into profitable beef.

The Friesians are not dainty animals. In this respect they are far more desirable than the Jerseys. They will eat coarse, rough food which the Jerseys would not touch. They are also more hardy and less affected by vicissitudes of weather. In the hot summer time they will browse steadily along while the Jerseys will huddle under some tree. They are good eaters, and good eaters make good milk and beef producers.

The Friesians have been carefully bred for five hundred years, and therefore are a well established breed, and such a long line of decent makes them true and strong breeders. The offspring of a Friesian and other animal always partakes more largely of the characteristics of the Friesian, though that other animal be a Jersey.

VICIOUS HORSES.

Vicious horses are not desirable anywhere, but if there is one place more than another where they are not wanted, and where they should not be found, it is on a farm. In the different work that horses have to perform in farming it is often the case that horses have to be handled by several different persons; during the season, and often by boys or men who incompetent. A horse with a bad disposition is not slow to understand whether he or the one who handles him is to be the boss, and when the least opportunity is afforded

they are not slow to take advantage of it. Reports of men or boys being killed by such animals are quite frequent, and other mischief that they do is as often heard of or experienced. It is generally taking great risks of personal injury or of injuring others by keeping such animals on the place, and unless they have some redeeming qualities it is far better to part with them even at a sacrifice. The best place for a horse that is not perfectly gentle and reliable is in teams in the cities where they have constant work, and where they have the same master day after day, and the sooner they find their way to such positions the better it is for them and all concerned.

THE SHORT-HORN STILL.

The following paper was read before the Fulton Co., Ohio, Shorthorn Association by W. D. Crout, an authority upon the subject:

It must be admitted that the Short horns present themselves to notice under circumstances of peculiar interest, possessing in an eminent degree qualities which have generally been considered almost faultless, combining fine forms, fine color, early maturity and compactness, and giving the greatest weight in the smallest superficies. As milkers, they were primarily considered most excellent, and where bred to milk exclusively, can produce as fine records as any breed, combining both quality and quantity. Indeed, the point of excellence which first brought them into such favorable notice was their extraordinary milking qualities, combined with fine, mellow skin and flesh and great aptitude to fatten. It is a noteworthy fact that in the animal economy those which possess an excessive secretion of flesh and fat should also be productive of other rich secretions. Wherever any of the milking strains of Short-horns have been crossed with other cattle their superiority is equally manifest in respect to dairy qualifications, as in every other, and they have successfully pioneered their way into every country known where agriculture has attained any advanced standard.

That animals which have been bred pure are much more excellent than any alloy, we have indubitable evidence, and many attempts have been made by breeders to produce something, if possible, superior to the Short-horn, which attempts have ever been signal failures. Calley, an English historian, tells us that an attempt was made by an importation from Holland of the Dutch cattle which are playing so prominent a part in the recent American cattle "booms," and many were led astray thereby, but says also "that there were some intelligent breeders who steered clear of this evil, and from them the pure Short-horn breed have descended to the present time." Mr. Bailey, another English historian, says in his Agricultural Survey, that as far back as 1740 "an attempt was made to improve the Teeswater breed, more in regard to size than anything else, by a Mr. Michael Dobison, of the Isle near Sedgfield, and brought home from Holland a complete spotted or pied animal with immense buttocks which did a deal of mischief," but some intelligent breeders steered clear of the evil." History seems to make it plain that any attempt ever made, other than by a close confinement to purity, has always resulted disastrously. That for many centuries they have been bred and held the most prominent position of all cattle, we think that none can candidly doubt. Of their great antiquity, a

prominent English historian says: "At what time the Short-horns were brought to these Danish counties in England is unknown, but it is probably as many as seven or eight centuries since. There is a cow sculptured on the west corner tower of the eastern transept of the cathedral of the city of Durham, commemorating a tradition as to the cathedral, and in every respect the offspring represents a Short horn cow." As to quality of beef, none at this date do otherwise than concede to them the greatest point of excellence which combined with their great weight of carcass and small offal, renders them superior to all other breeds for the butcher's block. As regards some of the great weights anciently, Mr. Youatt says: "The circumstance which brought the Short-horns into the most extensive notice was the production of the Durham ox, an animal which speaks volumes in favor of the blood, which at five years old was on exhibition near Bedale, and whose weight reached the enormous sum of 3,024 lbs., and was computed to weigh of dressed meat 2,362 lbs. "Mr. Robert Colling's heifer, which was exhibited as a curiosity, was estimated to weigh at four years old 1,820 lbs. That from time to time other breeds have attempted to rival them is well known, and the fact of their standing today without a rival for general purposes, is accounted proof positive of their general appreciation by the public at large.

Coming down to more modern times, the verdict of to-day among breeders in all the best localities, such as Illinois and the Kentucky blue grass regions, is that the Short-horn as a beef-producing animal is in no fear of yielding the palm to any other breed. Taking this in connection with the shortage of English beef production, which shows a falling off of 162,011 head from 1876 to 1882, it is plain to see that the demand upon the country must continue and rapidly increase, and that means gold prices in the future for the cattle raisers in this country. That the prices of Short-horns continue to hold well and not depreciate, is evidenced by the public sales of the past summer; the one of Pickrell, Thomas & Smith, of Harri town, Ill., where sixty females averaged \$550 per head, and fourteen males, \$310.

In conclusion, let me say to my brother breeders, let us maintain this standard of excellence by every means in our power, and in no case depart from a pure and undiluted line of breeding. As to pedigree, be as exacting as you please, but be careful that the animal possesses those qualities demanded by the rush and push of the age, and success will ever be ours.

Rum it is said may be soundered by feeding them rye. When ground and fed with oats, it is not so injurious.

Our flocks of sheep must be improved in two ways, first, by good feeding, second, by the use of good males. Raise sheep for wool and mutton. Either will pay.

Food for hogs should not be diluted too much. If it is the hogs take in so much water that there is not room for nutriment. Sour milk is in a sufficient state of dilution, and a farmer who feeds his hogs nothing but pure sour milk will have good hogs; but one who feeds his hogs on slops will have big-bellied, poorly nourished, poor-producing hogs. A hog ought to live without drink, but he wants food without so much water.

FAMILY CIRCLE.

THE FARMER'S WOOING.

The daisies nodded in the grass, the buttercups were sleeping,
And just across the river sang the farmers at their reaping;
Upon the hills so blue and fair, the maple leaves were showing
Their soft white beauty in the breeze that from the sea was blowing.
A little maid came through the lake with song and rippling laughter;
The buttercups made way for her; the daisies nodded after.
A strong young farmer saw her pause beside the parting river;
She drew a lily from its depths, with golden heart a quiver.
"Thou art more fair than lilies are," said he with hand uplifted,
And throw a poppy as the stream toward the maiden drifted,
She set the flowers in her hair, the red and white together;
A cloud grew black before the sun, and rainy was the weather.
He came across the river then, the farmer from his mowing;
He minded not the water's depth, he cared not for its flowing.
"O, love," he said, "if gloaming sun and cloudless skies o'er lean us,
The river's barring width may roll, unpassed, untried between us;
But when the loud thunder fills the air, and clouds and rain come over,
I'll cross the ocean to your side, I am no fair day lover!"
And so one day the village bells rang across the river;
Their music set the buttercups and daisies all a quiver;
While some one drew a lily from the stream so blithely flowing,
And plucked a blood red poppy that amid the wheat was growing.
The maiden set them in her hair, the red and white together,
With many a smile, a tear or two, and glances at the mother.
They passed beneath the chapel's shade the farmer and the maiden,
Whose arches crossed above their heads, with snowy blossoms laden,
And in that place of holy calm the blinding words were spoken;
He in the heart bore out the truth, she on her head the token.
The years went by, and some were bright, and some were clouded over;
But ever stood he at her side; he was no fair day lover.

PURE DRINKING WATER.

This matter of pure water to drink, is vital, vital, VITAL to the well being of farmers. It may be the fate of all delicate, "pecked" children to die, but these are the ones that the mothers, at least, love best, and there is a vital deal of reuding of over the hearts sickness and death of the delicate ones, young or old which might at least be postponed for many years, if they and we had pure water to drink. Wells near barnyards or within two or three hundred feet of them, sometimes contains the gems of disease and death. The old fashioned privy vault, fifty times more dangerous, is usually nearer the house and the well, and contrived, as if by the "arch-enemy," as an unfailing source of malarial poison, of diphtheria, typhus and typhoid fevers, and the evils that follows in their train. There ought to be state laws forbidding the existence of the privy vaults, or even of cess-pools, except perhaps, cemented cisterns, through which a regular flow of water is maintained.

No system was ever devised equal to the Mosaic, (Deut. xiii, 12, 13 and 14,) but that is particularly adapted to a nomadic people, although I have met with it in Louisiana and Kentucky, and know it is the rule in Texas, where the abomination alluded to has never existed, except to a very limited degree.—Ex.

EATING LEMONS.

A good deal has been said through the papers about the healthfulness of lemons. The latest advice is how to use them so they will do the most good, as follows: Most people know the benefit of lemonade before breakfast, but few people know that it is more than doubled by taking another at night also. The way to get the better of a bilious system without blue pills or quinine, is to take the juice of one, two or three lemons, as appetite craves, in as much water as makes it pleasant to drink without sugar, before going to bed. In the morning on rising, at least half an hour before breakfast, take the juice of one lemon in a goblet of water. This will clear the system of humor and bile with efficiency, without any of the weakening effects of calomel or Congress water. People should not irritate the stomach by eating lemons clear; the powerful acid of the juice, which is always most corrosive, invariably produces inflammation after a while, but properly diluted so that it does not burn or draw the throat, it does its medical work without alarm, and when the stomach is clear of food has abundant opportunity to work over the system thoroughly, says the medical authority.

HINTS ON HANDLING FRUIT IN THE KITCHEN.

In hulling strawberries do not put a drop of water on them unless compelled to by the earth clinging to them. In that case have a basin of ice-cold water at hand and before pulling them, dip them, and out again. In preparing them for the table or for canning, take all the small, green or broken berries out; put them, with their weight of sugar on a cool part of the range, and let them simmer until the juices are all extracted. Then strain, and bottle, sealing tight. This is a good way to do with all kinds of berries or fruits; it makes a delicious flavoring for pudding sauces, cakes, etc., and also an addition to a glass of water. A rich, ripe banana to two quarts of strawberries, and cut in slices through the berries, is an addition that will be liked by almost every one.

In canning berries, I put the berries and the amount of sugar which I use over them in the cans, set them in cold water, and let it boil only sufficiently for the sugar to be melted and the juice to look clear. Fill them to the top from other cans, and be sure they are air tight. Then put them away in a cool, dark place.

CHERRY JAM.—To each pound of cherries allow three-quarters of the best white sugar. As you stew them, throw them into the sugar, and let them stand all night. Next day, boil them slowly until they form a thick, smooth mass.

CHERRY JELLY.—Take large, fine, juicy red cherries and stew them, saving carefully every drop of juice. Take half the stones and crack them, taking the kernels and putting them with the cherries and the juice into a preserving kettle. Let them boil slowly for half an hour. Transfer to a jelly bag, and squeeze out all the juice, and allow a pound of white sugar to every pint of juice. Let the sugar dissolve slowly, and then boil twenty or thirty minutes. Put it away in tumblers or bowls, and cover it with paper that has been oiled or dipped in a little brandy.

RHUBARB AS AN ADJUNCT.—When making a strawberry or raspberry tart, if you have not enough of the fruit, take rhu-

bark and clean and stew. When cold, to a quart of rhubarb add a pint of berries, and you will be surprised to see how the flavor of the rhubarb is concealed by the fruit. It is one of the peculiarities of rhubarb that it imbibes all flavors. In making home-made wines, it will be found invaluable. You can prepare a preserved ginger from it, flavoring it with orange, lemon, or almond. Boil rhubarb and currants together,—either red or black—and strain, and you have currant jelly. Flavor the simple juice of rhubarb with lemon peel and stick cinnamon, and you have fine quince jelly. Then again, boil the simple juice with brown sugar, only adding a small quantity of molasses, letting it get quite dark and thick, and you have the very best coloring for gravies and soups. Boil some juice with an equal quantity of white sugar and some red currants and strain it. Then, boil again, drop in singly some ripe and large strawberries, and you will have a delicious addition to your winter fruits. The possibilities of rhubarb are quite wonderful. There is only one important thing to be remembered; for mixing with other fruits you must first extract the juice by boiling it without sugar, and then strain, add the desired quantity of sugar and go on with your process.

FASHION NOTES.

The ginghams and piques this season are much trimmed with Hamburg edging. On some are seen ruffles of Hamburg, headed by a wide band of inserting. The piques are very elaborate with embroidery.

The princess dress, fastened to a smoothly fitting body, will be a favorite costume for the mountains and seashore. Dark blue lady cloth is the material mostly used. The skirts are made wider this season and very full in the back.

MATERIAL used for bridal toilets are white satin and brocade, embroidered crepe de chine, Surah silk and Ottoman and India silks. Magnificent fronts of pearl beads and hand embroidery are used with these silks to complete a grand costume.

USTERS and dolmans made of serge and light qualities of cloth are used for summer voyaging. The dolman is more used, as it admits of being donned or doffed with ease and worn with comfort. The chuddah stauls are much sought after by ladies who travel.

New patterns in real laces show most charming effects in feathers with curled edges—sickles with sheaf in the centre, and large roses beyond. The sickles are formed of starry figures set close together, and there are also oval wreaths of daisies holding clusters of grass and wild flowers, and long stalked lilies filled in with long leaves and much finework. Duchesse lace is now filled in solid, the holes which formerly disfigured and gave it a flimsy appearance are not allowed to appear.

RECIPES.

CORRAIE PUDDING.—One tablespoonful of butter, one egg, one cup of sugar, one cup of sweet milk, one pint of flour, two teaspoonfuls of baking powder, to be served hot with sauce made of one-half cup of water, one-half cup of sugar, one teaspoonful of corn starch to thicken, nutmeg or vanilla to flavor.

