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THE
ONTARIO FARMER;

A MONTHLY JOURNAL OF

Agriculture, Horticulture, Country Life, Emigration, and the Mechanic Arts.

VOL. I.

TORONTO, MAY, 1869.

No. 5.

REPORT OF THE COMMISSIONER OF
AGRICULTURE AND ARTS OF THE
PROVINCE OF ONTARIO, FOR 1868.

[THIRD NOTICE.]

It now remains for us to notice Appendix G, containing the report of "The Fruit Growers' Association of Ontario," with local reports annexed.

The Fruit Growers' Association was formed but a few years ago, and has been only one year in connection with the Bureau of Agriculture; notwithstanding, we have here upwards of fifty pages of useful and suggestive horticultural matter. As this large mass of information was collected in a somewhat hurried manner, and with little opportunity for collation and condensation, there are not perhaps that order and lucid arrangement of materials which are desirable and convenient in such reports—a defect which, no doubt, ampler opportunity and experience will correct in the future.

After a statement of the organization and financial condition of the Society, which appears to be financially and otherwise prosperous, holding out reasonable hopes of a long and successful career of usefulness, we have a very interesting address by the President of the Association, W. H. Mills, Esq., delivered before the annual meeting, held at Hamilton, in September last. Mr. Mills gives a graphic sketch of the origin and progress of the Society, paying a grateful tribute to the memory of the late Judge Campbell of Niagara, and Dr. Craigie of Hamilton; recognizing also the valuable services of several yet living, and expressing a conviction that under the auspices of the Bureau of Agriculture, the Society would devote constantly increasing

energies in cultivating the wide and interesting field which its labours embrace.

The report contains a valuable prize essay on the cultivation of the apple, as applicable to the Province of Ontario, by D. W. Beadle, Esq., of St. Catharines, the accomplished and energetic Secretary of the Association. Our space will not admit of anything like a synopsis of the essay, but we will try to give our readers an idea of a few of its more prominent points.

Under the head of *soil*, Mr. Beadle remarks that any ground, which will produce a good crop of corn or potatoes, is suited to the apple. A dry calcareous loam is the best, but clays, when drained and deeply cultivated, will do well for the purpose, and even light sands may be so managed, by mixing manure and other descriptions of soil, as to become adapted to fruit culture generally. *Transplanting* may be successfully done after the fall of the leaf in autumn, but in this climate experience seems to indicate that spring (before the buds break) is more reliable. Great care is necessary in removing trees, so as to injure the roots as little as possible, and to plant them in their new locations, so as to arrange the roots as nearly as practicable in their natural and relative positions. Newly-planted trees should be carefully staked, and before the heat of summer commences, mulched with coarse litter, to keep the soil moist and cool. Water copiously immediately after planting. *Cultivate* orchards annually, till at least they come into bearing. Prune gently in April, but never late in the fall. Manure liberally every alternate year, and a dressing of lime will be found generally beneficial. Weeds should be carefully kept down, and every precaution em-

ployed to prevent the young trees being injured either by insects or any other means.

There is no part of the yet settled portions of this Province where the apple cannot be successfully raised, provided proper attention be paid to cultivation, shelter, and the procuring of young healthy trees of *suitable varieties*. There are, in fact, but a comparatively few sorts generally adapted to our soil and varying climate. Planting many varieties in one orchard is not to be commended. For family use along the front, the following will be found adapted:—"For SUMMER, *Early Harvest* and *Red Astracan*, as sour apples, and the *Sweet Bough*; for EARLY AUTUMN, the *Duchess of Oldenburgh*, *Gravenstein*, *Primate*, and *Jersey Sweet*; for LATE AUTUMN and EARLY WINTER, the *Ribston Pippin*, *Hubbardstone-Nonsuch*, *Fall Pippin*, and *Snow Apple*; for MID-WINTER to March, the *R. I. Greening*, *Northern Spy*, *Esopus Spitzenberg*, *Pomme Grise*, and *Talman Sweet*; for SPRING, the *Golden Russet* and *Roxbury Russet*." "For market, the most profitable varieties are *Red Astracan*, *Duchess of Oldenburgh*, *Gravenstein*, and *Hubbardstone-Nonsuch*, ripening in the order in which they are named, for near or home market; and for shipping, the *R. I. Greening*, *Baldwin*, *Golden Russet*, and *Roxbury Russet*, will yield the largest pecuniary returns." For the colder parts of the Province, the *Red Astracan*, *Duchess of Oldenburgh*, *Saint Lawrence*, *Snow Apple*, *Borassa*, *Pomme Grise*, and *Golden Russet*, may be recommended. "If there be any spot so chill and inhospitable that these varieties will not thrive, recourse must be had to the still more hardy crabs, of which the *Yellow Siberian*, *Golden Beauty*, *Montreal Beauty*, *Transcendent* and *Hyslop Crabs*, are the best."

The author insists on the importance of carefully gathering and packing all our more valuable varieties of apples, a practice too much neglected; and gives some valuable advice of a practical character in relation to insect depredations—an important part of his subject into which our limits will not allow us to enter.

The report contains a very interesting paper, full of practical suggestions, on "*Hybridizing and Crossing the Grape*," from the pen of Mr. Mills, the President, who, it is well known, has given special attention to this important

subject. After describing the *modus operandi* of this somewhat delicate operation, a tabulated statement follows of a number of interesting results obtained by Mr. Saunders, of London (Ontario), from hybridizing quite a number of varieties both of gooseberries and grapes. Mr. Charles Arnold, of Paris, another of our enterprising horticulturists, has of late years won himself a name by his experiments in this way with grapes and raspberries, and has now an acre of some dozen new kinds of winter wheat, the results of several years' perseverance in hybridization. Mr. Bishop, of St. Thomas, has succeeded in bringing out a new seedling strawberry, which promises to add another valuable sort to the already long list of this delicious fruit. Now, exertions like these are a credit, not only to the individuals more immediately concerned, but to the Province of Ontario, the comfort and prosperity of whose people they tend directly to promote.

Mr. Saunders, of London, who is fast earning a distinguished reputation as an entomologist and horticulturist, contributes a short paper on the "*Apple Worm*," and another, consisting of some dozen pages, on "*The fruit crop in the vicinity of London during 1868, with remarks on their insect enemies and diseases*." These papers abound in information of a kind which should be widely diffused. We would suggest the desirableness of publishing these and other papers contained in the report, in a separate and amended form, for more extensive circulation. Insect depredations among our different kinds of fruits have, of late years, alarmingly increased, and it is only by the wide diffusion of reliable information, given in a popular manner, that the evil can be effectually met. It is evident, even from what this report of the Fruit Growers' Association contains, that by proper attention to soils, the selection of healthy specimens of suitable sorts, and a vigilant look-out for the early manifestation of insect attacks and injuries, many of the evils, now so loudly complained of and deplored, might, to say the least, be greatly mitigated, and ultimately, perhaps, by continued and combined perseverance, entirely overcome.

After describing that most destructive beetle, the *curculio*, and referring to the total or partial

failures of most of what have, at some time or other, been proposed as infallible remedies, Mr. Saunders remarks that "Mr. Charles Arnold, of Paris, has adopted a method which he finds to be successful. It is to make the soil quite smooth around the roots of the tree, and white-wash it with a thick coating of lime, which very soon forms a hard crust. Should any of the beetles remain in the chrysalis state during the winter (which is very doubtful), they cannot get through the crust, and when the stung fruit falls on the surface, it is not necessary to gather it, since the grub, when it comes out of the plum, will die, because it cannot penetrate into the ground. There may be also another reason why trees thus treated should be avoided by the curculio. It has often been remarked that trees overhanging streams of water usually have good crops, while others around them may fail; the instincts of the parent beetle teaching it to avoid depositing its eggs in a position where the future progeny will necessarily fall into the water and perish. Might not the glaring white surface of the lime have a similar influence in deterring the insect from operating in a quarter so unsafe?"

The report also contains some useful information in reference to the yield and quality of fruit of last year, which, on account of the severe drought and insect injuries, must be regarded as falling much below an average both as to quantity and quality. This information was chiefly derived from writers and observers resident in the older settled districts of the Province, and their communications contain much which the practical horticulturist will find interesting and valuable. The Fruit Growers' Association has commenced a valuable and much needed work, and its directors already show an earnestness of purpose, which, if continued, cannot fail to carry it onwards with success. What is now felt to be most urgent is a copious collection of well-ascertained facts, carefully collated and generalized. We are pleased to learn that the Commissioner of Agriculture, at the suggestion of the Directors, has issued an extensive series of interrogations relating to fruit culture in all its bearings, to the Horticultural and Agricultural Societies of the Province, in connection with his Department; and it is earnestly to be desired that all to whom applica-

tion for obtaining information is made, will spare neither time nor pains to render the returns as complete and accurate as possible. The public may therefore look forward to the next report for much more extended and minute information on this attractive and important pursuit.

WHY DO BOYS LEAVE THE FARM ?

A variety of answers may doubtless be given to the above question. Among them the following has more truth than poetry in it.

Country homes are, for the most part, unattractive; and endless toil along with meagre pay are the almost invariable characteristic of farming as a business for boys. The country lad of sixteen goes to the village or town, and sees neat, well-painted houses, pretty flower gardens and ornamental shrubberies, finds that the lads of his own age who are at trades, begin work at seven, leave off at six, and in the evening can dress up and enjoy themselves out of doors, or sit down comfortably and read in doors; moreover they have wages or pocket money under their own control. On the contrary his home, so called, is devoid of beauty within and without. If there is a parlour in the house it is a cheerless place with old fashioned furniture in it, and no music or pictures to make it attractive; or if a little better furnished, it is shut up, and only used for a marriage or funeral, or some very unusual, unfrequent occasion. Outside there are no shade trees, flowers or shrubbery; no neatly kept door-yard, or spacious barn; but all is bare, naked and desolate. He rises at break of day, and work begins as soon as he is up. A variety of odd jobs keep him busy until breakfast time. When that meal is over the tug of the day's work must be encountered. It is on until sunset, with a very brief intermission for dinner, and possibly for tea, unless that meal becomes literally "supper," by being postponed until field work is over. Then there are the evening "chores" to do up. These finished, he is only too glad to creep away to his comfortless dormitory, in quest of sleep. He is clad in rough, slovenly garb, and even his Sunday attire does not encourage self-respect. To crown all, he is very seldom in possession of any money of which he is owner and master.

While we are glad to know that there are many farm homes to which the above picture does not apply, yet it has its counterparts here there and every where all over the land. And sure we are, that if boys are to be kept on the farm, there must be more effort put forth to render life there pleasant and attractive. A constant round of monotonous, unrelieved drudgery is making hundreds of country lads long for the time when relieved of parental control, free to go where and do what they will, their first step in a career of independence will be to abandon farm life and strike out for themselves in some other line of things.

To remedy this evil let some attention be paid to the ornamental and beautiful, both in-doors and out of doors. Even a log house may be made home-like and attractive by the exercise of neatness and taste. Multitudes of commodious houses built of better materials, are desolate as barns for want of a few embellishments within and without, that would cost but little time and less money. Paint, whitewash, wall paper, carpets, rugs, some fancy articles, a well-hung picture here and there, a few good periodicals and books, a musical instrument of some kind; shade trees, grass plot, flower beds, climbing roses and other creepers, neat fences and nice gravel walks;—what is there to hinder any thrifty, energetic farmer from having these things about him? Generally speaking, nothing except his own contempt for them. In some cases the struggle to get the place paid for, stocked, and furnished with implements, forbids much launching out in the directions indicated, but it is no rare thing for people who think themselves too poor to indulge in matters of taste and refinement, to spend in tobacco and whiskey what, combined with a little well directed effort, would completely revolutionize their surroundings, and make home what it should ever be, a charming spot.

Boys are often overworked, and nothing more effectually destroys youthful energy than this, in accordance with the old proverb, "all work and no play, makes Jack a dull boy." All young animals were meant by the Creator to indulge more or less in sportiveness, and relaxation is necessary for the highest well-being of both young and old. Be considerate and rea-

sonable, you that are fathers, and do not expect your sons to be always on the go. Nothing will be lost in the long run by giving them a little time to themselves, and letting them have an occasional holiday. They will work with more cheerfulness and energy if stimulated by such indulgences.

Boys should have something they can call their own,—a bit of land to till on their own account, a calf, colt, or some sheep to raise, or some regular allowance made them, to cultivate the feeling of independence and self-reliance. In short boy-nature should be studied and wisely managed. Thought, plan, and even sacrifice on the part of parents will be required if they are to be so brought up as to cling to the old homestead, and choose, for its own sake and in preference to other avocations, life on the farm. Is not the object one of sufficient importance to demand attention and repay endeavour? The young man who forsakes the farm to try his luck in the city plunges into a sea of uncertainty, a scene of temptation, and a whirl of excitement. He may go through it all unscathed, but the danger is that he will fall a prey to evil influences, and have cause for unceasing regret that he ever turned his back upon the country and the farm.

NINTH ANNUAL REPORT OF THE BOARD OF AGRICULTURE OF VICTORIA, AUSTRALIA, 1868.

There appear to be twenty-nine Agricultural Societies in the Colony of Victoria (formerly known as Australia Felix) in connection with the Board of Agriculture. The public grant in aid to these Societies amounted last year to £4500 sterling, exclusive of £1000 for premiums and experiments, and £750 to meet the expenses of the Board. The Societies hold annual exhibitions, which are, on the whole, very creditable to so young a Province, hitherto more noted for gold-seeking than agricultural pursuits. Premiums, varying from £5 to £20 each, are given in the different departments of live stock, in which great improvements have recently been effected. Liberal prizes are likewise awarded to grain, vegetables, implements, and machines. Special encouragement has been given to grape culture, with very satisfactory results, and last

quantities of different kinds of wine, of good quality, have been manufactured, with every prospect of a continued increase. Numerous experiments have been made in preserving meat in a fresh state (beef and mutton), chiefly with a view to exportation, and after overcoming many difficulties, the prospect for the future appears to be encouraging.

Notwithstanding the frequent droughts to which Australia generally is liable, it would appear, from Mr. Mitchell's report on farm experiments, that root crops are often highly successful in Victoria. He speaks of the sugar beet and common mangel wurzel as being very productive and of superior quality; and in feeding cows, he gives the former a decided superiority over the latter. He contends that protection from cold and wet, in an Australian winter, is quite as necessary for the well doing of milch cows as it is in Britain; and concludes with the following remarks on the use of "Picksley & Sims' Combined Pulper and Slicer":—"My practice is to dress the roots as clean as possible, pulp them down, and mix the pulped mass with moistened chaff and bran; it is then laid upon a heap and covered with bags, until fermentation sets in, before it is given to the cows. The eager manner in which cattle rush to get this food, and the way they lick out the troughs in which they are fed—clean as ever dog licked platter—is proof of their liking for it, and the result in milk and cream is pleasing, because profitable evidence of its value." This practice appears to be widely extended, embracing countries of diverse climates; and the few instances of it in Canada that have come to our notice have been of a favourable character.

HORSE EDUCATION.

Endowed with wondrous intelligence and great docility, no animal which man has occasion to use, is more easily educated than the horse. In fact he is what man makes him. His faults and bad habits are taught him by his human master. You cannot name an evil trick which lessens his value for the service of man, into which he has not been initiated by some one who has owned him.

Horses learn very quickly, and have amazing tenacity of memory. Hence the importance

of educating them rightly. One of the most needful things to a farmer, is knowledge of horse nature and horse taming. Very few professional horse-breakers are to be found in country places, and there is no need of them, for the science of horse-breaking is very simple, and every farmer ought to master it, so as to be able to manage his own animals without dependence on any one. "Horse-breaking," by the way, is a very unsuitable phrase, in fact, a misnomer. The young horse must be subjugated, but when once his will is broken, which is a matter of but a few minutes, there is nothing else to break. There are no bad habits or vicious ways to reform. He is like wax in your hands, ready to be moulded, and if he does not become a pattern of equine virtues, blame the preceptor, and not the scholar.

Three requisites pretty much express what is needed rightly to educate a horse;—firmness, kindness, and common sense. To know how to blend these, and make them bear on the noble animal, whom you would train to usefulness, constitutes the whole science, art, secret and philosophy of horse education. There is nothing mysterious or occult about the thing. It is within the reach of any person possessed of ordinary intelligence.

We have been led into these remarks in consequence of having lately made the acquaintance of Prof. Graves, a professional horse-tamer, who makes a specialty of curing vicious horses of the bad tricks their stupid masters have taught them, and teaching how to educate the horse. This gentleman is making a tour of our province, temporarily establishing at central points a school both for horses and men. We have had an opportunity of studying his methods and mastering his secrets, and can give him our most unqualified endorsement and commendation. We consider him a public benefactor, and would say to all our readers, in whose vicinity Mr. Graves may open a school, by all means take a course of instruction. Prior to our attendance, we thought we knew a thing or two about horses, but five times the instruction fee would be no inducement to relinquish the additional knowledge thus gained. If everybody who has to do with horses would only learn and practice what Prof. Graves can teach, our equine

property would be increased in value at least twenty-five per cent., horses would be spared a large amount of needless suffering, and human beings be exempt from risk to life and limb.

CHINESE GARDEN POWDER.—This preparation, which is advertised in our present issue, by Hugh Miller & Co. of this city, meets a want very extensively felt, and is highly recommended by Geo. Leslie & Son, nurserymen, R. Gutthrey, gardener to the Provincial Lunatic Asylum, and others, as an effectual destroyer of all kinds of insects and caterpillars which may prey upon currant bushes, shrubs, and garden plants.

EDITOR'S BOOK TABLE.

EMIGRATION TO CANADA.—This is a pamphlet of 39 pp., issued by authority of the government of Ontario, for the information of intending Emigrants, and others, in respect to the soil, climate, resources, institutions, free grant lands, &c., of this province. A large edition of it has been printed, and as the government is anxious to give it a wide diffusion, any parties who have friends in the old country, to whom they wish to send information about Canada, can have copies of it sent on furnishing addresses to the Commissioner of Agriculture.

Mr. T. J. Day of Guelph sends us samples of the following publications:—

ROUTLEDGE'S POPULAR RECITER.—Edited and selected by J. E. Carpenter, pp. 246. A good collection of recitations, both in prose and poetry. Sent by mail, prepaid, for 30 cents.

SUNDAY MAGAZINE, for May.—By mail, at \$2 a year.

GOOD WORDS, for May. By mail, at \$1.75 a year.

DAVIDSON'S TEMPERANCE MELODIST, containing the music and words of above 150 songs, including the temperance compositions of Henry Russell, &c. By mail, for 30 cents.

OUR FEATHERED FAVOURITES.—A case containing a dozen beautiful coloured engravings of American birds, on cards, with descriptions on the back of the several birds. Every lover of birds should have this package. By mail, for 30 cents.

OUR SCHOOLDAY VISITOR.—The charm of this popular Magazine consists, in a great measure, in its excellent variety, and the wholesome manner in which it is presented. In almost any number will be found something adapted to the voriest little folk, just lisping their "First Lessons," on up to the fathers and mothers. In fact *Our Schoolday Visitor* is not only a first-class boys and girls' magazine, but a repertoire of good reading for the whole family. The following is the table of contents for May:—

Pluck; or, Steps in the Lives of the Keene Family, by *Dr. C. D. Gardette*, illustrated; The Humming Bird and the Bee, by *Mrs. Mary E. Neely*; The Highway to Success, by *J. W. Sanborn*; By the Wayside, by *Hattie Herbert*; The Glad Surprise, by *Eliza Doolittle*; The Senses Among the Animals, by *Humanitas*; Cruel Jim, by *Knickerbocker, Jr.*, illustrated; Rambles Among the Insects, by *Uncle Samuel*, illustrated; The White or Polar Bear, illustrated; Biographical Sketch of Alexander Clark, A. M., by *Prof. J. W. Shoemaker*, with portrait; Our little Grey Mouse, by *Mrs. C. H. Gildersleeve*; On the Look-out, by *Jesse Carroll*, illustrated; Kitty's Doll, a dialogue for the very little folks, by *Mrs. L. E. V. Boyd*; The Three Little Brown Brothers, by *Uncle Charlie*; Our Stairway, a Repository of Science and Pastime. The Other Side, Music, by *J. E. Gould*.

Daughaday & Becker, Publishers, 424 Walnut St. Philadelphia, Pennsylvania. \$1.25 a year American money.

The Farm.

AGRICULTURAL RHYMES.

When books and papers were scarce, people read to remember, and rhyme was a great assistance to the memory. Thus many of the sayings of Franklin's Poor Richard have been handed down from father to son, and are still household words among us. The following collection of agricultural rhymes was made by Dr. J. C. V. Smith, formerly of Boston, and published in the *New York Tribune*:—

If butter churned in morning air
Is kept in a cool place with care,
The taste is nice;

But that which shows the buttermilk
Don't sell to those who dress in silk—
For any price.

To be in debt
Brings out the sweat.

No half cooked meat
Is fit to eat.

A woman who sneezes
Ought not to make cheeses;
Put her hands in a muff,
Or ever take snuff.

When the wind is east and turkeys gobble,
It is no time a horse to hobble;
But let him range to catch the breeze—
Should he be troubled with the heaves.

An ox with broad horns and short glossy hair,
Is good for the team, the market, or fair.

Onwhite foot is bad, and two are too many,
That horse is best that does not have any.

A farmer without hogs,
But an army of dogs,
Will have more puppies than pork;
For the swill will be lost,
To the husbandman's cost,—
A dog's good for nothing to work.

The slackest farmer, strange to say,
Is known for being out of hay.

It does not pay in any way,
To milk a cow three times a day.

When chickens roost above the mow,
It spoils the hay for horse or cow.

The well-bred daughter for a farmer,
A prudent helpmeet and a charmer.

It is no place to set poles,
Where moles or mice have dug their holes.

Cobs make no food for kine to eat,
But they are good for smoking meat.

Pork and beans make muscles strong—
Something farmers seek;
It is a dish to make life long,
When cooked but once a week.

A slovenly dress, a shabby pate,
The fences down, a broken gate,
Pigs in the garden, weeds very high,
Children unwashed—no bacon to fry—
Lots of great dogs and yawling tom cats,
Windows repaired with a dozen old hats,
An empty barn—not a spear of hay,
Cows in the clover, horse run away,
Things sold by guess without being weighed,
Bills coming in and taxes unpaid—
Pipes and tobacco—whisky—neglect,
Drag in their train, as we might expect,
All sorts of trouble to fret away life—
But worst of the whole, an unhappy wife.

Many estates are lost in the getting,
Since men have forsaken heaving and splitting,
And women their sewing and knitting.

A mackerel sky—
The wind will be high,
Then bring in the grain,
Close by there is rain.

A smoky chimney may be cured,
A scolding woman not endured,
A farmer's wife, like cream or curd—
Is to be seen but seldom heard.

If you would thrive,
Be up by five;
For there is health
And certain wealth,
When at the plough,
Or milking cow.

A farmer at home should be found,
And often looking at his ground—
Inspecting fields, repairing fence—
For dollars come by saving pence.

Clear the soil from moles and slugs,
Prune the trees—keep off the bugs,
Then fruits and melons, rich and fair,
Will recompense for all your care.