MOCK MINCE PIES FOR SUMMER.—Four soda crackers, two cups of hot water, two cups of sugar, one cup of molasses, one-half cup of butter, one-half cup of vinegar, one teacupful of stoned raisins. This will make two pies.

ORANGE CAKE.—An orange short cake helps to give variety now, when apples are becoming tasteless and the housekeeper's stores of canned fruit are rapidly diminishing. To one quart of flour allow two tablespoonfuls of butter, two small teacupfuls of baking powder; mix with cold water and do not make it a stiff dough. Bake in one cake, split open and spread slices of orange over it, scatter powdered sugar over, and cut in squares, and serve with pudding sauce.

COOKED SPINACH makes an excellent dish if cooked in this way: Wash in several waters, boil till tender, then rub it through a colander. Put a lump of butter in the frying pan, and then put the spinach in; salt it well. When it is very hot add two or three tablespoonfuls of cream. Spread on buttered toast, cut in thin slices, or serve as a garnish with fowls or spring lamb.

THE FLAVOR OF ROAST BEEF.—It is a good plan to vary the manner in which you flavor the roast of beef; this can be done by squeezing the juice of half a lemon over it, and patting the other half inside the roast. Another way is to put half of a carrot, one small onion and a little parsley into the dripping pan and lay the roast over it. Do not be led by any bad adviser to put one drop of water in your dripping pan until you have tried the experiment of roasting beef in this way. It makes a striking difference in the flavor of the meat. The outside browns quickly, the juice is all kept within, and the meat is tender in consequence of this.

FANCY AND USEFUL AS WELL.

Lace Ties.

The lace ties with deep, scalloped edges are made to look like veritable butterflies by tying them very tight in the centre with a ribbon bow, the two ends of which project slightly, and spreading the sides of the tidy like wings. They require much pinning in places, but look pretty.

A Wall-Pocket.

Very handsome wall-pockets to hold papers are made of plush. Two boards are required for this. The one intended for the back must be a size larger than for the front. Gilt-head nails may be put in at the sides, or rings of brass, and the boards be held together by ribbons laced back and forth.

To Make a Pretty Portfolio

Take the covers of an old book; line with crimson silesia. For the outside take black satin; paint or embroider some pretty design on each side, and cover your book. Finish the edge with a silk cord, and fasten bows of ribbon at each corner, with other ribbons with which to suspend it.

Ornamental Work-Basket.

A tasteful scrap-receiver, or work-basket, that will be quite ornamental in a corner, is made of a clean, new peach basket, stained in oak, or left in its natural color and coated with brown varnish. Wide ribbon is interlaced through the slats, row after row, filling the space from the bottom to top, both of which are decorated with a full ruche of the ribbon or silk to match. A less expensive mode is to substitute felt for the ribbon, pinking the edges of the bands, and making the ruching very full. If for a work-basket, then line it with silk or silesia, and furnish it with pockets to hold thread and sewing articles.



APIARY.

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Communications on the business of the association, and bee-keepers' department of the CANADIAN FARMER to be addressed to the Secretary-Treasurer, 231 Parliament St., Toronto.

MY BEE BOOK.

WM. COTTAM, M. A., LONDON.

The sting of a bee is very curious. It is a hollow tube, within which is a sheath, or two sharp barbed or bearded spears, somewhat like the barbs of fish-hooks. These spears in the sheath lie, one with its point a little before that of the other; one is first darted into the flesh, which being fixed by means of its foremost barb, the other strikes in too; and so they alternately pierce deeper until the sheath follows, so that the poison is conveyed into the wound. When the barbs or beards are thus lodged deep in the flesh, the bees leave their stings behind them, not being able to withdraw their spears into their scabbards and the bee loses his life within an hour after he loses his sting, and some within ten minutes.

With respect to the poison which is left in the wound, from more than thirty years' experience I have the greatest reason to believe that the sting of one bee serves to mollify, prevent swelling, and, in effect, cure the sting of another. Innumerable instances have I known, which have confirmed me in my belief; two or three, I will set down here for the reader's information, which, I think, may serve for the whole.

In the year 1767, my brother John who was then a child in coats, went into my father's bee-garden, where a hive of bees lay out very big; the child having a stick in his hand hooked down part of the bunch, when the bees immediately fell on the child and for want of thought he made no attempt to run from them but stood still, crying vehemently. At that time I was at work in my father's chamber, and, calling to my mother-in-law to know what the child cried so violently for, she ran to see, and no sooner came into the garden, than I heard her exclaim so loudly that I could not hear the child's cry. I ran as quick as possible into the garden, and saw the mother running about and grasping the child in her arms, endeavoring to save him from the furious bees. On seeing me she cried out, "The child is stung to death," and as she also was stung very much, so I did not escape being stung in several places, only in taking the child from its mother and running with it into the house. Many bees followed us into the house; and up and down the glass of the window, on the outside, in less than half a minute. I found several bees entangled in the child's hair, and to prevent them stinging him, I pulled them out in a hurry, bees and hair together. As soon as I had extricated the child

from the bees, my next work was to pluck out the stings that were to be found over or less from head to foot; but all over the head they greatly abounded. Several I pulled out of the tongue, and thirteen out, and off one of the ears. Immediately applying to Mr. Robert Grimstead, apothecary, for advice, he said he could not tell what could be done, unless I was to anoint him all over with sweet oil. This I did, as fast as possible; but I believe it did the child neither good nor harm. The effect of this disaster was that he looked pale and appeared sick, but there was not the least sign of any swelling. Soon after this he fell asleep and lay sleeping in his mother's arms; and about ten o'clock that evening, to the great joy and surprise of his weeping parents, he opened his eyes, and appeared perfectly recovered. We all went to rest for the night, and not a single complaint was heard afterwards.

From hence, I take the opportunity of observing, that if I am stung by a bee on the face I generally swell almost blind; if on the back part of the hand, the swelling ascends to the tops of my fingers. But if I am stung by two or more bees the swelling is very little or none at all. I would not, of choice, be stung by them, if it can be avoided, but after I have been stung once, I have no objection to being stung twice; and after I have been stung twice or three times, I do not mind if I am stung fifty or a hundred times.

Some, no doubt, will be ready to say that what I here assert is very unreasonable. It may appear so to those who have not proved it, but if I did not know it to be a matter of fact, I would not relate it. How often have I ascended on a tree of such height that my head would not suffer me to look down, and I have been obliged to take a rope and tie myself on to the tree for fear of falling; how often have I then stripped naked to the waist, put my arm into the tree, among the bees up to the shoulder, and pulled them out by handfuls, in the sight of numbers of spectators.

But, as a further proof of the above, in 1780, in taking out an old stock of bees for Thomas Honner, Esq., in Mills Park, I was stung to such a degree that my flesh was as tender as if cut with lancets, without any appearance of swelling; and as I had to use the bees in the garden, (which lay out very big) I went the next day to do it, and I felt such a fear of being stung again, such as I had never felt before, for upwards of thirty years. This was observed by Mr. Forbes the gardener, who told me that I was more afraid of the bees than he was, which, I believe at that time was true; but, as Mr. Forbes was a stranger to what I then felt, it is not improbable that had he been stung but half so much as I was the day before, he would have been afraid ever to go into a bee garden any more. However, as I expected no pay unless my work was completely done, I raised them up and was again stung from head to feet. But what was my surprise when I found the fresh stings to be of very great service; the pain I felt was removed almost instantaneously, and the tenderness in the flesh very soon passed off. On the third day I made new harkles and plastered the bees round to the satisfaction of my employer; and in doing so I was again stung very much, but the stings had not the slightest effect on me, and I felt nothing of them, only when pricked by them.

Another proof I shall mention was in 1783, in taking a swarm out of a tree for a

farmer, Luke Ashman, of Lough or Mendip. After I had handed out the greatest part of the bees without stinging the queen, I was obliged to search every small hole, there my hand would not go with my forefinger. By this means the finger was stung to such a degree, that William Tupper who attended me, did often take out of it three stings at a time. When he had done I asked how many stings he thought he had taken from the top to the first joint of my finger. He told me they were out of number. I then asked him if he thought he had taken out thirty? "Yes," said he, more than twice thirty. I must observe that this finger felt a little numbed, but not very tender or swelled, nor had it the least appearance of being stung at the first; but for days after, black spots appeared in the skin. Upon another of my fingers, I was stung by a single bee, which made it swell greatly, and it was very tender for several days after.

Another proof I met with in the year 1784, which is the last I intend at this time to mention. It was on the 19th of May, in taking a swarm of bees out of a high elm tree, for Mr. Jas. Russell, of Wells, when I was stung on my fingers and on the back of my right hand, in over twenty places. On this hand there was not the least appearance of swelling and very little tenderness; but on my left hand which was accidentally stung by one single bee, the sting of this one bee caused my arm to swell up to such a degree, that I could not without some difficulty, take my coat off in the evening. The next morning I had greater difficulty in putting it on, and my arm was very tender for some days after. From these circumstances I formed a resolution never to be stung by one bee alone, unless another cannot be had.

ONTARIO BEE-KEEPERS' ASSOCIATION.

A meeting of the Ontario Bee-keepers' Association was held at the City Hall, Toronto, on July 3rd. The following gentlemen were in attendance:—Messrs. S. Cornell, Lindsay, President; J. Hall, Woodstock, 1st Vice-President; Dr. Thom, Streetsville, 2nd Vice-President; Jacob Spence, Secretary-Treasurer; and Messrs. D. A. Jones, B. Chalmers, C. Mitchell, Patterson, Walker, Loose, Baxter, Pellet, Webster, and others. The President explained that the objects of the meeting were:—First, to obtain necessary legislation to protect the bee industry against the dangers of foul brood. A letter addressed to Dr. Thom was read by the President, showing the dangers to the interests of the association generally growing out of the attempt of incompetent persons to conduct apiaries. Reference was made to the interview between members of the Ontario Government and a deputation from the association in reference to the desired legislation in which the Government requested that the association supply statistics showing the extent of the bee-keeping industry, and,

THE GROUNDS OF ITS CLAIMS to Government aid. During the discussion a number of opinions were advanced in favor of the union of the association with the Ontario Fruit Growers' Association, but no formal action was taken in this connection. Considerable time was occupied in the discussion of the best methods of collecting the required statistics. Finally Messrs. S. Cornell, D. A. Jones and Dr. Thom were appointed to wait upon Hon. A. M. Ross to request that

the Bureau of Agriculture and Statistics take charge of the matter, and procure the information in connection with one of the season's crop reports. The association, at the request of the management of the Industrial Fair, made the following nominations for judges for the honey and apiary department at the approaching Toronto Exhibition:—Dr. Thom, Streetsville; S. T. Pettit, Belmont; D. Chalmers, Masselburg; G. K. Trench, Newmarket; and P. C. Empson, Trenton.

Mr. D. A. Jones was heard by the association with reference to the proposed Foul Brood Act. He thought experts should be appointed, whose duty it would be, when so requested, to examine supposed

DISEASED HONEY.

He thought it would be a good idea to have diagrams and full descriptions of the various stages of the disease prepared. He believed the only danger of spreading foul brood was in the bees carrying it from hive to hive. Specimens of diseased comb might be safely sent to experts by mail. A live healthy brood would hatch out in a diseased colony.

Dr. Thom called attention to the necessity for the proper inspection of imported beer, and Mr. Jones claimed this matter as urgently requiring attention as the inspection of imported cattle. Mr. Jones, in reply to a question, also expressed the opinion that the present season would prove a favorable one for bee-keepers.

AN OLD BOOK.

ED. CANADIAN FARMER.—When Mr. Langstroth was here at last year's convention, being much interested in a very old bee book he had with him, a person took some extracts, intending afterwards to prepare for insertion in CANADIAN FARMER, having already waited too long for this purpose. These in the rough are enclosed; if editor can make out to use them, then they are some exceedingly interesting portions, or perhaps the whole would be interesting if they are make-out-able. J. S.

MR. CORNELIUS SMITH'S APIARY.

ED. CANADIAN FARMER.—I inclose you a few statements of my failures and prospects for the last winter, and this spring so far. I commenced this winter of '83 with 61 colonies, and I brought 35 through, which are doing well. These commenced swarming on the 14th of June, and I have now got twenty-three of an increase. I have extracted up to date, four hundred and eighty pounds of honey. White clover is in full bloom; weather very dry. Last was very warm—about 90° in the shade. I winter my bees in chaff hives on summer stands, without any other protection. I might have extracted much more, but I have on an number of section boxes for comb honey. The bees among the small bee keepers suffered in wintering; I think about 50 to 75 per cent. of them perished. Among practical men wintering has been a success. I don't hear of any "foul brood" this summer around here. I have seen only one case of it in this county. CORNELIUS SMITH.

Mrs. E. H. Perkins, Creek Centre, Warren Co. N. Y., writes: She has been troubled with asthma for four years, had to sit up night after night with it. She has taken two bottles of Dr. Thomas' Electric Oil, and is perfectly cured. She strongly recommends it, and wishes to act as agent among her neighbors.

FARM and GARDEN.

THE GREAT HENRY WAID BEECHER AS A FARMER.

The following is Mark Twain's article on Beecher's farming.

Mr. Beecher's farm consists of ninety acres, and is carried on on strict scientific principles. He never puts in any part of a crop without consulting his book. He plows, and reaps, and digs, and sows according to the authorities—and the authorities cost more than the other farming implements do. As soon as the library is complete the farm will begin to be a profitable investment. But book farming has its drawbacks. Upon one occasion, when it seemed morally certain that the hay ought to be cut, the hay book could not be found—and before it was found it was too late and the hay was all spoiled. Mr. Beecher raises some of the finest crops of wheat in the country, but the unfavorable difference between the cost of producing it and its market value after it is produced has interfered considerably with its success as a commercial enterprise. His special weakness is hogs, however. He considers hogs the best game a farm produces. He buys the original pig for \$1.50, and feeds him \$40 worth of corn, and then sells him for about \$9. This is the only crop he ever makes any money on. He loses on the corn, but he makes \$7.50 on the hog. He does not mind this because he never expects to make anything on corn, any way. And any way it turns out, he has the excitement of raising the hog anyhow, whether he gets the worth of him or not. His strawberries would be a comfortable success if the robins would eat turnips, but they won't, and hence the difficulty.

One of Mr. Beecher's most harassing difficulties in his farming operations comes of the close resemblance of different sorts of seeds and plants to each other. Two years ago his far-sightedness warned him that there was going to be a great scarcity of watermelons, and therefore he put in a crop of twenty-seven acres of that fruit. But when they came up they turned out to be pumpkins, and a dead loss was the consequence. Sometimes a portion of his crop goes into the ground the most promising sweet potatoes, and comes up the infernal carrots—though I never have heard him express it in just that way. When he bought his farm he found one egg in every hen's nest on the place. He said that here was just the reason why so many farmers failed—they scattered their forces too much—concentration was the idea. So he gather those eggs together and put them all under one experienced old hen. That hen roosted over that contract night and day for eleven weeks, under the anxious personal supervision of Mr. Beecher himself, but she could not "piase" those eggs. Why? Because they were those infamous porcelain things which are used by ingenious and fraudulent farmers as nest-eggs. But perhaps Mr. Beecher's most disastrous experience was the time he tried to raise an immense crop of dried apples. He planted \$1,500 worth, but never a one of them sprouted. He has never been able to understand what was the matter with those apples.

Mr. Beecher's farm is not a triumph. It would be easier on him if he worked it on shares with some one; but he can not find anybody who is willing to stand half the expense, and not many that are able. Still, persistence in any case is bound to succeed. He was a very inferior farmer when he first began, but prolonged and unflinching assault upon his agricultural difficulties has

had its effect at last, and he is now fast rising from affluence to poverty."

[Mr. Henry Waid Beecher's farm is on the Hudson River. It is tilled under his directions and is said not to be a financial success.—ED. FARMER.]

THE CROPS IN MANITOBA

The following facts regarding the crops of Manitoba, we glean from the crop report of Acton Burrows, Dept. Minister of Agriculture:

Seeding time was favorable and throughout the whole Province the season is fully ten days ahead of last year. A great deal of plowing was done last autumn. In the 365 townships heard from this autumn, plowing amounted to 167,163 acres, out of 309,016 acres under cultivation.

Winter wheat has had but limited trial, only 31 acres being reported. The principal reason given for this is, that spring wheat yields so largely and is so successful that farmers do not feel disposed to run any risk from the uncertainties attending winter grain. The prevalence of prairie fires is also mentioned as a reason for not sowing it.

With few exceptions correspondents of the Department speak flatteringly of the spring wheat prospects. The total area in spring wheat in 328 townships is 247,306 acres, an increase of nearly 40,000 acres over 1883. Seeding began April 24, and ended May 17. The average amount of seed used was one and four-fifths (1.80) bushels per acre, or 1 bushel and 25½ quarts, or 108 lbs. Red Fyfe is the principal variety sown, though some townships report small amounts of Fyfe, White Fyfe, Lost Nation, Red Chaff, etc.

Owing to the unsatisfactory condition of the markets and the want of railway facilities, about 40 per cent less oats have been sown there than last year. In some localities dry weather in May damaged the crop. Barley suffered from the same cause, and this is a deficit of about one-third in the acreage. There is also a falling off in the areas to flax, potatoes, and field roots.

Tree planting is becoming very general in the prairie districts. Arrangements have been made for an Arbor Day next year.—Noxious weeds are gaining a decidedly strong foothold in many places, and the Legislature has passed stringent laws relating to their destruction, and compelling municipal councils to appoint path-masters who shall see to their enforcement.

Considerable summer fallowing is being done for the purpose of destroying the weeds. It is also found to make a more solid bottom on which to grow wheat and to render soils capable of longer retaining moisture. This is of special advantage in the usually dry month of May.

CULTURE OF FALL TURNIPS.

Turnips do best in a fairly rich and rather moist soil. New soil is good if well prepared. When this kind of land is selected, it should be plowed early and allowed to lie until July, when it should be plowed again, and narrowed until fine. Any soil is good for roots which is loose and loamy. The middle or last of July is the best time to sow the seed, but if the weather is unfavorable, later than this will do. I have sown turnip seed as late as the middle of August, and still raised a good crop; but generally I would prefer the last of July. I also find it better to sow after a rain than just before it. I have the ground all ready, so that when a favorable time comes, the work can be

done without delay. It is advisable to sow the seed mixed with earth or ashes. If sown just before a rain, the do not need to be covered, but if sown after, it would be a good plan to drag a brush over the patch. They need only a light covering to germinate.

I prefer rather a low place to high land, as they do much better in dry weather on rather moist soil. Like all other root crops, they are much better if they can be made to grow rapidly; they should be crisp and tender. If the growth is slow, they get strong and pithy. The turnip fly is the worst enemy of the crop, and a preventative should be used as soon as they make their appearance. I use "lug shot" for this purpose, and for radishes and cabbages. I find it as economical as any- as anything else I can procure.

N. J. SHEPHERD.

PLANTING POTATOES BY MACHINERY

It seemed to me last year that my potatoes were planted and cared for in the best manner possible, and at the least cost consistent with good work. But some improvements have been made, I think, this year, both in planting and after culture. It never seemed possible to me that a machine could be made to drop one eye pieces of potatoes with anything like perfection, and so I expected to have to do that job by hand always, at considerable cost. But I have planted 24 acres of potatoes this year with a machine that marked out, opened the furrows, dropped the seed (cut to one eye) and covered it all in one operation. This was the Aspinwall potato planter, which I first heard of through advertising columns. One man and myself plowed and prepared the ground thoroughly, and planted the potatoes, besides doing other necessary farm work, and got through May 14, one day sooner than last year, when I had two more men and a boy to help in the field. This is quite a saving in labor.

As far as the straightness of rows, depth of furrow and covering are concerned, the machine is near enough to perfection. It is also very simple, durable and easily managed. My machine shows no perceptible wear after doing my work. The dropping is not quite perfect, but it is far better than one would suppose could be done by machinery. I have seen potatoes dropped by hand much more unevenly; however a skillful hand could beat the machine in this respect. The makers assure me, after four years' trial, that the unevenness is not enough to make any material difference in the yield, and I am inclined to think so myself, after examining the rows carefully since they came up. However, this point can be best settled the fall after digging. Should the unevenness in dropping cause a loss of 3 per cent in the yield, I think the machine has advantages that will more than overbalance this loss.

When planting, we set the covers so as to make quite a ridge of earth over the rows. After planting, the ground was rolled, as it was quite dry, and pains were taken to have the horses walk between the rows, and not step on them except at the ends when turning around. Some experiments have convinced me that the yield of a hill is slightly injured by having a heavy horse step directly on it before it is up— or afterwards, either, for that matter. The tops grow just as well apparently, but the yield of tubers is always a little less, and

they are not so well-shaped. So this year, by having the soil a little ridged over the rows, we have been able to see them and keep the horses between them while harrowing five times, except when turning. It was necessary to cross-harrow once, and then of course the horses stepped on the hills, somewhat.

Another advantage of this ridge over the row, and keeping the horses off it, was that the harrow took hold, and kept the weeds down better in the rows. Weeds between the rows do no harm if they escape the harrow teeth, as the cultivator will take care of them, but if any are left to grow in the row, in drill culture, they must be eradicated by using the hoe and finners, where level culture is practiced, and this is expensive and unpleasant work. I should have hesitated to harrow the ground six times before the potatoes came up, as it was necessary to do to keep the weeds entirely down, unless the horses had walked between the rows, for fear the remedy would have been worse than the disease. I do not think the trampling, in moderately dry weather, does any harm between the rows, where the ground is to be cultivated up loose again, but directly over the hills, where the potatoes are set, and where it cannot be cultivated up loose again, it is quite a different matter. The tubers must have mellow ground in which to expand, and not hard trampled ground. At least this is my theory to account for that which experience has shown to be a fact. T. B. TERRY, in *American Cultivator*.

Great Fatality.

The ravages of cholera infantum and summer complaints among children is truly alarming. The most reliable cure is Dr. Fowler's Wild Strawberry. Every bottle guaranteed to give satisfaction.

For the CANADIAN FARMER.

WEEDS.

Farmers should carefully inquire what weeds are local in the section whence they get their stock, as those who knowingly sell foul seeds are liable to heavy damage. When wild mustard, and dogweed, or oxeye daisy prevail, timothy seed should not be purchased. Ragweed and orange hawkweed, travel in clover seed. Where oxeye daisy appears in any particular quantity, it will be the only safe way to plow the field as soon as the pest comes in bloom, and make a very fine summer fallow. If this pest once gets its seeds into the ground, it may take a generation to get rid of it. If mustard gets in, the only sure plan is to pull it as soon as it gets in bloom, and keep the plot in grass till all the seeds will have sprouted; for if ungerminated seeds get plowed down, they may lie in the land for years, and come into life when they are turned up again. Very much mischief has been done by careless buyers and importers. The only safe plan is for a few farmers in a neighborhood to select their best pieces of clean, newly-seeded grass land, and let the crops ripen for seed, and supply the neighborhood with a clean, guaranteed article which will be worth, and for which they should get a better price than is paid for a bushel of screenings made up of the small weed trash of the country.

Now is the time to select pieces of timothy for seed which, if first crop will yield well.

M. McQUADE.

HIS SOMBRE RIVALS.

By EDWARD P. ROE

AUTHOR OF "BARRIERS BURNED AWAY,"

"OPENING A CHESTNUT BURN,"

"WITHOUT A HOME," ETC.

"Now was my chance; and I reached up and seized the hand of a tall, burly Irishman.

"What the devil do you want?" he cried, and in his mad excitement was about to thrust me through for a Confederate.

"Halt!" I thundered. The familiar word of command restrained him long enough for me to secure his attention. "Would you kill a Union man?"

"Is it Union you are? What you doin' here, thin, without a uniform?"

"I showed him my badge of correspondent, and explained briefly.

"Strange as it may seem to you, he uttered a loud, jolly laugh. 'Faix, and it's a writer you are. You'll be apt to get some memmyrandums the day that you'll carry about wid you till you die, and that may be in about a minnit. I'll shtop long enough to give you a lift, or you'll lose, rather;' and he seized poor Mayburn by the head. His excitement seemed to give him the strength of a giant, for in a moment I was released and stood erect.

"Give me a musket," I cried, "and I'll stand by you."

"Bedad, help yourself," he replied, pushing forward. "There's plenty o' fellers lyin' aroun' that has no use for them;" and he was lost in the confused advance.

"All this took place in less time than it takes to describe it, for events at that juncture were almost as swift as bullets. Lame as I was, I hobbled around briskly, and soon secured a good musket with a supply of cartridges. As with the rest, my blood was up,—don't smile, Hilland: I had been pretty cool until the murderous discharge that killed my horse—and I was soon in the front line, firing with the rest.

"Excited as I was, I saw that our position was desperate, for a heavy force of Confederates was swarming toward us. I looked around and saw that part of our men were trying to drag off the guns. This seemed the most important work; and discretion also whispered that with my bruised foot I should be captured in five minutes unless I was farther to the rear. So I took a pull at a gun; but we had made little progress before there was another great surging wave from the other direction, and our forces were swept down the hill again, I along with the rest. The confusion was fearful; the regiments with which I had been acting went all to pieces, and had no more organization than if they had been mixed up by a whirlwind.

"I was becoming too lame to walk, and found myself in a serious dilemma."

"Ha! ha!" laughed Hilland. "It was just becoming serious, eh?"

"Well, I didn't realize my lameness before; and as retreat was soon to be the order of the day, there was little prospect of my doing my share. As I was trying to extricate myself from the shattered regiments, I saw a riderless horse plunging toward me. To seize his bridle and climb into the saddle was the work of a moment; and I felt that, unlike McDowell, I was still master of the situation. Working my way out of the press and to our right, I saw that another charge for the guns by fresh troops was in progress. It seemed successful at first. The guns were retaken, but soon the same story was repeated, and a corresponding rush from the other side swept our men back.

"Would you believe it, this capture and recapture occurred several times. A single regiment even would dash for-

ward, and actually drive the Rebels back, only to lose a few moments later what they had gained. Never was there braver fighting, never worse tactics. The repeated successes of small bodies of troops proved that a compact battle line could have swept the ridge, and not only retaken the guns, but made them effective in the conflict. As it was, the two sides worried and tore each other like great dogs, governed more by the impulse and instinct of fight. The batteries were the bone between them.

"This senseless, wasteful struggle could not go on forever. That it lasted as long as it did speaks volumes in favor of the material of which our future soldiers are to be made. As I rode slowly from the line and scene of actual battle, of which I had had enough, I became disheartened. We had men in plenty,—there were thousands on every side,—but in what condition! There was no appearance of fear among the men I saw at about four p.m. (I can only guess the time, for my watch had stopped), but abundant evidence of false confidence and still more of the indifference of men who feel they have done all that should be required of them and are utterly fagged out. Multitudes, both officers and privates, were lying and lounging around waiting for their comrades to finish the ball.

"For instance, I would ask a man to what regiment he belonged, and he would tell me.

"Where is it?"

"Hanged if I know. Saw a lot of the boys awhile ago."

"Said an officer in answer to my inquiries, 'No; I don't know where the colonel is, and I don't care. After one of our charges we all adjourned like a town meeting. I'm played out; have been on my feet since one o'clock last night.'

"These instances were characteristic of the state of affairs in certain parts of the field that I visited. Plucky or conscientious fellows would join their comrades in the fight without caring what regiment they acted with; but the majority of the great, disorganized mass did what they pleased, after the manner of a country fair, crowding in all instances around places where water could be obtained. Great numbers had thrown away their canteens and provisions, as too heavy to carry in the heat, or as impediments in action. Officers and men were mixed up promiscuously, hobnobbing and chaffing in a languid way, and talking over their experiences, as if they were neighbors at home. The most wonderful part of it all was that they had no sense of their danger and of the destruction they were inviting by their unsoldierly course.