Rutabaga, carrots and beets,
Improve the character of meats;
They make good beef, and quicker too,
Than any other feed will do.

At the farmer's cost
Is an early frost.
Exercise reason—
Harvest in season.

Of all the crops a farmer raises,
Or capital employs,
None brings such comforts and such praises,
As a crop of girls and boys.

TORONTO, 10th March, 1869.

To the Editor of the ONTARIO FARMER.

SIR,—When I wrote you last (February, 1868,) enclosing a very discouraging balance sheet for 1867, I promised, if spared to reap another harvest, to send you the results. That promise I now beg to redeem, and herewith forward you my balance sheet for 1868. I also send you my minute details of the gross amount of farm produce raised and acreage cultivated by me in the past year.

As you are aware, 1868 has on the whole been a very unfavorable year for farmers. At any rate, on the heavy undrained clay soils the extreme drought of last summer told most unfavorably, especially when the crops were sown late. In addition to the deficient yield, we had, with the exception of barley, low prices for all our produce, at least, those of us who did not sell until the year turned, realized poor prices. Those who sold in the fall, averaged fully 20 cents, (twenty cents) per bushel more, yet, notwithstanding these very serious drawbacks, my balance sheet shows \$260 68 to the credit, not a large profit certainly, but still under the circumstances as much as I expected.

I summer-fallowed 10 acres last year and have it now in fall wheat, of which 2½ acres are in English wheat, from seed that I imported last year. I hope it will escape being winter-killed, if so, taking all into account, won't I have good reason to thank God and take courage?

I duly received the first number of the "ONTARIO FARMER," and think the change in size and general arrangement, great improvements over those of the old quarto sheet. I beg to hand you one dollar, my subscription for the present year, and shall be glad to have the "ONTARIO FARMER" sent regularly to my address, which I enclose. I wish you every success with the new undertaking, and if I can procure any subscribers to it I will gladly do so.

I am, Sir, yours truly,
ULMUS.

1868. TOTAL Farm Produce raised and acreage cultivated by "ULMUS."

DAIRY.

Yield from 4 Cows, 14240 pints milk at 1 c.....	\$142 40
332 lbs. butter at 10 c.....	33 20
	<hr/>
	\$175 60

CEREALS.

10 Acres Fall Wheat yielded 166 bush at \$1 05.....	\$174 30
10 " Spring Wheat yielded 75 bush at 95 c.....	71 25
14 " Barley yielded 135 bush at \$1 20.....	162 00
2 " Peas yielded 20 bush at 70 c....	14 00
12 " Oats yielded 6 bush at 50 c....	3 00
	<hr/>
	\$424 55

ROOTS.

3½ " Potatoes yielded 175 bush at 35 c.....	61 25
½ " Carrots yielded 80 bush at 12½ c.....	10 00
½ " Mangolds yielded 50 bush at 12½ c.....	6 25
½ " Turnips yielded 60 bush at 12½ c.....	7 50
	<hr/>
	\$85 00

HAY.

5 " Timothy and Clover yielded 10 tons at \$8 00.....	\$80 00
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ORCHARD.

1½ " Apples, &c., say.....	\$4 85
10 " Summer Fallow.....	4 85
60 " 761 bushels.....	

FLOCK.

7 Fleeces yielded 30 lbs wool at 15 c.....	\$5 85
	<hr/>
	\$775 85

DR. Farm Balance Sheet for 1868.

1868.	\$ c.
To Taxes for 1867.....	\$30 59
" Blacksmith work.....	\$11 01
" Repairs waggons, imple- ments, &c.....	38 59
	<hr/>
	49 60

To Manure.....	\$21 95
" Seed for Farm.....	116 34
" " Garden.....	13 82
	<hr/>
" Feed purchased for stock....	70 91
" " value produce used by stock.....	197 61
	<hr/>
" Home consumption of our produce.....	114 60
" Hired labor during 1868.....	34 14
" Thrashing Machine 2 days... ..	14 00
" Sawing " " " "	5 00
	<hr/>
" Hardware.....	9 97
" Veterinary Surgeon and Medicines...	8 78
" Lumber.....	6 07
" 10 per cent. depreciation on Imple- ments, first cost \$276 90.....	27 69
" Sundry petty expenses.....	5 78
" Balance gained carried down.....	271 68
	<hr/>
	\$988 53

Cr. 1868. Contra. Cr. \$ c.

By gross value of Farm Produce raised in 1868 as per stock book.....	\$775 85
" Garden produce sold in 1868.....	19 68
" Cordwood " "	82 73
" Present value of stock.....	\$548 75
Used for home consumption... ..	75 00
	<hr/>
	623 75

DEDUCT.

First cost of stock.....	525 82
Gain on Stock.....	97 93
Sundry small amounts	
Discount.....	\$4 49
Eggs.....	2 55
Sundries.....	4 29
	<hr/>
	11 33
	<hr/>
	\$988 53

1869. Jan. 1st, By balance down..... \$261 63

PLATT'S SPRING WHEAT CONDEMNED.

MR. EDITOR,—In your last issue of the ONTARIO FARMER, Platt's spring wheat (said to be midge proof) is again recommended to the farmers of this Province. Allow me, through your journal, to caution the farmers of the western section against putting any faith whatever in the aforesaid wheat as midge proof. Seeing it highly recommended by the *Globe* in 1867, a number of farmers in this section resolved on giving it a trial. In consequence of this resolution, and confiding in the statements of the *Globe*, somewhere in the neighbourhood of a thousand bushels found its way to these parts,

but I doubt if there be any who having once tried it will use it a second time. Instead of being what it was said to be, it has proved a complete failure—some of it turning out so worthless that a great many let the straw rot on the ground, whilst others who reaped found it did not pay for thrashing. Like many others, thinking it would be a good change, I procured 12 bushels at a high figure and planted on eight acres, of good soil, which yielded twelve bushels to the acre, but had I sown as early as my neighbours, I believe it would have been as completely destroyed as theirs was. It may have been in Northumberland County all that the *Globe* represented, but if it was, they cannot have had such a thing as midge in those parts. Hoping that the above warning may not be neglected by those who intend using Platt's so-called midge proof this season.

I remain yours truly,

GEORGE ROBSON.

London Township, April 27, 1869.

FARM GLEANINGS.

A correspondent of the *Journal of the Farm* says he raised 1200 bushels of sugar beets to the acre, in soil not over six inches depth.

In Wisconsin, if a farmer plants trees at the roadsides, he is exempt from working on the highway. Any one injuring these trees is fined.

The *Rural New Yorker* tells a correspondent that it will pay him to pay ten dollars a ton for plaster and haul it fifteen miles to apply to newly seeded sandy loam soil.

The Dutch are talking of draining the Zuyder Zee, which it is computed that they could do with steam-power in twenty-one months. The land reclaimed would amount to 300,000 acres, representing in value a clear profit of £10,000,000.

A machine has been invented in California, which, it is said, has cut, threshed, cleaned, and stacked the wheat from twenty acres in ten hours, with only three men to work it. *Hearth and Home* from which we copy this item doesn't state the yield per acre.

A correspondent of the *New England Farmer* says:—"A farmer can undoubtedly live without an agricultural paper. So also can he live, and not grow a sheep, or a hog, or a horse if he keeps oxen, or without oxen if he keeps a horse. Yet good farmers do not believe they can afford to be without sheep, or hogs, or horses, or oxen. Nor do I believe they can afford to be without an agricultural newspaper any better than without either of the above mentioned useful animals."

Hon. Levi Bartlett writes at length to the *Country Gentleman* in favour of applying and evenly spreading manure in the fall on ground to be ploughed in the spring. This plan is also recommended by the editors of that paper.

One very common effect of the application of any fertilizer, which contains a large proportion of the phosphate of lime, is to induce the apparently spontaneous growth of white clover. Wood ashes appear to have this effect, because they contain a large amount of phosphate of lime.

During last year there were in the United Kingdom, 43,652,000 acres under cultivation, of which 11,659,000 were devoted to cereals, 4,865,000 to vegetables, 5,690,000 to clover and rotation grasses, and 22,164,000 to permanent pasturage. In every 100 acres in England, 42 are pasture, in Wales 56, in Scotland 23, and in Ireland 64.

A writer in the *Germantown Telegraph* concludes, after having had three years' experience with storing manure in the cellar of a barn and under the animals, and the hay and grain stored in the barn, and when special care was devoted to ventilation, that it is a very objectionable arrangement, and unhesitatingly condemns it as very injudicious.

In future fairs are to be held in the north country as follows: At Walkerton, on the third Wednesday of each month, and at Clifford, Teviotdale and Bosworth on the Thursday, Friday and Saturday following. The buyers will not attend any other fair on the Elora and Saugeen road. The first fair was held in Clifford, on the 29th of April, Teviotdale on the 30th, and at Bosworth on the 1st of May.

The Legislature of Michigan has, by a recent Act, fixed the price of the Michigan Agricultural College lands, mostly in the Grand Traverse region, at three dollars per acre, except for such as are principally valuable for timber. In the purchase of these lands, one-fourth of the purchase money is to be paid at the time of purchase—the balance to be paid at option of purchaser, he paying seven per cent. interest.

A correspondent of the *Country Gentleman* counted the number of clover seeds in a cubic inch, and estimated that if he had counted a whole bushel the number would have equalled 27,000,000. As there are 43,000 square inches in an acre, he found that one peck would furnish over one seed to each square inch of ground. His estimates showed that a trifle over one pint of seed to an acre would give ten plants to the square foot. In seeding his land he waits until all danger from freezing and thawing is passed, and has had good success with less than four quarts per acre, sown after May 1.

REAPER TRIAL IN HUNGARY.—There is to be an international trial of reaping machines, under the auspices of the Royal Hungarian Board of Agriculture and Trade, and projected by the Agricultural Society of the County of Wieselburg at Ungarisch, Althenburg, from the 5th to the 10th of July, 1869.

DAVID DICKSON says: "English farmers formerly used ten hundred pounds of ground bones per acre to grow a single crop. Experiments proved that two hundred pounds dissolved in acid produced the same effect, and secured a saving in outlay of seventy per cent."

LIQUID MANURE TANKS.—We take the following from the *Western Rural*: "As liquid manure is exceedingly beneficial to all vegetables, plenty of it should always be available, and without a liquid manure tank this cannot be obtained. For large gardens, a tank should be built exactly like a cistern; the bricks being closely cemented at the bottom, sides, and roof, to prevent the liquid from percolating through the soil, and also to keep surface water from entering the tank. The liquid should be conveyed to the tank by tile-drains from the stable, byre, kitchen, &c., and may be taken out by a pump. In small gardens a hogshead or large cask of any kind that will hold water may be sunk in the ground, and will answer on a small scale. In this, soot, guano, &c., may be converted into a valuable manure, by dissolving them in a suitable proportion of water. Manure is much more readily taken up by the roots of plants when in solution than when solid. In fact, solid manure has to be dissolved before it can enter the sponge-like mouths of the roots."

The Live Stock.

AYRSHIRE CATTLE.

The cows of this breed have for more than a century occupied a foremost rank among British cattle for dairy purposes, and the more recent improvements that have been effected in the breeding of cattle generally, have by no means lowered their position in this important respect. The origin of this valuable breed, like many other matters of a similar character, is involved in much obscurity; and any speculations with a view to throw light on so intricate and difficult a subject, would be more curious than useful. It is more than probable that, after the middle of the last century, the old Teeswater breed was more or less used in the south-west parts of Scotland to improve the native stock; and there is also reason to think that Alderney blood was subsequently introduced, which produced a decidedly beneficial influence as regards milking qualities. Even to the present day a striking similarity exists between the improved Ayrshire cow and the Alderney or Jersey, both in external conformation, and in milking qualities. As early as the latter part of the past century, and particularly during the greater portion of the

present, Ayrshire breeders have taken great pains by careful selections and the judicious introduction of fresh blood to develop the milk producing power, for which their favourite cattle are now so widely and deservedly distinguished. A recent writer facetiously remarks in reference to their early history:—"Very probably the blood of 'the cow with the crumpled horn'—that tossed the dog, that worried the cat, and all that—viz., the Holderness or the Alderney cow, had something to do with the process of 'natural selection.' Crumpled horns, however, are now looked upon as a grave defect in Ayrshires. Horns are merely dangerous ornaments, and, as breeders well know, can be moulded to any form to suit the taste of the times."

The qualities of the Ayrshire cow, as described by Mr. Aiton, who had much experience as a practical breeder and close observer, are as follows:—"Tameness and docility of temper greatly enhance the value of the milch cow. Some degree of hardiness, a sound constitution, and a moderate degree of life and spirits, are qualities to be wished for in a dairy cow, and what those of Ayrshire generally possess. The most valuable quality which a dairy cow can possess is that she yields much milk, and that of an oily, or butyraceous, or caseous nature, and that after she has yielded very large quantities of milk for several years, she shall be as valuable for beef as any other breed of cows known, her fat shall be more mixed through the whole flesh, and she shall fatten faster than any other."

With all due deference to so high an authority, we must express a dissent from the last condition as applicable to the Ayrshires, or, indeed, to any other breed that is highly distinguished for dairy qualities. Although the Ayrshire cow, when dry, can be fattened and made to produce a good quality of beef, the process generally is longer and more expensive than it is in the case of Durhams, Herefords, Devons, Galloways, or any other breed characterized for its meat producing power. The improvements, however, that have of late been effected in the Ayrshires, Alderneys, and other dairy stock, have unquestionably increased their feeding qualities after they become dry. Cows of any breed, while yielding a large supply of milk, are w^o town to be generally low in flesh, and

within certain bounds the fattening and milk giving properties must be regarded as antagonistic, and are rarely combined, in any marked degree, in the same animal.

A committee was appointed some dozen years ago by the Ayrshire Agricultural Association to fix the points in Ayrshire cattle which should be held in most importance, as indicating superior quality; and after careful inquiry and consideration, they issued the following report:—

“HEAD short, forehead wide, nose fine between the muzzle and eyes, muzzle moderately large, eyes full and lively; horns wide set on, inclining upwards, and curving slightly inwards.

“NECK long and straight from the head to the top of the shoulder, free from loose skin of the under side, fine at its junction with the head, and the muscles symmetrically enlarging towards the shoulders.

“SHOULDERS thin at the top, brisket light, the whole fore-quarters thin in front, and gradually increasing in depth and width backwards.

“BACK short and straight; spine well defined, especially at shoulders; the short ribs arched, the body deep at the flanks, and the milk veins well developed.

“PELVIS long, broad and straight; hook bones (ilium) wide apart, and not much overlaid with fat; thighs deep and broad; tail long and slender, and set on level with the back.

“MILK-VESSEL capacious, and extending well forward; hinder part broad and firmly attached to the body; the sole or under surface nearly level. The teats from two to two and a half inches in length, equal in thickness, and hanging perpendicularly; their distance apart at the sides should be equal to about one-third of the length of the vessel, and across to about one-half of the breadth.

“LEGS short, the bones fine and the joints firm.

“SKIN soft and elastic, and covered with soft, close, woolly hair.

“COLOURS preferred are brown, or brown and white; the colours being distinctly defined.”

The above “points” are, no doubt, the results of wide and careful observation and combined experience; and they will materially assist in forming a correct conception of the modern type of an improved Ayrshire. We agree, however, in the remark “that a cow which gives the largest return in butter or cheese, upon equal feeding, and for a whole season’s milking, is the best milch cow, whatever her ‘points’ may be.”

A capacious, well formed and well set udder, docility of temper, and a tendency for holding on in milk, are the principal qualifications that should guide a purchaser in quest of a good

milch cow. It is universally admitted that Ayrshire cows give a large quantity of milk of excellent quality, in proportion to their size, and the amount of food consumed. “Healthy cows, on good pasture, (observes Professor Low), will give from 800 to 900 gallons in the year;” and there are several instances on credible record of considerably larger yield than this. The *average*, however, even in the best grazing districts of the west of Scotland will come considerably below this standard; and the produce of milk, like other productions of the farm, is found materially to depend on a number of different conditions. The old adage, that “the cow gives her milk by the month,” is everywhere and at all times applicable; and next to liberal feeding, ranks clean milking, suitable shelter, and general attention to order and cleanliness.

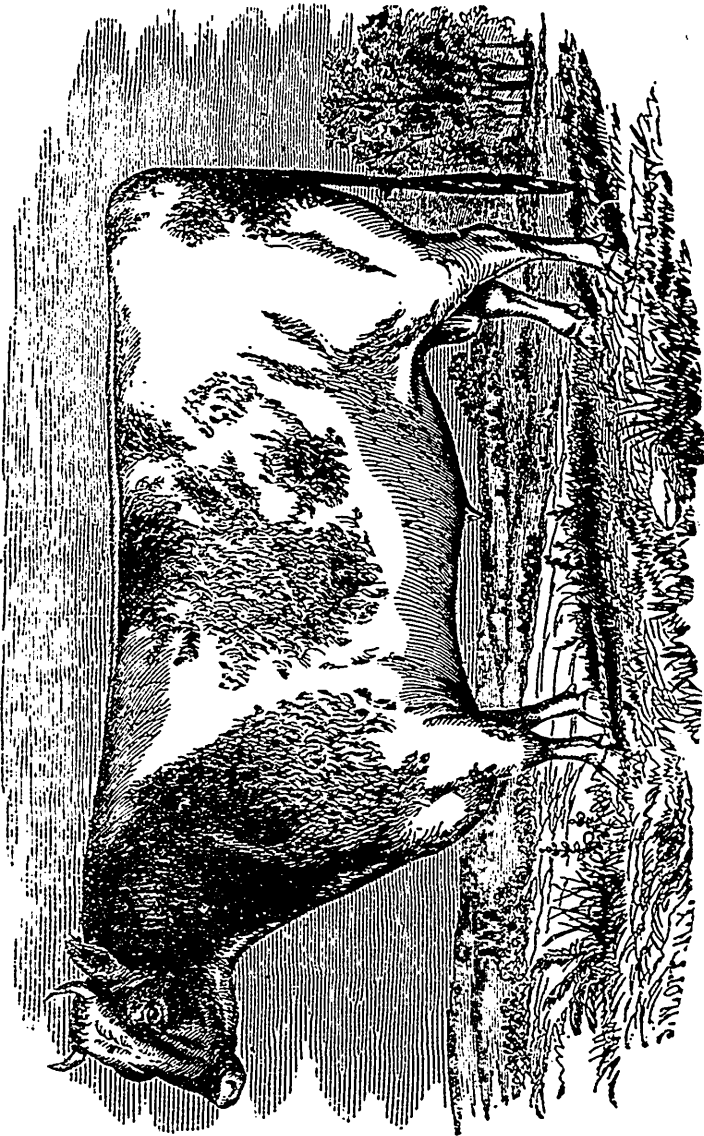
Ayrshire has long been celebrated for the making of Dunlop cheese, and the manufacture has of late years been both extended and improved. A number of the larger farmers, keeping from thirty to forty cows each, have effected several important improvements in dairy management, by which a quality of cheese equal to the well known “Cheddar,” of the south western counties of England, is now produced; and, in fact, not to be distinguished from it.

The illustrations which accompany this article, taken from the life by an eminent and well known artist, Mr. Page, of New York, will give the reader a correct idea of the most advanced type of this celebrated breed; handsomer specimens of which it would be difficult to find even in Ayrshire itself. We would recommend a careful comparison of the cuts with the preceding table of characteristic points. Although Ayrshire cattle are well known in some parts of Canada, where they have been bred and found adapted to our soils and climate for many years; yet it must be acknowledged that we have but comparatively few specimens of really superior merit. This arises from inattention to the importation, in the first instance, of really superior animals, as representing the latest improvements; and next, to want of care and judgment in breeding, and general management. The breed is everywhere naturally hardy, and would be found, in all probability,

well adapted to the eastern and northern sections of the Province, where dairying, particularly on calcareous and argillaceous soils, might be profitably and extensively conducted. As the production of cheese, in many parts of the Province, is annually increasing, and therefore

becoming of more importance, greater attention given to the breeding and management of Ayrshire cattle would, in all probability, be attended by increased profits in this department of rural economy. We commend this matter to the best consideration of our dairymen.

THE AYRESHIRE BULL, "BALDY."



The property of Messrs. Wolcott & Campbell, Utica, New York.

CRUELTY TO ANIMALS.

A Bill has been introduced into our Dominion Legislature by the Hon. Mr. Campbell, for the praiseworthy object of preventing cruelty to animals. The gist of it is contained in the first two sections, which are as follow :

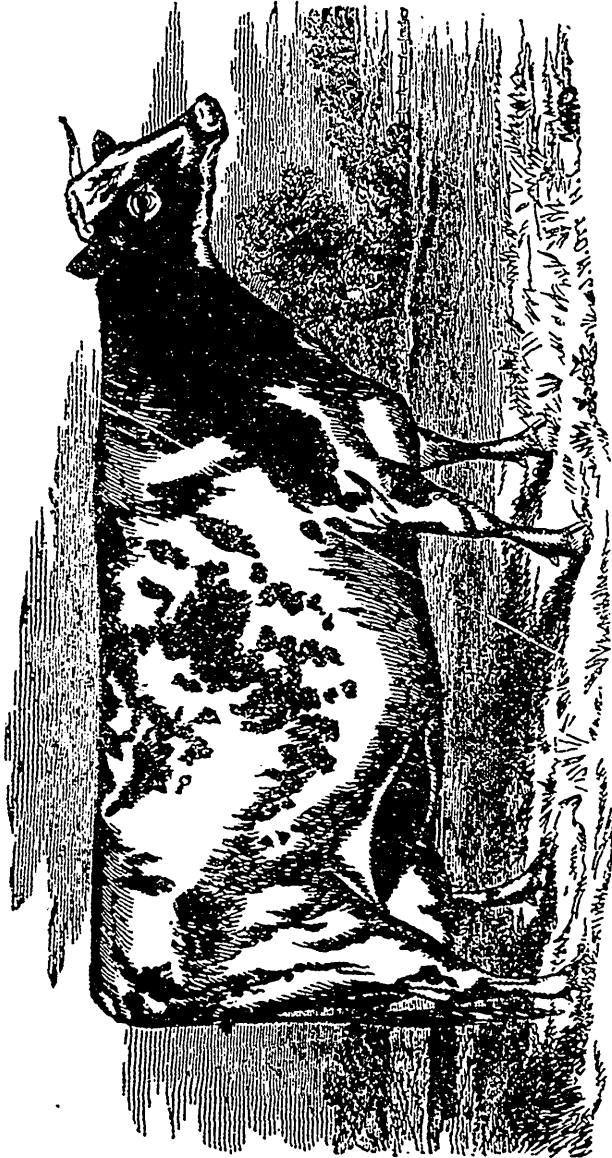
"1. Whosoever wantonly, cruelly, or unnecessarily beats, binds, illtreats, abuses or tortures any Horse, Mare, Gelding, Bull, Ox, Cow, Heifer, Steer, Calf, Mule, Ass, Sheep, Lamb, Pig, or other cattle, or any poultry, or any Dog, or Domestic Animal or Bird, or whosoever driving any cattle or other animal, is by negligence or ill-usage in the driving thereof,

the means whereby any mischief, damage or injury is done by any such cattle or other animal, shall, upon being convicted of any or either of the said offences before any one Justice of the Peace for the District, County or place in which the offence has been committed, for every such offence, forfeit and pay (over and above the amount of the damage or injury, if any, done

thereby, which damage or injury shall and may be ascertained and awarded by such Justice,) such a sum of money not exceeding \$10, nor less than \$1 with costs, as to such Justice seems meet.