"I tried to impress these dangers on one or two, but the reply was, 'O, hang it. The Rebels are as badly used up as we are. Don't you see things are growing more quiet? Give us a rest!'

"By this time I had worked my way well to my right, and was on a little eminence watching our line advance, wondering at the spirit with which the fight was still maintained. Indeed, I grew hopeful once more as I saw the good work that the regiments still intact were doing. There was much truth in the remark that the Rebels were used up also, unless they had reserves of which we knew nothing. At that time we had no idea that we had been fighting not only Beauregard, but also Johnson from the Shenandoah.

"My hope was exceedingly intensified by the appearance of a long line of troops emerging from the woods on our flank and rear, for I never dreamed that they could be other than our own reinforcements. Suddenly I caught sight of a flag which I had learned to know too well. The line halted a moment, muskets were levelled, and I found myself in a perfect storm of bullets. I assure you I made a rapid change of base, for when our line turned I should be between two fires. As it was, I was cut twice in this arm while galloping away. In a few moments a battery also opened upon our flank; and it became as certain as day that a large Confederate force from some quarter had been hurled

upon the flank and rear of our exhausted forces. The belief that Johnson's army had arrived spread like wild-fire. How absurd and crude it all seems now! We had been fighting Johnson's army from the first.

"All aggressive action on our part now ceased; and as if governed by one common impulse, the army began its retreat.

"Try to realize it. Our retirement was not ordered. There were thousands to whom no order could be given unless with a voice like a thunder peal. Indeed, one may say the order was given by the thunder of that battery on our flank. It was heard throughout the field; and the army, acting as individuals or in detachments, decided to leave. To show how utterly bereft of guidance, control and judgment were our forces, I have merely to say that each man started back by exactly the same route as he came, just as a horse would do, while right before them was the Warrenton Pike, a good, straight road direct to Centreville, which was distant but little over four miles.

"This disorganized, exhausted mob was as truly in just the fatal condition for the awful contagion we call 'panic' as it would have been from improper food and other causes for some epidemic. The Greeks, who always had a reason for everything, ascribed the nameless dread, the sudden and unaccountable fear, which befalls men of manhood and reason, to the presence of a god. It is simply a latent human weakness, which certain conditions rarely fail to develop. They were all present at the close of that fatal day. I tell you frankly that I felt something of it myself, and at a time, too, when I knew I was not in the least immediate danger. To counteract it I turned and rode deliberately towards the enemy, and the emotion passed. I half believe, however, that if I had yielded, it would have carried me away like an attack of the plague. The moral of it all is, that the conditions of the disease should be guarded against.

"When it became evident that the army was uncontrollable and was leaving the field, I pressed my way to the vicinity of McDowell to see what he would do. What could he do? I never saw a man so overwhelmed with astonishment and anger. Almost to the last I believe he expected to win the day. He and his officers commanded, stormed, entreated. He might as well have tried to stop Niagara above the falls as that human life. He sent orders in all directions for a general concentration at Centreville, and then with certain of his staff galloped away. I tried to follow, but was prevented by the interposing crowd.

"I then joined a detachment of regulars and marines, who marched quietly in prompt obedience to orders; and we made our way through the disorder like a steamer through the surging waves. All the treatises on discipline that were ever written would not have been so convincing as that little oasis of organization. They marched very slowly, and often halted to cover the retreat.

"I had now seen enough on the farther bank of Bull Run, and resolved to push ahead as fast as my horse would walk to the eastern side. Moreover, my leg and wounds were becoming painful, and I was exceedingly weary. I naturally followed the route taken by Tyler and his command in coming upon and returning from the field, and crossed Bull Run some distance above the Stone Bridge. The way was so impeded by fugitives that my progress was slow, but when I at last reached the Warrenton Turnpike and proceeded toward a wretched little stream called Cub Run, I

witnessed a scene that defies description. Throughout the entire day, and especially in the afternoon, vehicles of every description—supply waggon, ambulances, and the carriages of civilians—had been congregating in the Pike in the vicinity of Stone Bridge. When the news of the defeat reached this point, and the roar of cannon and musketry began to approach in rapid succession, a general movement toward Centreville began. This soon degenerated into the

wildest panic, and the road was speedily choked by storming, cursing, terror-stricken men, who, in their furious haste, derided their own efforts to escape. It was pitiful, it was shameful, to see ambulances full of the wounded shoved to one side and left by the cowardly thieves who had galloped away on the horses. It was one long scene of wreck and ruin, through which pressed a struggling, sweating, cursing throng. Horses with their traces out, and carrying two and even three men, were urged on and over everybody that could not get out of the way. Everything was abandoned that would impede progress, and arms and property of all kinds were left as a rich harvest for the pursuing Confederates. Their cavalry hovering near, like hawks eager for the prey, made dashes here and there, as opportunity offered.

"I picked my way through the woods rather than take my chances in the road, and so my progress was slow. To make matters tenfold worse, I found when I reached the road leading to the north through the 'Big Woods,' that the head of the column that had come all the way around by Sudley's Ford, the route of the morning's march, was mingling with the masses already thronging the Pike. The confusion, the selfish, remorseless scramble to get ahead, seemed as horrible as it could be; but imagine the condition of affairs when, on reaching the vicinity of Cub Run, we found that a Rebel battery had opened upon the bridge, our only visible means of crossing. A few moments later, from a little eminence, I saw a shot take effect on a team of horses; and a heavy caisson was overturned directly in the centre of the bridge, barring all advance, while the mass of soldiers, civilians, and nondescript army followers, thus detained under fire, became perfectly wild with terror. The caisson was soon removed, and the throng rushed on.

"I had become so heart-sick, disgusted, and weary of the whole thing, that my one impulse was to reach Centreville, where I supposed we should make a stand. As I was on the north side of the Pike, I skirted up the stream with a number of others until we found a place where we could scramble across, and soon after we passed within a brigade of our troops that were thrown across the road to check the probable pursuit of the enemy.

"On reaching Centreville, we found everything in the direst confusion. Colonel Miles, who commanded the reserves at that point, was unfit for the position, and had given orders that had imperilled the entire army. It was said that the troops which had come around by Sudley's Ford had lost all their guns at Cub Run; and the fugitives arriving were demoralized to the last degree. Indeed, a large part of the army, without waiting for orders or paying heed to any one, continued their flight toward Washington. Holding the bridle of my horse, I lay down near headquarters to rest and to learn what would be done. A council of war was held, and as the result we were soon on the retreat again. The retreat, or panic-stricken flight rather, had, in fact, never ceased on the part of most of those who had been in the main battle. That they could keep up this desperate tramp was a remarkable example of human endurance when sustained by excitement, fear, or any strong emotion. The men who marched or fled on Sunday night had already been on their feet twenty-four hours, and the greater part of them had experienced the terrific strain of actual battle.

Pleasant as syrup; nothing equals it as a worm medicine; the name is Mother Grayes' Worm Exterminator.

Subscribe for the FARMER.

A Happy Thought. Diamond Dyes are so perfect and so beautiful that it is a pleasure to use them. Equally good for dark or light colors. 10c at druggists. Wells, Richardson & Co., Burlington, Vt. Sample card, 32 colors, and book of directions for 2c. stamp.

HORTICULTURE.

A correspondent of the *German Town Telegraph* says that he has found salt a valuable remedy for rust on the blackberry vines, and concludes: "I have applied two or three handfuls on the surface of the ground, immediately over the roots, when the plants were badly rusted, in two or three weeks the disease had disappeared, and the plants had made a good growth. I believe moderate applications of salt, sown broadcast over blackberry patch, would be of great benefit as a fertilizer and health renewer."

THE A. B. C. OF STRAWBERRY CULTURE.

The illustrious Becher recently said that the world progresses more by learning what cannot be done than by putting in practice any brilliantly conceived idea. Therefore in giving these bits of experience I do so with the hope of enabling others to avoid the errors that I made myself, for I began with A at an early age, and if years of practice are to count I am now pretty well along in the alphabet.

When asking information before I ever handled a strawberry plant, I was told to select poor, light, sandy soil as the best. I was told that fertilizers impaired the quality of the fruit and the plants would grow, and could be kept clean only on light land. Greater mistakes were never made, although the strawberry is such a good natured plant, it will take hold and make the best of things whenever placed (a most commendable disposition all will admit) yet it never pays to impose on good nature. It is true that plants can be more readily kept free of weeds on light soil, and this is the only bit of truth in the information I obtained. On the other hand the strawberry is an exceedingly gross feeder—a perfect gourmand so to speak—and not particular as to diet; stable manure, ground bone, wood ashes, hen manure, night soil, hog manure. It will thrive on them all, though it prefers to everything else cow manure, from its cool nature and abundance of nitrogen and one is not likely to give it too much.

The greater the amount of fertilizers given the plants the greater will be the yield and size of the fruit they will give in return.

Besides being a great feeder it is a deep drinker. By this I mean there are few fruit-bearing plants that require a greater supply of water, or suffer more from the lack of it. Therefore, the folly of planting on light, porous soil will readily be seen. For this reason, also, is mulching of great benefit to the strawberry, which I will speak of more fully a little later.

I have said the strawberry is a gourmand, and very much disposed to drink. These are natural habits and not acquired ones, hence good, and advantage should be taken of them. Were it not for these propensities it would not seem possible for the plants to produce the enormous crops that it is possible to obtain. Therefore in preparing the soil, not only should it be well fertilized and well pulverized, but prepared deeply—a foot at least and as much further as you will—for the double purpose of placing in the soil a large supply of plant food and to induce the plants to thrust down long roots deep in the soil to obtain it, and thus to withstand drought with comparatively little injury. There are so many ways and distances practiced in planting that I will at-

tempt to describe none here, merely suggesting that the strawberry plant is one of the easiest to make live and to plant in a manner that will admit of easy culture. They look very pretty in narrow rows when first set out, but alas! the weeds and grass will appear, and like bad habits, they are of a ranker growth and must be kept down or they will suppress all the good. If the patch is of much extent it should be planted in a manner that will admit of horse cultivation by all means.

Well do I remember my first strawberry bed. The way I planted it I could cultivate only with the hoe and my fingers. How hot the weather! How long the days! How restlessly did the scorching sun blaze down upon me while pulling the weeds from among the plants.

It requires a good deal of moral courage to keep all of the runners cut off, but such must be done in order to have fine fruit. Although easily clipped off with a hoe, there is perhaps nothing in strawberry culture so often neglected, both by experienced and inexperienced growers. The latter lack knowledge, the former too often lack courage to put their knowledge in practice. But the plants should be kept in hills or single rows at best, for an excess of plants has the same influence as weeds in a strawberry bed, diminishing both the size of the berries and the yield.

In speaking of planting, I should have said the plant of the strawberry is one of the easiest to transplant if properly planted. A very common error (and one I made to perfection in setting my first bed) is to plant too deeply. The fact that plants of cabbage, tomatoes, and many garden vegetables live and thrive better if planted deeply, perhaps leads to this mistake; at any rate, if the crowns of strawberry plants are placed below the surface they will decompose and die. In planting, set the plants no deeper in the soil than when growing, or with the leaves even with the surface. The roots should be straightened and placed their full length in the soil, pressing it firmly on every side to prevent drying.

To be successful in strawberry growing, as with everything else, the cultivator must be forehanded, and especially is this the case in planting, which should be done as early in the spring as the frost is out and the soil in a condition to "work," or as early in the summer as the plants have become well rooted.

Do not expect to excel everybody else at the outset; too many entertain such ideas and meet with such ignominious failures as to be ever after discouraged from making another attempt. In planting my first plants, no ordinary kinds would do for me; oh, no! and I planted wholly of the Nicanor, then a new variety selling at a high price; the result was that the crop was extraordinary only in its diminutive size in all its respects. I then planted Wilson and Agriculturist, and did "astonish the natives" in every truth, both by the size of the berries and the yield.

Begin with the old, reliable sorts; it will be quite time enough to court the acquaintance of the frivolous belles of the season—the novelties—when you have established friendship with the worthy matrons.

Let no one plant strawberries unless he will protect them in winter. Who would expect a cow to give a large yield of milk, or a horse to look and travel well if left

exposed to the inclemency of the weather? One might as well expect the best return from his strawberry plants without protection. Not much is needed and most anything will do, for the strawberry is not at all fastidious; salt meadow hay, leaves, straw, chaff, or other loose light material is preferable, but shavings, pine needles, tan bark, or corn stalks will answer. Evergreen boughs are excellent; but the best of all is stable manure, as the soluble portions remain upon the surface and afford a protection.

Not only does this so-called mulch protect the plants from the cold and blighting winds of the winter, but keeps the ground cool and moist during spring and the fruiting season, keeping the fruit from the ground in a clean and sound condition. It should not be applied until the ground has become slightly frozen in autumn; but under no circumstances allow it all to remain to prove a smothering blanket to the plants when growth starts in spring. This will be the case unless a portion is removed so soon as the ground becomes thawed and settled in spring.

After that nothing remains to be done except wait a few weeks until strawberry time, and then—I deem it unnecessary to explain what to do, even to a novice.—*Green's Fruit Grower.*

POULTRY.

FOR THE CANADIAN FARMER.
THE CHICKEN.

BY R. H. SEATH.