2. The offender shall, in default of payment, be committed to the Common Gaol or other place of confinement, for the district, county, or place in which the offence was committed,

THE AYRSHIRE COW, "TIBBIE,"



The property of Messrs. Wolcott & Campbell, Utica, New York.

there to be imprisoned for any time not exceeding fourteen days."

The above, we hope, will become law, and be stringently enforced. Man's inhumanity to the brute creation is a crying evil, that cannot be too vigorously checked.

POINTS OF ALDERNEY COWS.—The butter-tub is more eloquent than even the "adder tongue" of an Alderney cow. I have all colors in my herd—grey, yellow, brown, and almost black; and all these colors spotted with white. Some have mealy noses, and as many have not; some

were imported, and others were bred here; some are very good, and others are only so-so. The best cows I have are yellow fawn; my experience with this and with other breeds leads me to favor that color, and I happen to know that it is also the choice of good judges in the Channel Islands. I have an imported cow which took the first prize at the Show of the Royal Agricultural Society, a few years since. She is a choice milker, a light yellow fawn in color, with a skin like an orange. It will be a pity if breeders lose their butter, and consequently their bread, by any unfounded theory about a black tongue or a white tail.—*Cor. Co. Gent.*

SPRING SHOW OF THE ONTARIO POULTRY ASSOCIATION.

The fourth exhibition of poultry, under the direction of the above Association, was held in the Agricultural Hall, in this city, on the 21st and 22nd ult. It was quite equal in most particulars to its predecessors, and in some respects was superior to any former show of the kind. The arrangements were admirably made, and the rules faithfully carried out. The judging was completed before spectators were admitted, and no birds ticketed with their owner's names until the prizes had been awarded. Colonel Hassard and Mr. Finch acted as judges, and we must accord them great credit for the manner in which they discharged their duties. Their decisions gave satisfaction to all persons who were competent to form an opinion upon them, and took the trouble to compare the rival birds with the "standard of excellence," according to which the honours of the Association are bestowed. There always will be disappointed exhibitors and superficial critics, who make the office of judge a thankless one by their contemptible censorship, and some of this class were pleased to air their folly and vent their spleen in some of our newspapers, which, having no person conversant with poultry matters on their editorial staff, are too easily gulled by interested complainants. It were too much to expect infallible correctness in any judges, but patient scrutiny, careful comparison of points, and strict impartiality, are the chief judicial virtues, and they were certainly displayed at the recent poultry exhibition.

The prize list narrates the story of the show pretty fully, and leaves little more to be said. We may observe, however, that the Buff

Cochins, Dark Brahmas, Grey Dorkings, Red Games and Hamburgs, were specially excellent classes; the Light Brahmas were scarcely so good as at the previous Shows of the Association; the Black Spanish were not so numerously represented as we have seen them, but the specimens were uncommonly fine; the Golden Polands were in advance of any previous show; the Sebright Bantams were below par, the well-marked birds being beyond the standard weight, and the small sized birds poorly-marked; the ducks fair; the geese few as to number and very ordinary samples; and the pigeon display very good, considering that Col. Hassard's fine collection was conspicuous only by its absence. Two pens of the new French fowls were shown, one containing Creve Coeurs, and the other Houdans.

We are glad to learn that the attendance of visitors was good, and that pecuniarily, as well as otherwise, the exhibition was a success. The Association deserves, and we trust will have, a long career of usefulness and prosperity.

PRIZE LIST.

Class 1—Cochin China (buff or cinnamon)—12 entries. 1st prize—\$4, George Sangster, Avenue Road, Yorkville; 2nd prize—\$2, R. Smith, Front Street, Toronto; highly commended, John Peters, London; commended, A. McLean Howard, Toronto; commended, J. H. Feeley, Hamilton.

Class 2—Cochin China (white or any other colour)—10 entries—1st prize—\$4, J. H. Feeley, Hamilton; 2nd do—\$2, J. H. Feeley, Hamilton.

Class 3—Brahma Pootra (dark)—10 entries—1st prize—\$4, Sheldon Stephens, Montreal; 2nd do—\$2, H. M. Thomas, Brooklin, Ontario; highly commended, A. McLean Howard, Toronto; commended, Sheldon Stephens, Montreal.

Class 4—Brahma Pootra (light)—16 entries—1st prize—\$4, Joseph Lamb, London; 2nd do—\$2, Joseph Lamb, London.

Class 5—Dorkings (Coloured)—8 entries—1st prize—\$4, Joseph Lamb, London; 2nd do—\$2, John Bogue, London; highly commended, John Peters, London; commended, Joseph Lamb, London.

Class 6—Dorkings (white)—6 entries—1st prize—\$4, Joseph Lamb, London; 2nd do—\$2, John Bogue, London; commended, John Plummer, junr., London.

Class 7—Spanish—8 entries—1st prize, \$4, T. Shivers Birchall, Toronto; 2nd do., \$2, T. Shivers Birchall, Toronto; highly commended, T. Shivers Birchall, Toronto; John Peters, London.

Class 8—Game, black breasted and other reds—22 entries—1st prize, \$4, James Beswick, Toronto; 2nd do., \$2, John Hendrie, Toronto; highly commended, James A. Ellis, Toronto; John Plummer, junr., London; John Peters, London; James Beswick, Toronto; Joseph Lamb, London; whole class commended.

Class 9—Game Duckwing, greys and blues—15 entries—1st prize, \$4, John Bogue, London; 2nd do., \$2, James A. Ellis, Toronto; highly commended, R. C. Smyth, Brantford.

Class 10—White, Pile, and other variety—9 entries—Given by A. McLean Howard, Esq.—1st prize, \$4, James A. Ellis, Toronto; 2nd do., \$2, A. McLean

Howard, Toronto; highly commended, A. McLean Howard, Toronto; W. A. Schoenan, Glenlyon.

Class 11—Hamburg, (Gold or Silver Pencilled)—11 entries—1st prize, \$4, Joseph Lamb, London; 2nd do., \$2, A. McLean Howard, Toronto; highly commended, Jonas S. Barnes, St. Thomas. Commended—George Brown, Toronto.

Class 12—Hamburg, (Gold or Silver Spangled)—9 entries—1st prize, \$4, J. H. Feeley, Hamilton; 2nd do, \$2, A. McLean Howard, Toronto.

Class 13—Polish (Gold or Silver)—14 entries—1st prize, \$4, James McGrath, Toronto; 2nd do, \$2, Jos. Lamb, London.

Class 14—Polish (any other variety)—4 entries—1st prize, \$4, George Brown, Toronto; 2nd do, \$3, Joseph Lamb, London. Highly commended (hen)—Joseph Lamb, London.

Class 15—Houdans (Creve Coeur, La Fleche and any other French Fowl)—2 entries—1st prize, \$4, Joseph Lamb, London; 2nd do, \$2, Joseph W. Leslie, Toronto.

Class 16—Bantams (Gold or Silver Lace)—8 entries—1st prize, \$4, James Millington, Toronto; 2nd do, \$2, James Millington, Toronto.

Class 17—Bantams (Game and any other variety)—8 entries—1st prize, (given by Wm. T. Goldsmith, Esq., St. Catharines), \$4, Captain R. Gore, R. A., Toronto; 2nd do, \$2, A. McLean, Howard, Toronto. Highly commended—John Peters, London; commended, Captain M. O. Miller, Toronto.

Class 18—Turkeys (any variety)—4 entries—1st prize, \$4, John Peters, London; 2nd do, \$2, Joseph Lamb, London.

Class 19—Ducks, Aylesbury—4 entries—1st prize, \$4, Joseph Lamb, London; 2nd do, John Peters, London. Highly commended—Joseph Lamb, London.

Class 20—Ducks, Rouen—4 entries—1st prize, \$4, John Peters, London; 2nd do, \$2, Joseph Lamb, London.

Class 21—Ducks, (any other variety)—9 entries—1st prize, \$4, Joseph Lamb, London; 2nd do, \$2, G. P. Sangster, Yorkville.

Class 22—Geese, (White)—3 entries—1st prize, \$4, W. John Bailey, London; 2nd do, \$2, Joseph Lamb, London.

Class 23—Geese, (Coloured)—4 entries—1st prize, \$4, Joseph Lamb, London; 2nd do, \$2, Joseph Lamb, London.

Class 24—Any other variety of fowl not mentioned in above classes—9 entries—1st prize, \$4, J. W. Hector, Rosedale, Toronto; 2nd do, \$3, M. W. V. Robertson, Toronto; 3rd do, \$2, James Millington, Toronto. Highly commended—A. McLean Howard, Toronto.

PIGEONS.

Birds of any age to be shown in pairs, except Carriers and Pouters.

Class 25—Carriers, (Cocks), any colour—2 entries—1st prize, \$2, John Johnson, London.

Class 26—Carriers, (Hens), any colour—2 entries—1st prize, \$2, John Johnson, London.

Class 27—Pouters, (Cocks), any colour—11 entries—1st prize, \$2, John Johnson, London. Very highly commended—John Hendrie, Toronto. Highly commended—John Johnson, London; John Hendrie, Toronto; James McGrath, Toronto.

Class 28—Pouters, (Hens), any colour—9 entries—1st prize, \$2, John Hendrie, Toronto. Highly commended—John Johnson, London; John Hendrie, Toronto; W. John Bailey, London. Commended—John Johnson, London.

Class 29—Tumblers, any variety—20 entries—1st prize, \$3, James McGrath, Toronto; 2nd do, \$2, Jas. McGrath, Toronto; 3rd do, \$1, John Johnson, London. Highly commended—W. John Bailey, London; John Johnson, London.

Class 30—Jacobins or Frills, any colour—6 entries—1st prize \$2, John Johnson, London; 2nd do, \$1, David Davis, Toronto.

Class 31—Fantails, any colour—5 entries—1st prize,

\$2, Wilkin B. Butler, Toronto; 2nd do. \$1, George P. Sangster, Avenue Road, Yorkville.

Class 32—Barbs, any colour—2 entries—1st prize, \$2, John Johnson, London.

Class 33—Turbits, any colour—4 entries—1st prize, \$2, John Johnson, London; 2nd do, \$1, David Davis, Toronto.

Class 34—Trumpeters, any colour—4 entries—1st prize, \$2, W. John Bailey, London; 2nd do, W. John Bailey, London.

Class 35—Any other variety of Pigeons not mentioned in the foregoing classes—4 entries—1st prize, \$2,—first prize withheld; 2nd do, \$1, Isaac Davis, Toronto.

DENTITION OF ANIMALS.

A correspondent of the *Mark Lane Express* says that the dentition of animals, as a test of their age, now excites considerable interest among English farmers, on account of the disqualification of Lord Radnor's pigs at the Birmingham cattle show. Mr. Owen Wallis, of Mentone, states that on one occasion, when drafting his yearling ewes, about the end of September or beginning of October, he found one with all its lamb teeth undisturbed, and showing no signs of putting up permanent ones; while many others of the same age had four broad teeth, nearly fully developed. As these sheep had all been bred alike, and fed alike and the one in question was perfectly healthy and about an average size, he wishes to have the great difference in their dentition accounted for by veterinary professors. That they are generally correct in their decisions he has no doubt, but he thinks that the case described tends to show that dentition is not always to be relied on as an unfailling test of age, and as such great discrepancies occasionally occur, minute ones may do so frequently, and injustice may be done to exhibitors by disqualifying animals on this account.

WORKING BULLS.

A writer in the *Mark-Lane Express*, advocates, from considerable experience, the practice of working bulls. After describing his mode of breaking, he says:—"Indeed, it is remarkable how soon a surly bull is taught temper and obedience. A man of good common sense, courage, and firmness will soon make the most surly rascal tractable and obedient, providing he is not actually vicious. A surly, ill-tempered, vicious bull is best fattened to be slaughtered; no danger caught to be incurred by teaching him his power for evil. I have said we always work the bull in the bridle, collar, and cart-saddle. I don't know a better course. The bridle is a common cart-horse bridle, made to fit the head of the bull, being, of course, larger at every point; the frontlet and blinkers rather out of proportion, larger; the head-strap made to

buckle. The collar and hames are peculiar in make and form, both being made to match each other. The collar is nearly 3 feet long, opening at the throat, where it is fastened by a strong strap, and buckle; it is made very full, and is well stuffed or padded on the top (which in the horse collar is the bottom, being, as it were, worn by the bull the wrong way up), so as to form a good firm cushion, by which the chief lift or pull of a bull is given. The sides of the collar are also more stuffed or padded than the ordinary horse collar, which, of course, makes the whole collar much broader, as well as longer."

LIVE STOCK GLEANINGS.

It has been estimated that the plague killed two hundred and two thousand cattle in England.

One thousand English sparrows have arrived in Philadelphia, and will be let loose in the public squares of that city.

A Veterinary Surgeon died at Springfield, Ill., April 4, from the effects of a bite from a glandered horse he had treated.

A company, with \$100,000 capital, is being organized in Missouri for the purpose of importing and breeding all kinds of stock.

The aqueous augmentation of the lacteal fluid is henceforward to be accounted a fineable offence in the State of Massachusetts.

An exchange says: "If a horse afflicted with the colic, be drenched with a preparation of chlorine and permanganic acid, a cure will be affected."

A ewe in Orange, N. H., gave birth to a black lamb a fortnight ago, which shortly died, and a day or two since brought forth white twins, which live and thrive.

It appears that the cattle plague is still widely diffused in Eastern Europe, very little diminution having taken place in the number of cases, in either Galicia or Hungary.

There is said to be considerable distress prevailing in the neighborhood of Mount Forest amongst the farmers for want of feed, hay being scarce and selling at \$25 per ton.

A novelty was introduced at the recent Barrow in Furness Dog and Poultry Show in the shape of prizes for different kinds of cats. The winner in one class weighed eleven pounds.

Small pox in sheep is still very far from being exterminated in many parts of the continent. It is admitted that the malady prevails in two or more of the provinces of Holland.

A correspondent of the *Ohio Farmer* thinks shorts fed to milch cows make more milk than clear meal, and that ground oats are better than either, but corn meal and shorts mixed make milk. He has tried potatoes with moderate success. Of all the roots he has tried, he thinks sugar beets are the best. After trying pumpkins fairly he could see no increase of milk from their use but believes it was a littler richer.

It is said that if a sheep or calf is covered with a rubber or leather spread, or thick blanket, and tobacco smoke made under the covering, every tick and nit will be destroyed in half an hour or less.

Mr. Joseph Harris writes to the *American Agriculturist* that one of the most convenient methods of reviving chilled lambs or pigs is to bury them up to their heads in a barrel of steamed chaff or straw.

The *Rural World* suggests, in view of the difficulty in getting pure annatto, that the best possible coloring matter for cheese, would be introduced into the dairy, say one Alderney to every twenty cows of other breeds.

A recent number of the *Farmer* (Scottish) says that Mr. Fenton Kinalty, near Forfar, has three ewes which last week brought forth the extraordinary number of fourteen lambs; two of them had four each, and one six. All the rest are living and thriving.

The late season has been hard on horses in the district of Nipissing. Mr. Thomas McDonald, who arrived in Pembroke last week from Deux Rivieres, lost his own horse on the trip, and about seventy miles from Pembroke he counted twenty-five dead horses on the road.

Mr. Shepherd of the North-western Poultry Association has purchased a fine lot of Dark Brahma fowls from Mr. Varley of the 13th Hussars. The greater part of these birds were recently imported from England. The price paid was \$120 for twelve fowls. We are sorry they have gone out of Canada.

The *Galt Reporter* notes an auction sale at Mr. William Sterling's, in Dumfries, on Tuesday of last week. Prices ruled very high. Three good common cows sold for \$180—the highest one going for \$67. The sheep also ruled high—ewes in lamb selling as high as \$14.50 per pair. Pigs—good brood sow, \$27; shoats, \$10 each. Horses sold well, one 4 year old, "Golden Hero," sold for \$136. Implements of all kinds brought very high figures.

Hay and oats were still kept up at a high price last week in Pembroke. *Observer* says the former was \$60 a ton, and the latter \$1.10 per bushel, and scarce even at that figure. Farmers coming into town find it cheaper to buy bread instead of oats, for their horses. A sufficient feed of bread may be had for about 17 cents while the same of oats would cost 40 cents. The difference is in favour of the staff of life in more ways than the cost, for those who feed say the horses prefer it.

SALE OF STOCK.—Mr. Joseph Kirby, of Milton, Ontario, has sold his eight months' old Shorthorn bull calf "Duke Malden," by "Duke Marlborough," 5587 A.H.B., out of "Diadem," sired by "Butterfly," 91 C.H.B., to the Anderson Agricultural Society. The same society has also purchased the two year old bull "Evelick," by "Romeo," bred by the late A. J. Ferguson Blair.

The Garden.

THE NEW GRAPES "AUTUCHON" AND "CORNUCOPIA."

We make no apology for presenting our readers with two more engravings of new grapes originated by Mr. Charles Arnold, of Paris. These grapes are destined, we believe, to a

career of great honour and usefulness. We Canadians are very modest about our own productions, and apt to think we must go to a distance to get anything super-excellent. But in the grape line we need not travel far. One of our own fellow-countrymen has produced at our own doors, grapes that take rank with the best varieties of their class that horticultural skill has brought into existence.

"AUTUCHON," illustrated on the opposite page, is a beautiful white grape, a seedling of the Clinton, crossed with Golden Chasselas. Leaves dark green, very deeply lobed, and with sharp pointed serratures, the unripe wood very dark purple, nearly black. The Chasselas flavour is very perceptible. It ripens with the Delaware, and is quite hardy.

During a hurried visit to Mr. Arnold's nursery, we noticed and were struck with the remarkable healthy and thrifty appearance of the "Autuchon" vines, and their entire freedom from mildew, with which some adjacent vines, whose branches were interwoven with them, were very badly affected. The flavour of this grape is exceedingly agreeable, and altogether it promises to take as high a place among white grapes as the Hybrid we illustrated in our last issue, among black ones.

Rev. W. H. Willcox says of it:—"It is a *very superior* fruit, as tender as Rebecca or Allenan, with very much more life and character than either."

The Committee of the Paris Horticultural Society says:—A beautiful white grape; bunch fully nine inches long; flavour much resembling the white Chasselas, but more sprightly, and which it much resembles in colour, having that green wax-like appearance; skin thin; no pulp; ripens with Delaware; a very handsome table grape.



CORNUCOPIA (Mr. Arnold's New Hybrid Grape, No. 2).

But the highest possible encomium

upon this grape is that which is bestowed upon it by the originator of a rival. Mr. Samuel Miller, of the Bluffton Wine Company, Mo., one of the best judges of grapes in America, and the originator of the new white grape "Martha," to whom was sent a box of the Autuchon fruit, ripened in the hill tops at Paris, says, in a letter to Mr. Arnold:—"I always considered Martha the best white native grape, but since seeing and tasting your Autuchon, I haul down my colours. I can endorse all that is said of it in your catalogue. If it will ripen like this in Canada, and if it improves by coming here like Rogers and other Northern grapes, then it seems to me we have all that can be desired. * * * It alone is a treasure."

"CORNUCOPIA" is a seedling of Clinton, crossed with Black St. Peter's, it has large, dark green foliage, smooth above and below, not generally lobed. It is a most healthy grape, and a great bearer. Rev. W. H. Willcox, of Reading, Mass., says of it, in *Gardener's Monthly*, for December, 1867:—"Perfectly healthy, strong grower, fruit spicy, tender, good, somewhat like Clinton, but very much better." It is growing on the same terrace as Hartford, Delaware, Rogers No. 3 and 15; and most fruit growers that have seen and tasted it, prefer it to any of those varieties.

A Committee of the Paris Horticultural Society says of it:—"This is, undoubtedly, one of the best in the whole collection of Mr. Arnold's hybrid grapes; a very promising grape. Bunch large, shouldered, very compact, berry above medium size, black, with a beautiful bloom; flavour excellent, and very sprightly and pleasant; skin thin, seeds small, very little pulp, if any; seems to burst in the mouth, all juice; ripens with Concord with very vigorous growth, and matures its wood very early. A good market grape."

The editor of the *American Horticultural Annual*, for 1868, says:—"And we should add a good keeper as some specimens now before us, in December, though somewhat shrivelled from exposure, are really good."

HOW TO RAISE CARROTS.

Select a rather light piece of ground; if not rich, make it moderately so with short stable

manure, plough and harrow thoroughly, then draw shallow furrows about eighteen inches to two feet apart. If it is not desirable to cultivate with horse-power, about fifteen inches is the proper distance. The manure should be spread lightly along in the furrows. A furrow should be thrown on the manure from each side, making a ridge, and the top levelled off with a rake. Then make a slight drill in the middle of the ridge with the back of a wooden rake or a stick.

After having selected the kind of seed most desirable, sow it in the drill, covering lightly with a rake. The proper way to plant the carrot is to plough down an old sod field, as by thus doing you are not liable to be pestered with weeds, as if they had been planted in a cultivated field. They are sown for an early crop as soon as the ground is fit to work, and for a latter crop they can be sown any time until the first or middle of June.

When the plants have made their appearance, they should be cultivated between the rows, and weeded by hand thoroughly, and when they have acquired a height of two or three inches they will require thinning, and at the same time should be weeded. They should be thinned to from three to five inches apart if designed to sell in the premature state, bunched like beets or radishes; but when large, full-grown roots are the objects aimed at, they should be left from six to nine inches apart. When fully matured—which is found by the leaves turning—and desired to be kept over winter, they are taken from the ground, all the small, fibrous roots and the top taken off with a sharp knife (some prefer the neck left on, which is necessary in those intended for seed), and packed tightly together—first a layer of dry sand, and a layer of carrots, with the ends all one way; then a layer of sand, and another layer of carrots, with the tops the opposite direction; thus continue, putting them in layers, covering with dry sand four or five inches, to exclude the light and air. If put out in the field, they are made in a heap, with a coat of straw over them, being covered with earth to the depth of a foot to exclude frost. In this manner they will keep in fine condition until March.

There are several different kinds of carrots, but the following three varieties are the most desirable for general cultivation: Long Orange Carrot, the variety most generally cultivated for market and stock purposes, very productive, rather coarse flesh. It sometimes on very rich soil attains the length of two feet. Early French Short-Horn, bright orange-red colour, much shorter than the Long Orange, being of a half-long shape, tender and delicate, and much esteemed for the table at any season of the year.

White Belgian, or large white, the most productive as well as the largest kind, very coarse, much used as a food for stock, but not regarded as so nutritious as the other varieties. The Long Surry, the Red and Yellow Altringham

and Orange Belgian are of no advantage to the "trucker" or farmer—the first named varieties being generally known and cultivated extensively. The Early French is the kind that is sold in bunches, being earlier and shorter than the other varieties, and these qualifications making it the most profitable to a limited extent.—*Hearth and Home.*

STRAWBERRY CULTURE.

BY A. S. FULLER.