Reports from the chicken raisers throughout the country tell of good success this year with the hatching, and anticipate any quantity of magnificent poultry for the coming markets. Large numbers of amateur breeders got rather discouraged last year, and throw up the sponge on poultry-raising. Had they stuck to it and tried it again this year, no doubt success would have crowned their efforts. The nests this year are full of chicks, and, of course, the old grannies are accounting for it because of the lack of thunder storms, but it would be more correct to attribute it to a little extra care and attention. A great many people who want to raise poultry are exceedingly careful about getting good eggs, and, of course, that is commendable, but then they very often say after all that the eggs were rotten, and, of course, no chicks were forthcoming. Is that the fault of the eggs? We think not. The fact of the eggs being rotten tells a story that life existed there sometime, and no doubt that life was destroyed by the improvertreatment which the eggs received. On the whole, however, the season has been a good one, so far as hatching is concerned, but it is not nearly so good with regard to raising. The frequent cold nights, and frosts stunned the chickens, and demand that we must give them extra care. This pays in the end, and our poultry-raising friends should see to it, that the wee chicks are comparatively as carefully put away as the children of the family. Both are young; both are tender; both must have extra care.

A GOOD CHICKEN COOP.

A good, light and durable chicken coop is made as follows:—Make a frame for an "A" shaped coop, which is not a difficult work to do. Cover both sides with a single ply tar paper. Coat once with tar and then sprinkle with sand. Near the top a hole for ventilation can be covered

with wire netting (a piece of an old sieve answering capitally), and slate may protect the entrance. The inside should be whitewashed, and the floor should be made a little smaller than the frame, so that the latter can slip down over it. By this means rats will be kept out. A board can be kept to cover the entrance opening at night.

FOR THE CANADIAN FARMER.

POULTRY NOTES.

Let chickens be constantly supplied with fresh water.

When you feed rice mix it with other foods. Cook it before feeding.

The poultry house should be thoroughly cleaned and whitewashed inside.

Give your chickens milk; it is one of the most valuable foods they can receive.

Don't let chicks out too early in the morning, the wet grass will affect them injuriously.

The earlier you can get your chickens to market, the better will they pay. Remember this and feed them generously.

Don't feed constantly one food. Change the diet and thus consult their tastes occasionally. They will do better on it.

Chickens like sunshine; but a very hot sun on a summer day is injurious to them. They should have proper shade to go to.

Feed your chickens at stated hours. They have organs of digestion to be kept in proper order as well as their owners have.

Keep your chickens out of storms and they will thrive better. This is also a preventative for gapes, diarrhoea and other ailments.

If your hens look miserable don't be sure that they have no lice. Whitewash the poultry house and then dust it inside with insect powder; this will get into the cracks and crevices where the whitewash fails to penetrate. Better dust a little under the wings of each fowl. This plan of treatment will banish the lice.

When your fowls get Roup separate the sick bird from the rest at once and place it in a comfortable coop. The nostrils and beak must be washed clean with castile soap and tepid water, then inject into the nostrils with a small syringe, either from the outside or through the slits in the mouth, a solution of chlorate of potash. A good gargle is one of vinegar and salt slightly wa med, to which may be added a half teaspoonful of alcohol or other liquor, use a small stick with a rag on top and swab the mouth and throat twice a day. Put about four drops of tincture of aconite in a half pint of the drinking water.

Young Men!—Read This.

THE VOLTAIC BELT CO., of Marshall Mich., offer to send their celebrated ELECTRO VOLTAIC BELT and other ELECTRIC APPLIANCES on trial for thirty days, to men (young or old) afflicted with nervous debility, loss of vitality and manhood, and all kindred troubles. Also for rheumatism, neuralgia, paralysis, and many other diseases. Complete restoration to health, vigor and manhood guaranteed. No risk is incurred as thirty days trial is allowed. Write them at once for illustrated pamphlet free.

Talma capes for summer mantles are made of loops of beads resting on chenille loops; these form the entire cape, to which is added a fringe of beads with chenille in it.

Contributors, &c., to the "Canadian Farmer."

HORTICULTURE.

T. O. Robinson, Owen Sound.
G. D. Whitney, Lecturer Michigan State College, Muskegon, Mich.
P. H. Henderson, Hortie Vineyards, Stevensville, Ont.

POULTRY.

Geo Elliott, a taker of eight prizes at the Provincial Poultry Show—Port Robinson Ont.

APIARY.

D. A. Jones, of the Beekeepers Association of Ontario, Boston Ont.
R. McKnight, Bee-Keepers Association, Owen Sound.

MACHINE STUFF, SUGAR, &c.

Levi R. Whitman, an extensive manufacturer Knowlton, Quebec.

GRAIN CULTURE.

Dr. Joy, Tilsonburg, Ont.

VETERINARY.

O. Elliott, V. S., St. Catharines, member Ontario Veterinary College.

GENERAL FARM SUBJECTS.

M. McQuade, Edmondville, Ont.
S. T. Pettit, Belmont, Ont.
E. S. Ureod, Newport, N. S.
George Creed, South Baynton, N. B.

LADIES' DEPARTMENT.

Mrs. E. H. Nettles, Grimsby, Ont

The Canadian Farmer.

The Only Weekly Agricultural Paper in Canada.

Is published every Wednesday morning at the Welland Printing and Publishing House, Welland, John Ferguson, M.P., sole proprietor.

WEDNESDAY, JULY 9, 1884.

WORK FOR US.

The circulation of the FARMER is every day greatly increasing, and the proprietors feel greatly encouraged in the work; but we are bound to increase the circulation during the next five months to fully twice the large number it already is. We publish the BEST, CHEAPEST and SPICEST agricultural paper in Canada—the ONLY WEEKLY in the Dominion, and are receiving every day dozens of compliments and good wishes. Now, friends, we are glad to have your good opinion, glad to receive your expressions of interest, and we shall be equally glad to secure your assistance. You can make money at it and can assist us to send our paper into every home in the country. You need not be afraid to recommend the CANADIAN FARMER. The improvement which has marked its pages for the past few months will continue, until it is without a peer, as a farm and home paper. We don't want your work without paying for it, but will pay all to act as agents for us. Next week or the week following we will publish our list of premiums to all who will secure us subscribers. In the meantime we desire all to go to work for the FARMER. Remember, we will pay cash to our agents. Begin at once, by writing to us for blank forms, sample copies, rates, etc. Address the CANADIAN FARMER, Welland, Ont.

FAIRS TO BE HELD.

Industrial at Toronto, September 10th to 20th.

Provincial at Ottawa, September 22nd to 27th.

This list will be made complete in future issues. Secretaries and others will confer a favor upon us by sending particulars as to their fairs, for publication in the CANADIAN FARMER.

INDUSTRIAL EXHIBITION.

In our notice of the Industrial Exhibition two or three slight errors were made. The Exhibition will begin on the 10th of September and end on the 20th; and the railways will give return tickets at single fare instead of a fare and a third.

AGENTS.

We want agents for the FARMER in every county in Canada. A liberal commission will be paid to good, live, reliable parties. The FARMER is increasing its circulation every day, and we intend to double its already large circulation in the coming six months.

Your assistance is solicited. For terms, etc., write to the CANADIAN FARMER, Welland, Ont., Drawer A.

PROVINCIAL EXHIBITION.

The Provincial and Dominion Exhibition, under the auspices of the Agriculture and Arts Association of Ontario, will take place this year at Ottawa during the five days from September 22nd to 27th. The prize list is an exceptionally good one, and the management have made extra efforts to have a show this year that will even surpass former efforts. Being held in the city of Ottawa, the capital of the Dominion, no doubt a very large number will regard it as an excellent opportunity to visit the seat of government.

The railways will issue railway tickets at single fare and thus all will be enabled to be present at the exhibition with very little cost. The Editor of the FARMER will be present and shall be most happy to meet there many of our weekly readers.

RAMBLES HERE AND THERE.

In the early part of June we visited the fruit farm of Mr. Morden, near Southend, Stamford Township, Welland County. We had expected to see a fine place nicely kept with a thrifty growth of nearly all kinds of small fruits in very great variety, and we were not disappointed. The farm has evidently been carefully prepared and tilled for some years, and presents a beautiful homelike appearance. Strawberries were ripening, and pickers were gathering the first for this seasons market.

Mr. Morden has tried nearly all varieties and considers the Crescent seedling one of the most profitable berries for marketing. Although Mr. Morden courteously showed us his fine plantations of raspberry, blackberry, gooseberry and other small fruits, and interested us with the knowledge he has gained of the value of the various varieties, we did not make note of or attempt to gather his remarks, hoping in the near future to have his experience from his own pen on their cultivation. We were shown what to us was a new variety of currant, called the Raby Castle. The foliage of it resembles that of the black, and is retained by the bush during the entire summer, consequently protecting the fruit and aiding in ripening it full flavor. The growth of wood is very rapid, fully equal to that of the majority of black currants. The berry when ripened or matured is but little larger than the Red Dutch, and not much better in quality, but as the Red Dutch has few superiors, a little means a great deal.

The Raby Castle is an immense bearer, in fact has few equals, and has so won upon Mr. Morden that he considers it the

best and most profitable currant for marketing, and is planting it in preference to all others. The Raby Castle is an English variety, entirely new to us.

FROM OUR COLUMNS.

We are pleased at all times to have our contemporaries select some of our excellent articles on farm and kindred subjects for use in their columns, but we would be much obliged if credit were given the CANADIAN FARMER for the same. Every week the FARMER supplies for its readers a rich variety of reading, among which is a large amount secured at considerable pains and expense, especially for our columns. We are glad to know that such is highly appreciated, not only among our readers, but also among our exchanges. We invite all to partake, but ask that credit be given us.

EUROPEAN CROP PROSPECTS.

In England the weather has been reversed; instead of being too wet, as usual, it has been too dry, and excessively warm up to the last of May, when it set in cold again. Grass and barley suffered most, and the former will be a very short crop. In Scotland prospects are just fair. Wheat was growing finely, potatoes promised well, and barley improving. The foot-and-mouth disease is reduced to the lowest point for years, and cattle generally are in good condition. In France the general prospect was good. Cereals promised a medium crop. The Government has decided to introduce a bill into the Chamber of Deputies, more than doubling the duty on foreign flour—from 32 cents to 74 cents—and also doubling the duty on cattle and sheep. The land assessed in France embraces 123,036,873 acres, valued at \$144.08 per acre.

Advices from all over Germany represent a cheering prospect for the year's crops. The weather has been excellent, and vegetation is everywhere vigorous and healthy. Dry weather in Russia, in the Odessa district, and the want of snow covering last winter have injured the wheat crop. The Russian Government has decided to increase the duty on foreign agricultural machinery. In Italy, Holland and Belgium prospects are good, but heavy rains in Spain done considerable damage.

Advices from England up to June 23 represent the weather as still dry. The *Mark Lane Express* of that date says it is impossible, yet, to estimate the result of the wheat harvest. "Broadly speaking, the weather has favored the strongest and most forward wheats and prejudiced other growing crops. Present indications tend to making the best better and the indifferent worse."

CANADA AHEAD.

It is no new thing for Canada to best her rivals in the production of fine quality cereals. At the industrial exhibition now being held in Amsterdam she has received the gold medal for the best wheat, oats, barley, etc., on show. This is indeed an honor since she came in competition with almost every cereal producing country in the world. Of course these had their level best and sent their best samples. Canada did the same, and has come off victorious. This is another evidence that ours is one of the greatest agricultural countries beneath the sun. With the high state of cultivation in which the land of some of her competitors has been placed, the Dominion of Canada would take an infinitely higher place than she now takes.

PRESIDENT MILLS AND THE CANADIAN FARMER.

In his address at the closing exercises of the Agricultural College, President James Mills spoke plainly and sensibly upon some points of defect in our educational system against which the FARMER has directed its columns at various times during the past few months. Mr. Mills recognizes, as we have repeatedly urged, that the manner in which the young men of the Province of Ontario are being educated is in itself a force to lead them from the farm and into the professions of the mercantile house or the workshop. The main incentive held out to boys at school is the hope of passing some examination into some particular calling other than farming. Pupils are first urged to try the entrance examination into high schools. After a certain amount of exclusive training they are possessed of enough book knowledge to pass the required examination and as soon as they get there the glories of a University course or a professional studentship are held before them until they come to believe that such are the only true ends of youthful education. Not a word is said to them to encourage them to become intelligent for the sake of the benefit and pleasure it bestows; and not a single effort is made to educate them so that every day they may be learning something which may be of real benefit to them in after life. We defy any man to say that the system of education as at present used, does not lead boys and young men to look down upon labor. Farther and worse than that it favours indolence.

Mr. Mills is right when he says "the high schools are first-class schools, but they educate men for the professions—not the farms." We have on different occasions called attention to the fact that the so-called higher education dispensed at the high schools was, so far as the masses are concerned, chiefly a myth; and Mr. Mills is just as correct when he says "and if a farm boy did enter them he would be gradually led to change his mind and seek some other occupation." This is a deplorable fact and yet it is a fact. There is nothing in the public school system to entice a boy to become an agriculturist, and there is everything in the high school system to lead him to not be one. The farmers of the country are really supporting a set of institutions that are in reality destroying the prospects of numbers of the young men by filling them with a desire to leave the farm and to enter some other and more fancy employment.

We have referred at length on various occasions to the necessity of teachers being prepared to teach agriculture by a course in it at the Normal School, or at the Agricultural School. Mr. Mills also advanced the same idea. There is no use putting the subject of agriculture on the list of studies if it is to remain there a dead letter, as it certainly would remain, with teachers as ignorant upon it as the large majority of them are at present. Let every teacher before graduating be compelled to pass a thorough examination in such branches as can with benefit be taught in the public schools; and let no teacher be engaged in a rural school who cannot present a special certificate of fitness for the post. When this is done benefit will be derived from the placing of agriculture upon the public school curriculum.

Another strong point urged is this: That there should be fewer high schools, and that

in the place of those abolished there should be established district agricultural schools. The idea is a capital one. We could easily get along with two-thirds of the high schools we have at present and that would allow of the establishment of a large number of such agricultural school throughout the various parts of the province for the better education practically by farmer's sons. If this were done farmers would get much more real value for their money.

We shall refer to this matter again and speak particularly of these district agricultural colleges in Europe.

RECEIVED.

Vick's Floral Guide is as instructive and interesting as ever. Its front plate is a marvel of beauty.