Every one who has a garden should grow a few strawberries. It is a very simple matter to grow a moderate crop; but to produce it in abundance and of the best quality requires considerable skill and constant care.

The best and largest crop of strawberries that I ever raised was produced in the following manner: A bed, twenty-five feet wide and two hundred feet long, was prepared by spreading upon it twelve cart-loads of old, well-rotted cow-manure; the ground was then ploughed deep and harrowed down smooth and level. About the middle of April the plants were set out in rows, two feet apart, with a space of about eighteen inches between them.

No weeds were allowed to grow among the plants, and the surface of the soil was stirred at least once a week during the entire summer. Two or three runners were allowed to grow from each plant, and these were placed so that they would take root between the old plants in the rows.

In the autumn, when the ground began to freeze quite hard at night, the entire bed and plants were covered with coarse grass to the depth of two inches, after it had partially settled. To prevent the mulching being blown off, a few poles were laid around the outer edge of the bed. In the spring, after the severe cold weather was past, a man passed along each row, and with a stick parted the mulching just over the centre of each row of plants, so as to allow the air and light to reach the crowns and permit the leaves and fruit-stalks to grow up without hindrance. None of the mulching was removed from the beds: consequently the soil was kept moist and the fruit clean. This bed yielded a little over twelve bushels of fruit the second season after planting, which was the first crop; after the fruit was gathered, all the mulching was removed, and the soil between the rows was forked over, but no manure of any kind applied. The runners were not allowed to grow or take root except in places where there was a vacant space in the rows, and the next fall the mulching was applied the same as before. This treatment was continued for four years, and then the plants were ploughed under.

I have tried many different systems of culture for the strawberry, but none that has given so much satisfaction as this one, and, although it may be too expensive for extended culture, yet for the amateur who does not grow more than a half acre or acre, and desires to produce the largest amount possible on a given space, I can confidently recommend the above as being a system that will not only give an abundant crop, but the greatest amount of pleasure and profit. Many of the more delicate but large foreign varieties will succeed when treated in this manner, although they often fail when grown without mulching or winter protection.

"LET US HAVE PEAS."

The editor of the *Monroe Advertiser* confesses to an inordinate fondness for those delicious globules known as cornfield peas, and indulges in the following rhapsody in reference to them:

"Bacon and greens will answer for those unlucky mortals who have not a cultivated taste; hog and hominy is prime in its place, and 'devilled' ham is delightful; but how coarse—how tasteless—how insipid. O! unprejudiced gormandizers—what are these articles of diet when compared to a dish of savoury peas!

"We envy the fortunate individual who sits down to his first plate of peas! How exquisite must be his enjoyment! Reader, you are of this class, make haste to open unto yourself a new world of Epicurean delights. First, eat them boiled—cooked to a nicety; add a modicum of salt and red pepper, and corn-bread as an accompaniment; then, with a spoon, fall to, not with coyness, but with right hearty good-will, and we promise you beforehand a meal such as potentates might envy.

"Gentle husbandman, raise peas; allow no gregarious beast to tear the trailing tendrils or destroy the fruitful pod. *Pod*, did we say? Nay! the worthier name *Ollapodrida*; for are not these the combination of all the excellencies and virtues of vegetables? Are they not at once bread and meat and dessert—at once substantial and delicious?

"We imagine it was not altogether modesty which impelled that historical young woman, whose fame was heralded over our grandmothers' tea-cups, to carve each of her peas in two. How ecstatic must have been her enjoyment at dinner!—an enjoyment fully realizing Milton's idea of 'sweetness long drawn out,' and utterly beyond the appreciation of this materialistic age.

"Perhaps the legend which Ulysses has written upon his shield may mean something, after all. We call upon our agriculturists to respond to it. If there remains a spark of patriotism in this rebellious South—a remnant of 'æsthetic culture' among those Confederates who vexed their stomachs with mule-meat and hard-tack—we know they will appreciate our interpretation of President Grant's motto—"Let us have peas."

FLORAL MAGNIFICENCE.

The New York *Home Journal* gives this description of the floral magnificence at the marriage of a daughter of William M. Tweed, in that city, recently: "The decorations certainly surpassed any attempt of the kind at a similar entertainment ever given in this city. The staircase, ceilings, chandeliers, mirrors, doors, ornaments, and furniture, were garlanded and festooned most profusely with choice flowers and magnificent floral bells, and on every hand exotics, wreaths and overgreens were artistically displayed. Indeed, the interior of the house presented rather the appearance of an enchanted palace, so beautiful did it look, and the sense of smell was so delightful that the illusion was kept up with little imagination. In the front parlor, almost obscuring the two front windows, the designers had constructed an arbor, in which the bride and groom received the congratulations of their friends. It was composed of 2,000 camellias and daphnes, callas and violets in unlimited numbers. The arbor was crowned with a shield of scarlet carnations, topped with a monogram, M. T., formed of tuberoses. In front of this, and separating the parlors, hung a marriage bell, from a massive arch of flowers, with festoons falling on each other. At the rear of the parlors, two very large floral harps were stationed, screening the musicians. The decoration of the staircase was a very effective piece of work. Being spiral in construction, a person standing on the lowest floor could see to the very roof of the house, when, to use an expression of one of the guests, you were reminded of a tropical mountain in full bloom. Of course, all these flowers were not raised in or near New York. The greenhouses of Boston, Philadelphia and Baltimore were ransacked for the occasion. One may get an idea of the exhibition when we say that it brought into use 10,000 camellias, 100,000 primroses, 25,000 white azalias, and 2,000 heads of daphnes. The collection, altogether, was probably the finest gathering of exotics brought together in one house. Forty men and boys were occupied some days in preparing the frame-work, and they were all engaged during the whole of Tuesday night in arranging the flowers."

GRAFTING THE GRAPE.

E. A. Riehl stated before a recent meeting of the Alton Horticultural Society, that he had grafted grapes in the open ground with uniform success—as much so as in grafting an orchard. H. G. McPike had been equally successful by using the same method, with the exception of doing it in autumn. D. L. Hall had entirely failed in autumn grafting, but had succeeded well in spring. The following is Mr. Riehl's mode:—
My method is to saw or cut off the vine from

four to six inches under ground. The stock I split with a thin bladed knife, being careful to cut rather than split. I make the split as near the centre of the stock as possible, and am very careful to have the bark of stock and scion fit nice at one point at least. The stock will usually hold the scion firm enough without trying; if not, I tie with a string but never wax the grape. The earth is then firmly pressed about the scion up to the top bud; a little saw dust put on the top to protect the bud and keep the earth from baking, and the thing is done. I prefer early spring; it is cleft grafting under ground; my scions are from four to six inches long.

HARDY FRUITS.

In answer to a correspondent, who enquires for the hardiest varieties of fruit, the Horticultural Editor of the *Country Gentleman* furnishes the following list:

Apples.—Sops of Wine, Red Astrachan, Autumn Strawberry, Fall Orange, Duchess of Oldenburgh, Fameuse, St. Lawrence, Golden Russet, of (Western N. Y.) Northern Spy, Wagener.

Pears.—Buffum, Urbaniste, Anjou, Fulton, Lawrence, Winter Nelis.

Crabs.—Transcendent, Hyslop.

Grapes.—Hartford Prolific, Concord, Delaware, Adirondac (covered in winter).

Cherries.—Early Richmond, Mayduke, Large Morello.

Plums.—Schenectady Catherine, Lombard, McLaughlin.

Raspberries.—Philadelphia, Black Cap.

Strawberries.—Wilson's

Blackberries.—Kittatinny.

Currants.—Red Dutch, White Dutch, White Grape, Versailles.

HOW TO HAVE PLUMS EVERY YEAR.

A correspondent of the *Country Gentleman* says:—Our plum trees are loaded with good fruit every year that we observe the following directions: Put about a bushel of green manure around the root of each tree, one bushel chip manure on the stable manure, and then a peck of wood ashes on the manure as soon as the snow is off. Last year there were *no* plums on trees in this neighbourhood except ours. I do not know the names of the sorts we have, but they are some of them pale yellow with a little pink on the sunny side, some red with a yellow shade on under side of the fruit, and some dark yellow, with red irregular marks on them. The trees stand on a hillside facing east, and have red currant bushes between them. We see many plums drop off, stung by the curculio, but plenty remain on the trees and ripen. I think it a pity that those who have trees should not have plums.

AN ITEM IN REGARD TO PRUNING.

To the Editor of the ONTARIO FARMER :

SIR,—It is supposed that Editors know everything in relation to the subjects treated in their journals, but they blunder sometimes, like ordinary mortals. Your paragraph on page 85, entitled "Error as to pruning" shows plainly that the *American Agriculturalist* gave wrong advice about pruning. Indeed nothing could be more absurd than the course recommend by that journal. A. A. HILL is correct in his theory, but makes one important omission. The stump of every limb taken off with a saw (however sharp and fine) should have the ring of wood and bark neatly and carefully pared with a sharp knife to promote a speedy growth.

You may make a note of this, a hint will do no harm.

Respectfully yours,

WILLIAM SISSON.

Port Hope, March 23, 1869.

 TOADS, ETC., IN GARDENS.

In a recent lecture on Insect Enemies, before the Vineland Agricultural and Horticultural Society, N. J., by Mr. Treat, he thus alludes to the usefulness of toads:—

Carry all the toads you may find to your gardens. They will devour immense numbers of bugs. A toad will swallow the largest specimen of the tomato worm, though sometimes he will have a hard time of it. Snakes, hens, wasps, spiders, are all devourers of your enemies. A common duck will go up and down rows of tomato and potato vines, and pick off the large worms usually found on such vines, as fast as it can see them; and they will see a half dozen when a man would not see one. Young turkeys will do the same service, though they are not so easily controlled and guided. All fallen fruit is to be picked up twice a day—at any rate once—boiled, and then given to your cattle to be devoured. By doing this it will pay ten times over, and the result of it will be that next year you will not have insects.

 THE BEST MULCH FOR GRAPE VINES.

A correspondent of the *Country Gentleman* says that he finds leached ashes and cut grass the best mulch for the grape vine. The ashes gather moisture and repel heat. Grape vines that were mulched at the commencement of the drought last summer, stood the heat well. When the grass rots, the roots derive nutriment from it. The grass is put on first, and then covered with ashes. This mulch is both protective and enriching, and the nutriment is of a kind that is wanted—vegetable and carbonaceous.

GARDEN GLEANINGS.

Pear-blight still puzzles the horticulturists. The best remedy known is to plant two trees for every one that dies.

There are 148,000 shade trees in Paris—principally the elm, Plane, Horse-chesnut, Maple, Linden, Acacia, and the Ailanthus.

An extensive fruit grower, who within a few years has set out thirty thousand trees, says that as to peaches, pears, and plums, he would prefer them at one year old, and the apple at two years. Much depends on after cultivation.

On a market garden farm of a little less than 90 acres, in Monmouth County, N. J., there was realized last year a profit of nearly \$80 per acre, \$6789.67 in all. There was paid for labour \$1640.50, and for manure \$2294.00.

The American Basket Company, New Britain, Conn., have prepared a useful and interesting circular containing directions on marketing small fruits, which the *Country Gentleman* commends to the attention of those engaged in that business.

The *Gardener's Magazine* says that several fine plants of the prickly pear covered with living Cochineal Insects, have arrived at the Royal Botanic Gardens, Regents Park, London, from Maderia. Both plants and insects are in a more healthy state than specimens usually imported.

The *Gardener's Monthly* says that immense numbers of insects might be destroyed in a garden or orchard by using bottles of sweet liquid systematically. This is quite common in England, where they do not let every fruit enemy run riot, and then sit down and cry about having no crops.