Our thanks are due the Nebraska Board of Agriculture for a prize list of the State fair, accompanied by complimentary tickets to the same. We trust it may be a great success.

We are duly grateful to the management of the Zoological Gardens in Toronto for their kind remembrance of the Editor of the FARMER.

A couple of our readers have favored us with some excellent strawberries upon our editorial table. They have forgotten to send their names and we are therefore unable to thank them other than in this general way. When our friends send us any little delicacies by express, kindly let them send their names along with them, that we may give them due credit.

CORRESPONDENCE.

This page will be devoted to the exclusive use of correspondents. All of our readers are invited to write upon subjects of interest to agriculturists.

SMALL BUT PROFITABLE.

ED. CANADIAN FARMER.—A number of your correspondents have been urging the necessity of raising more stock throughout the country; but they seem to have limited the term stock to cattle and horses. Now, I agree with the idea that our system of farming must change as the country changes and as the markets change also; but, sir, I am convinced that in many other ways, than the raising of cattle and horses, must the farmer expect to make money. For raising of cattle and horses large farms are needed, pasture in large lots must be had, and hay must be preserved for winter feeding. These are easy matters for a large land-owner, but to the man with a small farm the two wants are insurmountable difficulties, and hence he is compelled to turn his attention in other directions if he would become successful. There are many ways of money making open to the man with but a few acres of land if he has an intelligent acquaintance with his business and sufficient shrewdness and tact to protect him from the impositions which may be tried upon him. Among these I must class as being among the most profitable, both directly and indirectly, the raising of hogs. The food to properly feed a very large number of hogs can be raised on a small piece of ground. Corn or roots yield heavily to the acre if well tilled, and thus a large flock of swine may be fed and fattened, although their owner has but a very small farm. It must not be forgotten, either, that hog manure is among the most valuable of manures. It is concentrated and peculiarly fitted for the fertilization of worn out soils, and the raising of the root crop and corn, gives the

land an extra amount of cultivation, beside a rest.

So that all things considered, I am persuaded that to the small land owner the raising of a large number of hogs would be a very profitable business. Another point in the favor of these animals is that they are, of course, prolific breeders, and hence one's stock will rapidly increase. But to make hog raising pay, as with anything else, good animals must be kept. Let any intelligent man keep good hogs and feed well and they will pay. Yours,
R. S. PERCINE.

HYGIENIC.

ED. CANADIAN FARMER.—I suppose that among the readers of your pages, are many who do not believe in eating meat or highly seasoned food of any kind. I am not much on fat pork in hot weather myself, although a little occasionally is palatable. It is undoubtedly a fact that we pay too little attention to the healthfulness of our diet, and do not make proper use of the different fruits. The farmer ought to arrange so as to have an abundance of all kinds of fruit in one form or another throughout the whole year. Fruit and vegetables are healthful and palatable, and ought to be used very freely. Let the farmers pay more attention to their culture. I have procured a little book published by Fowler & Wells, 753 Broadway, New York, entitled "The Hygienic Home Cook Book," that contains minute directions for cooking all vegetables and fruits in a hygienic manner; also bread, mushes, pies, puddings, sauces, etc. It will be found an interesting and useful little volume, for the cook that wishes to prepare healthful food for her family. Send 25 cents to the above address, and get it. F. H. D.

IRON COLLARS.

ED. CANADIAN FARMER.—J. Mc. asks if you have tried iron collars, and from your reply to his enquiry I am persuaded you have not tried them, for you appear to me to be drawing largely upon your imagination. It is a very common thing to see articles written by parties (who are anxious to be heard from as well as to be seen in print) giving advice on farm and other topics, who seem to know very little about the subject on which they write, and I think farmers have learned (some by sad experience) to take such articles for what they are worth. But when we see an article with the editor's signature attached, we are inclined to take it for granted that it is correct, for we think he above all others should know whereof he affirms or asks through the columns of his paper for the experience of others. At the risk of exhausting your patience I will give you my experience with iron, or rather steel collars. I bought an aged horse a year ago last February that had a sore spot on his shoulder, which looked as if it caused him a great deal of suffering, and was as big as my three fingers. I had a leather collar closely fitted to him and a sweat pad underneath. All went well until hot weather and hard plowing came on and all at once his shoulders became so badly scalded that he could not go on with the work. I at once procured a steel collar and kept him at work plowing steadily, and in two weeks his shoulders were entirely cured, without any medical treatment except the first two days after I had put on the steel collar. I have used them now over a year through as hot weather as we

usually have, and through the coldest weather we have had in twenty-five years, to my certain knowledge, and not only that but the old bare spot is nearly grown over with hair, notwithstanding that I have subjected them to the most severe tests, namely, working on a horse-power threshing machine, jerking stumps and logging. So I say to my brother farmers: "don't be satisfied until you have tried them yourselves, and once fairly tried there is no danger of your laying them aside for leather collars unless your horse has an unusually peculiar shoulder." There is about one horse in fifty that they will not fit. Where the top of the neck is as thick as the bottom the steel collar will not fit unless some wider top can be had than I have. E. ANDERSON.

Port Dover, June 30, '84.

HIGH CLASS POULTRY.

EDITOR CANADIAN FARMER.—We do wish to be understood to say that thorough-bred fowls will not more than pay expenses; but we do assert most emphatically that unless the farmer has that love for fancy fowls that would induce him to keep them if they did only pay expenses, he is not a true fancier, consequently could not pay them that personal attention which is requisite to their welfare and consequently his success. But with this prerequisite there is nothing to prevent even the farm laborer from becoming a successful fancier.

To begin, we would recommend the advice sometimes given by waterfamilies, viz., get your cage before you do your bird. Have a clean, comfortable place for them, well ventilated, and have it so it can be made warm when desirable. Add to this plenty of light and you have all that is necessary. We do not approve of artificial warmth, for we believe that better birds can be raised without than with it, as it is next to impossible to use artificial heat, without getting too much of it at times, which is much worse than none at all, producing as it does colds, catarrh, and will lead to roup in the end. This done, the next point to consider is to procure stock to start with, and whether to buy eggs and hatch them, or buy birds. With a fair hatch the former seems much the cheapest, but when, as is frequently the case, we only get one or two chicks from a dozen or thirteen eggs, and perhaps should there be more they may be all pullets or all cockerels, and should there be even a trio of good birds from the brood they are almost sure to be full brother and sister and you begin at once the injudicious system of inbreeding, which should only be practised under certain circumstances, and then the selections made by experienced breeders. On the other hand, should you buy birds it is all right to buy both male and female from one man, if he has two or more yards not related, and you have reason to believe he is giving you birds properly mated.

It is better if you are not sure of this to procure the male from one breeder and the female from another. Great care is necessary in mating. Birds should not be mated which have both the same defect, as their progeny will be likely to have it in a greater degree than either parent. It is best to have a difference of a year in the ages of the male and female. We fancy that our best stock comes from two-year-old hens mated with a vigorous cockerel, other things being equal, while some breeders claim that a two-year-old cock mated with pullets produce the best birds. But though we have raised magnificent birds from cockerels and pullets, yet on

the whole it is not advisable to mate thus, as the chicks will not be so uniformly good and the good ones will be the exception. More anon, BREKDER.

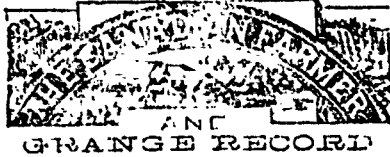
VITALITY OF WEED SEEDS.

How is the vitality of the seeds of our most common weeds, such as dock, sorrel, chickweed, shepherd's purse, white daisy, etc., affected by the action of the digestive organs of animals? This inquiry was addressed to Prof. Maynard. He answers in a bulletin published by the Massachusetts Experimental Station: Seeds were fed to a horse, and the refuse collected. Upon examination, it was found that unless the seeds were crushed they remained uninjured and germinated readily. The experiment was repeated several times with the same result.

This point settled, it becomes important to know how the same seeds are affected by the action of the compost heap, for while the farmer should not allow weed seeds to mature on his farm, such seeds do ripen, and it is necessary to provide means for their destruction. For this purpose a series of experiments were carried out, the result of which is that seeds are destroyed if exposed to a temperature of from 90° to 100° F. for from five to seven days in a moist compost heap. In a dry compost heap, where the temperature runs as high as the above, the seeds were found but little injured. The efficiency of this mode of destruction depends upon the maintenance of a continual high temperature and moisture, which will cause the seeds to either germinate and then decay, or to decay before germinating. The amount of moisture can be easily regulated, and by properly working over any pile of compost containing a large amount of organic matter the required amount of heat may be obtained. From the above experiments it would seem doubtful if the practice of keeping swine upon manure piles to cause slow decomposition is the best for manure containing weed seeds. It is also doubtful if the seeds of weeds, often put into the pens where pigs are kept, will be destroyed by the action of the little heat there generated. It would probably be safer in both of the above cases to compost the manure in large piles before using it upon the land.

The white dairy has become so abundant in many of our meadows that it is important to know at what stage of its blooming the seeds become ripe enough to germinate. In other words, if this weed is cut with the grass, are its seeds mature and dangerous? On this point Professor Maynard reports: After a series of careful examinations it has been decided that when the flower first reaches its full expansion few or no seeds are mature enough to germinate, but that it requires only a few days for these seeds to mature to full ripeness. In view of these facts it would not seem safe for the farmer to depend wholly upon the early stage of cutting, but to afterwards compost all manures made from fodder containing weeds of any kind.

Cattle turned out on the fields should not be entirely left to themselves. The more frequent visits are made to them more certain will the farmer be that nothing is going wrong with them. Cattle are liable to have trouble requiring attention in summer no less than winter. Yet whilst they are carefully attended to in the cattle season, they are by some almost wholly neglected whilst in pasture.



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Patrons answering or in any way corresponding with those advertising in these columns will oblige us by saying they saw the advertisement in these columns.

THE GRANGE.

Brother Patrons are requested to contribute for this column and to send their communications direct to the office of publication, Welland, Ont.

NATIONAL LECTURE.

The July Discussion Charges for July, as suggested by the Lecturer of the National Grange, is as follows:

Question 64.—Is the subject getting to be understood? Suggestions.—Patrons are deeply interested in the tariff question, and should study it well and understandingly.

Much has been said legislatively and politically on tariff for the past four years. But are we any nearer the solution on the tariff problem, upon its merits, than we were when the agitation commenced?

The difficulty is, there is too much selfishness that prohibits an impartial consideration of the subject upon its merits; self interest, political popularity and partisan ambition govern too much the leading agitation of the question.

Tariff, whether it be classed a burden or a blessing, should be equitably distributed upon the principles of justice. The regulation of the present tariff discriminates against agriculture, inasmuch as it exacts heavier duties on importations that enter largely into agricultural supplies.

The question should be carefully considered upon its merits and from an unselfish and non-partisan standpoint. Learn what kind of manufactured goods

if any, require government protection to continue the manufacturing. If we find that some need protection and others do not, we must then learn what should be free and what should not.

If it is necessary to protect American labor, so as to receive sufficient remuneration for services to enjoy the comforts of life, raise and educate their children into useful citizenship, instead of being forced into competition with the pauper labor of Europe, then tariff is right, for we must supply our millions with means of earning a livelihood.

If tariff does not add to the comfort of laborers, but to the profits of only well paid capital, then tariff is wrong. While honest labor is worthy of encouragement and may need stimulating, capital may at the same time become over-greedy and require restrictions.

Tariff, whether for protection or revenue only, may be difficult to regulate with justice to all, but surely it can be done more in harmony with justice and to the general welfare than any system yet proposed either in or out of Congress.

Extremes on either side of important questions are generally errors.

We must manufacture our own supplies as far as possible for us to do. We cannot afford to drain our country of its cash for foreign importation, neither can we afford, nor is it just to exact tariff on manufactured goods to gratify the greed of capital only. Justice and not selfishness must be the guide in the solution of this question.

The following questions present themselves for consideration in discussing the subject:

- 1. Would the repeal of a protective tariff discontinue or hinder the manufacturing interests of the country?
2. What would be the effect in the markets on agricultural products, if manufacturing to any extent were discontinued?
3. What would be the effect upon our monetary system by exporting our cash for foreign importations?
4. Would it be wise to prohibit the importation of such goods as we can manufacture at home, and remove the tariff from the same?
5. It is more necessary to protect labor in manufacturing than it is to protect it in the production of the raw material for the same goods?

AGRICULTURAL COLLEGE.

Successful students. The closing exercises of the Agricultural College took place on Thursday last. The following is the result of the examination:

HALL OF HONOR. A gold medal was presented to F. A. Carpenter by Mr. ... and silver medals to Messrs. Herbert Slater and A. Lehmann. The following is the list of successful candidates:—

DIPLOMAS. P. C. Black, Windsor, N. S.; P. A. Carpenter, Collingwood; A. Lehmann, Orillia; C. H. Major, Croydon, Eng.; P. C. Powys, Fredericton, N. B.; E. A. Saxton, Newtwich, Eng.; H. Slater, Taunton, Eng.; H. V. Tucker, Toronto; A. E. Wark, Wainstead; T. A. Wroughton, Bangalore, India; W. W. Stears, Ottawa.

HONOUR CERTIFICATES FOR EASTER EXAMINATIONS—FIRST YEAR. Agriculture and Live Stock—J B McKay, Stellarton N.S.; T Raynor, Rose Hall; J B Muir, North Bruce.

Natural Science—J B McKay, T Raynor, A. I. Ridings, Grafton; A Macpherson,

Montreal, and J B Muir, equal; G C Butler, London, England.

Veterinary Science—J B Mackay, J B Muir, H L Ridings, T Raynor, G C Butler. English Literature and Composition—T Raynor, H L Ridings, J Kemmis, Dublin, Ireland; G C Butler, J B Mackay, J B Muir.

Mathematics and Book-keeping—T Raynor, H L Ridings, J B Mackay.

SECOND YEAR.

Agriculture and Live Stock—A W Ballantyne, Stratford; P A Carpenter, Collingwood.

Natural Science—P A Carpenter, H Slater, Taunton, Eng; A E Wark, Wainstead, (Lambton), Ont; P C Powys, Fredericton, N B; A W Ballantyne, A Lehmann, Orillia.

Veterinary Science—P A Carpenter, A W Ballantyne and A Lehmann equal, H Slater, P C Powys.

English Literature and Political Economy—P A Carpenter, P C Powys, H V Tucker, Toronto.

Mathematics and Book-keeping—A Lehmann, P A Carpenter.

HONOUR CERTIFICATES FOR MIDSUMMER EXAMINATIONS.

First year.—Agricultural Live Stock—Raynor, Muir, Ridings, D N McIntyre, Natural Science—Raynor, McPherson, Muir, Ridings, McIntyre. W H Owen, Veterinary Science—Raynor, Muir, Ridings, R C Alexander, English Literature and Composition—Raynor, Mathematics—Raynor, Ridings, Muir.

Second year.—Agriculture (theoretical and practical)—Wark, Carpenter, McKay. Horticulture—Carpenter, H Slater, Lehmann, Powys.

Natural Science—Slater, Carpenter, Lehmann.

Veterinary Science—Carpenter, Slater, Wark, McKay, Lehmann.

English Literature—Carpenter, Slater, Powys Butler.

Mathematics—Carpenter, Lehmann and Powys equal, Slater, Wark.

SPECIAL LIVE STOCK AND VETERINARY CLASS—CERTIFICATES.

C M Carlaw, Warkworth; E A Cowley, Windsor; H S Holcroft, Orillia; W W Hubbard, Burton, N B; C A Kell, Chatham, Ont; J McGregor, Colborne; H B Sharman, Stratford; G C Sharman, Stratford; F W Skaffe, Montreal.

PRIZEMEN FOR EASTER EXAMINATIONS—FIRST YEAR.

Agriculture and Live Stock—J B McKay, T Raynor.

Natural Science—J B McKay, T Raynor.

Veterinary Science—J B McKay, J B Muir.

English Literature and Composition—T Raynor, H L Ridings.

Mathematics and Book-keeping—T Raynor, H L Ridings.

General Proficiency—T Raynor, J B McKay, H L Ridings.

SECOND YEAR.

Agriculture and Live Stock—A W Ballantyne, P A Carpenter

Natural Science—P A Carpenter, H Slater.

Veterinary Science—P A Carpenter, and A W Ballantyne and A Lehmann equal.

English Literature and Political Economy—P A Carpenter and P C Powys equal; H V Tucker.

Mathematics and Bookkeeping—Lehmann, P A Carpenter.

General Proficiency—P A Carpenter, H Slater, A Lehmann.

SPECIAL LIVE STOCK AND VETERINARY CLASS.

First Year Students—G Carlaw, G C Sharman.

Second Year Students—H B Sharman, W W Hubbard.

Prof. Brown's special prizes for arboriculture were awarded to Messrs. Mayor and Powis.

A FARMER'S GALA DAY.

Dominion Day was celebrated by the farmers of West Middlesex, by a grand picnic on the grounds of the agricultural society, at Strathroy. It is estimated that three or four thousand were present. After refreshments, games, etc., Mr. Wm. Cummings took the chair, and introduced a capital programme. Hon. John Carling, P. M. General, of Canada, Hon. Geo. W. Ross, Minister of Education, for Ontario, James Mill, principal of the Ontario Agricultural College, Guelph, and D. M. Cameron, M. P., for Middlesex, delivered addresses. It was a grand day's enjoyment and profit.

THE GRANGE ELEVATES.

At the San Jose, Cal., picnic the other day, Sister L. Woodhams said: In the homes of the Patrons of the present you will find evidence of culture and refinement equal to the city homes presided over by matrons and husbandmen whose practical thoughts and experiences have so enriched and ennobled their lives as to leave a halo of intellectual light surrounding their brow which in its serene beauty far exceeds the dazzling light of diamonds, rare or costly gems. In these homes are children of all ages, bright, happy children, full of health and spirits, both brain and body active with enough good in them, if their forces are wisely nurtured and directed to be an honor and ornament to home and society.

I say to you the principles which are taught in the Grange are refining, elevating and humanitarian; instil them into the minds of your young, plant the good seed of practical knowledge in the human mind and heart, that your memory may be kept fresh and green long after the weary body has returned to mother earth, and the spirit has been promoted to the higher Grange. Let us be earnest workers, that we may weave into our web of life some golden strands of human endeavor, which we may look upon in the higher life and feel that our first conscious existence was not wholly for selfish purposes, but to strengthen the claim of human sympathy and fraternal love.

There were many of us who could not well spare the time from our busy home life to meet here to-day; but believing such gatherings to be the bright oasis in life we laid aside our cares, feeling what we lost financially we gained in pleasures far better than gold.

FENCE POSTS.

The item of fence posts is a considerable one among farmers who are building much fence, and very many of our readers have doubtless been disappointed at the rapidity with which some of the posts that they have used have rotted in the ground. Iron posts naturally enough every wide-awake farmer is on the look out for some means of preserving his posts. The Scientific American inserts the following recipe for that purpose: Take boiled linseed oil and stir in pulverized coal to the consistency of paint. Put a coat of this over the timber before it is put in the ground. Those who have tried the plan say that it will preserve posts for an indefinitely long time. We have not tried, it but should like to hear from some of the readers of the CANADIAN FARMER upon the matter.

AMONG THE HERDS.

Transfers to June 20th, 1884.

B Bonny Lad [12036], by Commodore [9773], W H Pardo, of Buckhorn, sold to T R Smith, Romney.

C Mary Bell (Vol. 9), by Heir of Cranberry [5361], And. Newcomb, Blenheim, to C McGuigan, Buckhorn.

B King Alonzo [12038], by Viscount Barrington [10588], Messrs. G B Hall, Wright, to Hamilton Bros., Ottawa.

B Fear-No-Foo [11697], by Daisyburn Duke, [6804], Wm Milliken, Hagerman's Corners, to Francis Bell, Avonton.

B Markham Duke [11698], by Daisyburn Duke [6804], Wm Milliken, Hagerman's Corners, to John Lewis, Church Hill.

B Duke of Allan Park 2nd [11318] by Prince Albert [9111], Henry Brigham, Allan Park, to D J Davies, Durham.

B Bismarck [12041], by Earl of Kinnoul [6536], Hay & Paton, New Lowell, to James Clark, Vespra.

B Royal Duke 2nd [12045], by Royal Duke [7794], R Wilkinson & Sons, Warwick, to Jas E Smith, Wanstead.

B Jack of Bervie [12046], by Young John O'Gaunt [9599], John Moore, Rockwood, to James Willson, Bervie.

B Sterling's Glory [12050], by Beau [11732], D Johnston, Campbellford, to John Wilson, Sterling.

C Duchess of Newcastle 6th (Vol. 9), by Baron 2nd [6597], Jos Redmond, Peterboro, to D Johnston, Campbellford.

B Empire [12051], by Ned Hanlan [9010], M J Corkery, Thornhill, to James Robinson, Newtonbrook.

B Duke of Sydenham [12056], by King of Lambton [8784], Robt Auld, Warwick, to James Maidman, Forest.

B Norman by Chief [12059], by Prince Albert [9111], Jas Park, Durham, to Thos Fulton, Durham.

B Prince Albert [12063], by 5th Lord Red Rose [10178], T C Stark, Gananoque, to Jos G Haig, Gananoque.

B Duke of Southold [12064], by Prince John [7661], Geo F Lewis, Wmoma, to John Lyle, St. Thomas.

B Edward Blake [12067], by Knight of the Garter [8790], Geo Bryce, Mohawk, to John Wright, Mohawk.

B Moulton Chief [12068], by British Prince [6676], Francis Docker, Byng, to A Barker, Dunnville.

B Halton [12072], by Emperor [8533], Henry Smith, Brisbane, to Jos Lomas, Waldemar.

B Imperial Prince [12071], by Emperor [8533], Henry Smith, Brisbane, to Enoch Price, Marshville.

B Edward Hanlan [12069], by Halton [7159], Henry Smith, Brisbane, to Stewart McCutcheon, Ospringe.

B Whitevale Chief [12074], by 2nd Duke of Pickering [8456], Wm Major & Son, Whitevale, to Alex Waddell, Claremont.

B Glanford Hero [12075], by Lorne [7393], Allan Young, Glanford, to John Calder, Carluke.

C Lulu (Vol. 9), by Prowler [11381], John J Hindley, Barrie, to Jos Marshall, Jackson.

C Adelmira (Vol. 9), by British Baron [8171], Edwin Gray, Freeton, to Jos Marshall, Jackson.

B Prince Charlie [12076], by Rose Duke [9273], Robt Akins, Nassagaweyn, to Henry Daniels, Nassagaweyn.

B Rosy Prince 7th [12080], by 7th Duke of Oxford [7586], Richard Gibson, Oshawa, to Richard Briggs, Dunfermline.

B Prince Tom [12088], by Rosy Prince

5th [12680], Richard Briggs, Dunfermline, to James Peters, Arva.

C Adelmira (Vol. 9), by Marquis of Lorne [7163], Jos Beatty, Perth, to Jas Matland, Kilmarnock.

B Allandale [12090], by Count Springhill [1851], Jas Laidlaw, Clearwater, Man., to Thos Young, Clearwater, Man.

B Waterloo Bar n [1208], by Waterloo Wander [10592], Jos L Newle, Brampton, to Peter R. Duffin, B. Ontario.

B Arundel Duke [12091] by Haltonian [7164], Wm Harrison, et al., Milton, to Benj Tuck, Hanby.

C Princess Laidlaw (Vol. 9) by Prince Blom [9129], Thos Farrell, Vancouver, to Isaac Reid, Vancouver.

B Prince Imperial [12093], by Prince [9104], John Fletcher, Buckhorn, to Allan Maxwell, Alton.

C Star (Vol. 9), by North Star [5773] Josas Gosnell, Highgate, to Wilbur Huffman, Harwell Centre.

B Mountain Hero [12099], by Sir Richard Booth [11358], Geo B Bristow, Rob Roy, to Isaac Longhead, Southampton.

B Red Bob [12101], by Emperor [7659], Jas Stocks, Columbus, to Thos Stonehouse, Br. Okla.

B Prince Arthur [12103], by Prince [9065], Alex McKinnon, Hillsburg, to John McLellan, Alton.

B Erin Chief [12102], by Prince [9103], Alex McKinnon, Hillsburg, to Robert Henderson, Yarmouth.

B Village Sergeant [12098], by Butterfly's Athelstane [1719], G B Bristow, Rob Roy, to John Grierson, Ravenna.

B Major [12097], by Village Sergeant [12098], John Grierson, Ravenna, to James Frece, Meaford.

A Wide Awake Druggist.

Mr. H. W. Hobson, is always wide awake in his business, and spares no pains to secure the best of every article in his line. He has secured the agency for the celebrated Dr. King's New Discovery for consumption. The only certain cure known for consumption, coughs, colds, hoarseness, asthma, hay fever, bronchitis, or any affections of the throat and lungs. Sold on positive guarantee. Will give you a trial bottle free. Regular size \$1.00.

An Editor's Tribute.

Theron P. Keator, Editor of Ft. Wayne, Ind., "Gazette" writes: "For the past five years have always used Dr. King's New Discovery, for coughs of most severe character, as well as for those of a milder type. It never fails to effect a speedy cure. My friends to whom I have recommended it speak of it in same high terms. Having been cured by it of every cough I have had for five years, I consider it the only reliable and sure cure for coughs, colds etc." Call at any drug store and get a free trial bottle. Large size \$1.00.

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Mrs. Mary A. Dailey, of Luncheonock, Pa., was afflicted for six years with asthma and bronchitis, during which time the best physicians could give no relief. Her life was despaired of, until last October she procured a bottle of Dr. King's New Discovery, when immediate relief was felt, and by continuing its use for a short time she was completely cured gaining in flesh 50 lbs. in a few months.

Free trial bottles of this certain cure of all throat and lung diseases at any drug store. Large size \$1.00.

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There are but few that have never suffered from intolerable pain from tooth-ache, neuralgia, or like acute pains. To them such an instant relief as Fluid Lightning is an unalloyed blessing in time of trouble. Not only a speedy relief, but a medicine to be taken for days. One application of Fluid Lightning cures. Sold at T. Cumine's.

Prominent among the greatest medical discoveries, by the many cures it has effected, McGregor's Speedy Cure leads the van. Subject to the minutest chemical analysis, it has been found to contain none of those injurious ingredients characterizing the worthless specifics daily offered to the public. Every ingredient possesses a peculiar adaptability to the various complaints for which it has been compounded, and its efficacy is being established by testimonials hourly received. We are therefore confident that we have a preparation which we can offer to the public with the assurance that it will be found not only a relief but an absolute cure for dyspepsia, liver complaint, indigestion, constipation and impure blood. Free trial bottles at T. Cumine's drug store.

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The firm of Ormand & Walsh, druggists, of Peterboro, say Dr. Fowler's Wild Strawberry is one of the best standard medicines for summer complaints.

Nothing gives such beautiful colors as the Star Dyes.

How to MAKE CANDY.—This book gives full directions for making all kinds of plain and fancy candy. The recipes for making caramels, chocolate drops, French mixed and all other kinds of candies contained in this book are the same as used by the leading city confectioners. Any one can have these candies at home at less than one third the usual cost. Sent postpaid for 50 cents (no stamps taken). Address ROCHESTER PUBLISHING CO. 32, 33 & 33 1-2, Osburn Block, Rochester, N. Y.

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The best salve in the world for cuts, bruises, sores, ulcers, salt rheum, fever, tetter, chapped hands, chilblains, rashes, and all skin eruptions, and positively cures piles, or no pay required. It is guaranteed to give perfect satisfaction, or money refunded. Price 25 cents per box. For sale by all druggists.

A Sudden Attack.

All people, and especially travellers, are liable to a sudden attack of cholera morbus, diarrhoea and dysentery. Dr. Fowler's Wild Strawberry is the most prompt and reliable remedy known.

It is no Wonder

that so many people sink into untimely graves when we consider how they neglect their health. They have a disordered liver, deranged bowels, constipation, piles or diseased kidneys, but they let it go and think they "will get over it." It grows worse, other and more serious complications follow and soon it is too late to save them. If such people would take Kidney-Wort; it would preserve their lives. It acts upon the most important organs purifying the blood and cleansing the system, removes and prevents these disorders and promotes health.

To the Ladies.

McGregor & Parke's Carbolic Cerate will cure any case of pimples on the face, or rough skin on either hands or face and leave them soft as silk. It will also heal any sore when all other preparations fail. Thousands have tested it. Ask your druggist for McGregor & Parke's Carbolic Cerate, and do not be persuaded to take anything else claimed to be as good. It is but 25c. per box at T. Cumine's drug store.

As a Remedy to all Mankind.

In these times when our Newspapers are flooded with patent medicine advertisements, it is gratifying to know what to procure that will certainly cure you. If you are Bilious, blood out of order, Liver inactive, or generally debilitated, there is nothing in the world that will cure you so quickly as Dr. King's Bitters. They are a blessing to all mankind, and can be had for only fifty cents a bottle of any drug store.

A Good Time.

When is the best time to take a blood purifier? Whenever the blood is foul and humours appear, or when the system is debilitated take Burdock Blood Bitters.

A host of bodily troubles are engendered by chronic indigestion. These, however, as well as their cause, disappear when the highly accredited invigorant and alterative, Northrop & Lyman's Vegetable Discovery and Dyspeptic Cure, is the agent employed for their removal. A regular habit of body, and a duo secretion and flow of bile, invariable result from its persistent use. It cleanses the system from all irregularities, and restores the weak and broken down constitution to health and strength.

Mr. R. C. Winlow, Toronto, writes: "Northrop & Lyman's Vegetable Discovery is a valuable medicine to all who are troubled with indigestion. I tried a bottle of it after suffering for some ten years, and the results are certainly beyond my expectations. It assists digestion wonderfully. I digest my food with no apparent effort, and am now entirely free from that sensation, which every dyspeptic well knows of unpleasant fulness after each meal."

It is a remarkable fact that Dr. Thomas' Electric Oil is as good for internal as external use. For disease of the lungs and throat, and for rheumatism, neuralgia, crick in the back, wounds and sores, it is the best known remedy, and much trouble is saved by having it always on hand. Jacob Loochman, Buffalo, says he has been using it for rheumatism. He had such a lame back that he could do nothing; but one bottle entirely cured him.

R. C. Bruce, druggist, Tara, says: I have no medicine on my shelves that sells faster or gives better satisfaction than Dr. Thomas' Electric Oil, and the sale is constantly increasing, the past year being the largest I have ever had. One of my customers was cured of catarrh by using three bottles. Another was raised out of bed, where he had been laid up for a long time with a lame back, by using two bottles. I have lots of customers, who would not be without it over night.

DAILY.

A STUDY OF MILK-SPLITTING.

BY PROF. L. B. ARNOLD.

It is generally recognized that the ripening of cream in the souring of it... This is a long process that the souring may have something to do with the result...

The butter from the first was very high flavored and delicious, and remarkable for its long keeping... The butter from the latter was less flavored and equally remarkable for being short lived...

These statements are demonstrated facts, and they explain why submerging milk in ice-water, or in any water, while it affords the best of protection from deleterious influences without, fails in promoting the highest possible attainment of goal in the resulting butter...

The facts above stated are not offered with any thought of settling the question whether acidity plays any part in ripening cream or developing butter flavor...

ing is increased or diminished or not at all affected by the fact of souring, but they do demonstrate that souring alone does not develop any new or improved flavor in the butter...

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Are you disturbed at night and broken of your rest by a sick child suffering with pain of cutting teeth? If so, send at once and get a bottle of Mrs. Winslow's Soothing Syrup for children teething...

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"Brown's Household Panacea" has no equal for relieving pain, both internal and external. It cures pain in the side, back or bowels, and rheumatism, toothache, lameness and any kind of a pain or ache...

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Ask for Wells, Richardson & Co's Improved Butter Color, and take no other. Beware of all imitations, and of all oil colors for every other one is liable to become rancid and spoil the butter into which it is put...

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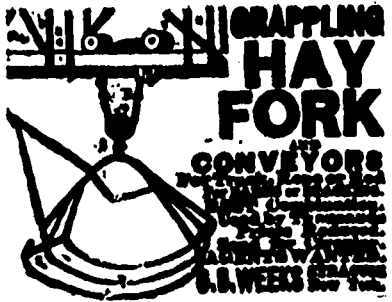
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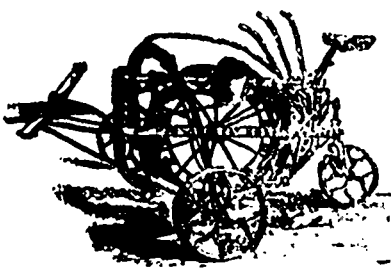
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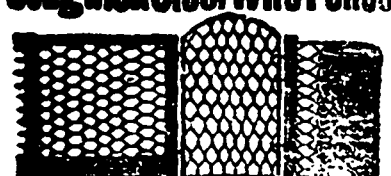
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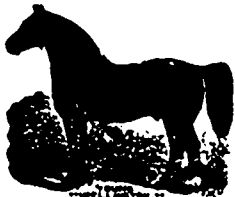
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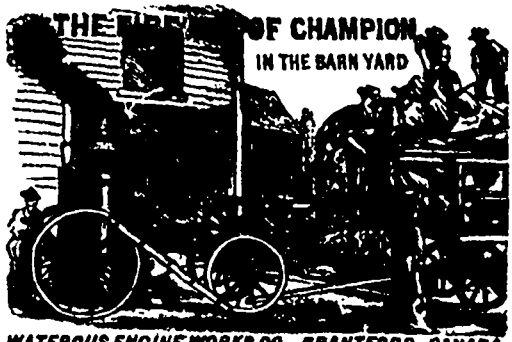
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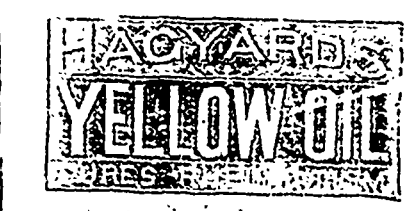
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Braat County—Barford Township.

3251—The "Merrill's Farm," containing 100 acres, of which 65 are cleared and 4 free from stumps; there are 16 acres meadow; remainder is wooded with beech, maple, or ash, etc.; a heavy and sandy loam, nicely rolling and easily worked; it has a spring and the well are situated near the house; fences are rail, dwelling frame, on blk foundation, roofed with shingles; 14 stores, 2 1/2x18; contains 6 rooms and a kitchen 18x24, in good repair; frame barn, on blocks, 30x50; taxes amount to \$12, with 8 days road work; it is on the gravel road, 3 miles from school, and churches within short distance; post office 300 yards; Norwich, on G. T. R., 4 miles; Brantford, Simcoe and Woodstock each 90 miles. Price \$5,000.

Grey County—Proton Township.

2404—100 acres, of which 75 are cleared, balance hemlock, cedar, elm, etc.; 2 springs and a creek; fences rail. The dwelling is rough cast, containing 6 rooms; also an old log dwelling; barn is log, with frame granary 18x24; taxes \$9. Orchard is 1/2 acre. School is 1/2 mile; the nearest P. O. is at Cedarville, 3 miles, and the Railroad is at Mount Forest. Price, \$2,500. 1/2 cash, balance to suit at 6 per cent.

Halton County—Nelson Township.

3270—A useful farm of 83 acres, 70 acres cleared, 50 free from stumps; good hard wood bush; soil clay and loam; there is a spring and creek, and well at the dwelling; fences principally rail; dwelling is frame, on stone foundation, 20x30, 1 1/2 stories, and contains 6 rooms, with kitchen 20x24, and an extra wing 18x30; also a small dwelling on the north corner of the lot; barn is frame, on stone foundation, 30x36, driving house and stable. Taxes \$13, with 3 days' road work. Orchard, 1/2 acre, containing apples, pears and cherry trees, all bearing. School and Methodist church 2 1/2 yards distant; English and Presbyterian churches 4 miles; Zimmerman post office, 1/2 mile; Zimmerman railroad and telegraph offices on the N. & N. W. R. R., 3 miles; Milton 8 miles. Price \$3,000. \$1,000 cash, balance in 6 years, with interest at 7 per cent.

Muskoka District—Humphrey Township.

3447—A cheap farm of 100 acres, 30 cleared, 70 in bush, hardwood and pine; soil clay loam, rolling and easily worked. There is a spring and creek, well at house; well ditched, and fenced with rails. Frame dwelling on stone foundation 30x20, 1 1/2 stories, 5 rooms; new frame barn 30x60, stone foundation. Taxes \$2, and 3 days' road work; on gravel road, convenient to churches, school and P. O. at Ashdown, telegraph office at Roseau, 1/2 miles; buildings alone worth the money. Price, \$650; \$300 cash, balance in three years with interest at 7 per cent.

Norfolk County—Walsingham Township.

3449—Good farm, 141 acres, 70 cleared and free from stumps, 30 in good hardwood bush; soil partly clay loam and partly sandy loam; spring and wells at the house; fences are principally rail; frame house on stone foundation, 18x20, 2 stories, 20 rooms, cellar containing brick well 18x20, outside kitchen 14x20; wing 19x19, all in good repair; frame barn 50x70; cellar underneath on stone foundation with oak sill. Barn No. 2, 30x50 near which is a living stream. Taxes \$30 and 8 days' road work; 2 orchards of 1/2 acre, containing 200 apple, 300 pear and cherry trees all bearing; gravel road 1/2 mile, school 1/2 mile, English and Baptist churches 3 miles, Presbyterian 13 miles, Methodist 5 miles, Mill post office 2 miles; telegraph office and market town at Port Rowan, 9 miles. Price \$7,000; half cash, balance in from 8 to 10 years at 7 per cent.

Oxford County—North Norwich Township.

3210—Fine stock, dairy, or grain farm of 215 acres; 160 cleared and free from stumps, 35 in bush, consisting of beech, maple, oak, elm, ash, etc. Soil is clay loam, gently rolling and easily worked; it is watered by a creek, 2 wells and cisterns; well ditched, and fenced with rails, pickets and yards; dwelling is frame, on stone foundation, roofed with shingles, 30x20, 1 1/2 stories, with 7 rooms, kitchen 20x24, and cellar 18x24. There is also a frame cottage on the place, which supplies the house and barn with water. It is on a gravel road, 2 miles from school and within easy distance of churches, etc.; Springfield 4 miles, Norwich (on G. T. R.) 3 miles. Price \$12,000; \$6,000 cash and balance to suit with interest at 7 per cent.

Simcoe County—Innisfil Township.

3293—The "Big Bay Point Farm" contains 17 1/2 acres, 93 cleared, 25 free from stumps. There is a fine pine grove, the rest of the timber being beech, maple, butternut; the soil varies from clay loam to heavy clay; the farm has lake frontage; there is a well at the house, and 1/2 mile of ditching done. The dwelling is of frame on stone foundation; 2 wings, 30x28 and 22x22; 2 stories and cellar, 10x20, and a kitchen 18x24. There is also a frame cottage on the place, which supplies the house and barn with water. There is also a log stable, 43x21; cow shed, 12x18, 18x30; frame barn, 30x60, on stone foundation. There is also a log stable, 43x21; cow shed, 12x18, 18x30; frame barn, 30x60, on stone foundation. Taxes \$25, and nine days road work. Orchard of 1 1/2 acres, containing 100 trees of all varieties; the farm is 2 miles from gravel road and 1/2 mile from school. The English church is 7 1/2 miles; Methodist, 4 miles; Painswick P. O., Craig Vale It. R. and telegraph office 8 miles on the N. E. R., and Barrie 13 miles. Price, \$9,000; \$4,500 cash, balance in 4 years with interest at 6 per cent.

Welland County—Pelham Township.

3264—This very valuable property, known as the "Ridgville Fruit Farm," containing 35 acres, all of which are cleared and 5 seeded down; fences are rail and picket; dwelling house is of frame, on stone foundation, roofed with shingles, 45x45, 2 stories and 10 rooms; cellars underneath whole of house, 45x45; kitchen outside main building, 3 x 30—all in capital repair; barn is frame, 40x50, on stone foundation, with root cellar and cow stable underneath; also fowl house, 30x15; too house, 15x16; coach house and stable, 30x40; shed containing barn and stables, 45x20—all in good repair; taxes amount to \$23 and 9 days road work; orchard contains 30 acres, with the following fruit, viz.: about 1,500 grape vines, 1,200 peach trees, 200 pears, 25 plums, and about a half-acre of strawberries and raspberries—all bearing; the farm is situated on the gravel road; school 1 1/2 miles away; churches of all denominations about 1 1/2 miles; post office, 50 feet, telegraph 1 1/2 miles; Welland, the railroad station and market, 6 miles, is situated on the Welland Railway. Price, \$9,300; \$5,000 cash, balance in 10 years, with interest at 6 per cent.

Wellington County—Luther Township.

695—A good farm of 208 acres; 45 cleared, under cultivation and well fenced; balance, 163 acres excellent hardwood land, heavily timbered with maple, beech, elm, hemlock and basswood, and of first-class cedar and valuable mixed timber; this is a particularly good lot, it is a corner and can easily be divided into two farms of 100 acres each, good rail fences, 1 1/2 miles from P. O., and one mile from school house; there is a splendid new frame house, 30x22 rooms, well finished; new frame barn, about 30x40; log stables on the premises.

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