At a recent meeting of the Pennsylvania Fruit Growers' Society, Mr. Thomas Meehan Editor of the *Gardener's Monthly* said that "in order to have good success in growing grapes, a soil could scarcely be too warm, too dry, too shallow or too rich." His opinion was endorsed by nearly all the fruit growers present.

In the *London Journal of Horticulture*, Mr. Rivers states that an orchard-house in the garden of Mr. E. W. Harlock, of Ely, Cambridgeshire, produced this season nearly 40 bushels of peaches, nectarines, and apricots, besides a large quantity of pears and plums. The house is 100 feet long, and 40 feet wide.

An Iowa correspondent of the *Prairie Farmer*, who has made a trial of the Barberry for a hedge, says it is easy to keep in good shape, and is always symmetrical and neat. To form a barrier against cattle, he stretches two or three wires in it. Another correspondent finds the seed of ready growth, even without washing off the pulp, and that eight or ten years are required to form a good hedge. He has one next the public road, and to prevent cows from hooking it, which they are apt to do after the leaves drop, he also sets a few posts and draws wires, remarking that cattle do not like the ring of iron.

The *St. Catharines Times* says that the peach trees all around St. Catharines, and throughout the Niagara district generally, are entirely uninjured after the Winter. The fruit buds are fresh and green, and if the blossoms are not cut off by frosts in May, there will be a heavy crop of peaches. Cherries, pears, apples and grapes, and indeed all kinds of fruit, promise a most abundant yield the coming season.

Frederick G. Pratt in an essay on the strawberry read before the Concord Farmers' Club, says that the different varieties of strawberries require different soils. Thus the Hovey, originating in a heavy clay soil, has always done best on the clayey lands about Boston. The Agriculturist, starting from light sandy soil gives its best results from such light land, and so will all varieties each having some favorite soil.

The Northern Spy apple blossoms later in the season than most varieties, and on this account escapes frosts which often destroy the fruit of earlier sorts. The fruit is borne on spurs interspersed through the tree, and therefore is less liable to be blown off by the winds than those apples which are set on the extremities of the branches. The quality of the fruit is very good, and it retains its flavor until late in the Spring.

A correspondent of the *Augusta (Ga.) Chronicle* says that the best way to renovate old apple trees is to commence with a good pruning, then scrape off all loose bark and moss; give the tree a longitudinal incision through the bark; wash the whole with a strong solution of soap and water with lime added, and give a good working out with a digging fork around the roots as far as they extend. Spread lime and ashes broadcast around the tree.

A correspondent of the *Southern Cultivator* says that in planting a vineyard, the selection of a site is of the greatest importance. A slight declivity is desirable, with open or under drains to carry off the superabundant water, and to prevent washing. Shelters are also of vast importance, intermediate hill-belts of timber, or double rows of evergreens or deciduous trees, to break the force of dry and cold chilling winds, to prevent too rapid evaporation, and to keep vines as far as possible from all disturbing influences.

A correspondent of the *Southern Cultivator* says that Downing, Westbrook, and others recommend to train fruit trees low—say from 18 inches to 3 feet high. He has followed this advice for nine years, and his orchard is nearly a failure. His trees were planted in 1860 in holes two feet deep, six feet in diameter, filled partly woodsmould, swamp rakings and lot manure. These trees grew and flourished for three years, then the borer attacked them, and no effort of his could save them. One-third of them died before they reached their seventh year. The peaches rotted and fell to the ground before ripening. His apple trees failed in a similar way. He intends to train about five feet high in future.

A NEW GRAPE DISEASE IN FRANCE.—M. Bazzille presented a memoir to the French Academy on August 3rd, detailing a new disease which he says is likely to prove more disastrous than the famous vine mildew. This new enemy is not a fungus, but a minute aphide, which he calls a *Rhizobius*, and which forms yellow parasite patches on the roots of the grape vine.

HOW TO GROW LARGE POTATOES.—The *North British Agriculturist* says:—"To improve the size of potatoes, whether planted with small or large, whole, or even cut potatoes, when the plants are only a few inches high, let the shoots be reduced by pulling them up to one or two, or at most three of the strongest. The tubers will consequently be fewer and very much larger, also in measure nearly all fit for market and the table.

THE EUROPEAN LARCH.—A correspondent of the *Prairie Farmer* writes as follows, about this tree and its propagation:

"The European Larch is much more valuable than our native species, and will thrive well on a dry soil and sandy barrens, and is adapted to nearly all soils and climates, being a perfectly hardy tree. Its foliage is a light green, resembling the evergreen.

"It should be planted very young, or quite small, to do well, and very early in the spring, on account of the buds starting early.

"If the young trees are ordered from a distance, it should be in time to have them set as they can be taken up.

"Its seeds are small, and should be sown in winter or early in the spring, in boxes or beds, of light sandy soil, over a quarter of an inch; keep carefully moist and shaded, not exposing the young plants to the hot sun.

"In a couple of years transplant."

PARLOR PLANTS.—The *Journal of Horticulture* says that some plants will do well in rooms that will not flourish in the hot-house, and that such as will thrive in parlors are highly prized. He says that house plants suffer greatly from dust which chokes its lungs—the leaves serving the function of breathing. This can be remedied by frequently sponging or showering the plants. As to watering, the *Journal* says:

In every case where water is applied to a plant, either at root or branches, it should be of the temperature of the room where the plant grows. Rain water is preferable to any other; and where hard water only can be obtained, it should be allowed to stand some hours before being applied to the plants. In sponging plants that are very dusty, lukewarm water may be used to advantage, but after the operation, a good showering of cold water should be given. The soil used should be much the same for all window plants, and may be generally described as good garden loam.

Our Country.

AGRICULTURAL AND HORTICULTURAL SOCIETIES, 1869, AND THEIR SECRETARIES.

(N.B.—Electoral Division Societies are printed in small capitals, the rest are Township Societies).

ADDINGTON.—J. B. Aylsworth, Newburgh.
 Camden.—J. B. Aylsworth, Newburgh.
 Loughborough.—W. Boyce, Loughborough.
 Portland.—J. Cook, Harrowsmith.
 ALGOMA.—C. J. Brampton, Sault St. Marie.
 BRANT, N.—D. R. Dickson, Paris.
 Dumfries, S.—H. Hart, Paris.
 Onondago.—S. Bradshard, Onondago.
 Brantford, E.—H. Imlach, Cainsville.
 Paris Horticultural.—H. Hart, Paris.
 BRANT, S.—D. McKay, Brantford.
 Burford.—J. Bingham, Burford.
 Brantford Horticultural.—B. F. Fitch, Brantford.
 BRUCE, N.—J. Saunders, Paisley.
 Arran.—J. N. Gardner, Invermay.
 Bruce.—P. Sinclair, Underwood.
 Elderslie.—M. Macnamara, Paisley.
 Saugeen.—A. Roy, Normanton.
 BRUCE, S.—A. St. L. Mackintosh, Walkerton.
 Kincardine.—T. Bradley, Bervie.
 Greenock.—J. Cunningham, Greenock.
 BRANT, N.—A. St. L. Mackintosh, Walkerton.
 Huron.—T. Wilson, Kincardine.
 Carross.—J. Fraser, Teeswater.
 Carrick.—D. McLean, Midmay.
 BROCKVILLE.—D. B. Jones, Brockville.
 BOTHWELL.—I. Unsworth, Florence.
 Sombra.—P. Cattenach, Sombra.
 Dawn.—I. Unsworth, Florence.
 Zone.—A. Duncan, Bothwell.
 Camden.—D. Wallace, Dawn Mills.
 Orford.—E. McCollum, Duart.
 Howard.—J. Duck, Morpeth.
 CARLETON.—A. S. Woodburn, Ottawa.
 Fitzroy.—A. Riddle, Hubbell's Falls.
 Gower, N.—W. Elliott, North Gower Corners.
 Huntley.—W. Revington, Carp.
 March.—G. W. Monck, South March.
 CARDWELL.—J. Allan, Mono Mills.
 Albion.—C. R. Bolton, Albion.
 Caledon.—D. Kirkwood, Charleston.
 Adjala.—J. C. Hart, Keemansville.
 Mono.—J. Anderson, Orangeville.
 CORNWALL.—J. S. McDougall, Cornwall.
 DURHAM, E.—J. Foot, Port Hope.
 Cavan.—J. W. Sootheran, Millbrook.
 Manvers.—A. Riley, Bethany.
 Hope.—R. Dickson, Port Hope.
 Port Hope Horticultural Society.—J. S. Johnston, Port Hope.
 DURHAM, W.—R. Windatt, Bowmanville.
 Clarke.—J. L. Tucker, Orono.
 Darlington.—R. Windatt, Bowmanville.
 Cartwright.—J. Parr, Williamsbury.
 Bowmanville Horticultural.—W. R. Clinnie, Bowmanville.

DUNDAS.—A. G. Macdonell, Morrisburgh.
 Mountain.—R. Shaver, South Mountain.
 Matilda.—A. Harkness, Dixon's Corners.
 Winchester.—J. Fitz Gibbons, Winchester.
 Williamsburgh.—W. Whittaker, Williamsburgh.
 ELGIN, E.—H. Ellis, St. Thomas.
 Bayham.—L. J. Gundry, Vienna.
 Malahide.—R. Ward, Aylmer.
 Yarmouth.—L. S. Leonard, St. Thomas.
 Dorchester, S.—M. Fullarton, Lyons.
 ELGIN, W.—J. A. Philpotts, Iona.
 Southhold & Dwywick.—J. A. Philpotts, Iona.
 Aldborough.—R. Coates, Aldborough.
 ESSEX.—H. Botsford, Amherstburg.
 Malden and Anderson.—H. Botsford, Amherstburg.
 Gosfield & Mersea.—C. Palmer, Leamington.
 Colchester.—W. Grubb, Colchester.
 Maidstone.—T. F. Kane, Maidstone.
 Rochester.—J. Moran, Rochester.
 Tilbury, W.—J. F. Dodd, Trudell.
 FRONTENAC.—I. Simpson, Kingston.
 Wolfe Island.—H. O. Hitchcock, Wolfe Island.
 Pittsburg.—R. J. Milton, Kingston.
 Storrington.—T. Conklin, Inverary.
 GLENGARRY.—T. McDonell, Williamstown.
 Charlottenburgh.—T. McDonell, Williamstown.
 Kenyon and Lochiel.—A. McDonell, Lochiel.
 GRENVILLE, S.—T. J. Tracey, Prescott.
 Edwardsburgh.—J. Robertson, Spencerville.
 GREY, N.—W. Gordon, Owen Sound.
 Owen Sound Horticultural.—J. G. Francis, Owen Sound.
 Collingwood and Euphrassie.—W. Hengill, Epping.
 Holland and Sullivan.—J. Duffy, Chatsworth.
 St. Vincent.—J. Albery, Meaford.
 Sydenham.—C. Gordon, Owen Sound.
 Derby.—W. Beaton, Kilsyth.
 GREY, S.—D. Fletcher, Durham.
 Bentick and Glenelg.—A. Cochrane, Durham.
 Artemesia.—W. Clayton, Flesherton.
 Osprey.—J. A. Sutherland, Maxwell.
 Egremont.—D. Allan, Durham.
 Proton.—A. McPherson, Cedarville.
 Melancthon.—H. Jarvis, Horning's Mills.
 HALDIMAND.—J. Young, York.
 Oneida and Seneca.—F. A. Nelles, York.
 Cayuga & Rainham.—J. Law, Rainham Centre.
 Walpole.—R. W. Hewitt, Cheapside.
 HALTON.—W. C. Beaty, Omagh.
 Esquesing.—J. Murray, Esquesing.
 Nassaggiweya.—S. L. Lister, Nassaggiweya.
 Nelson.—R. Miller, Lowville.
 Trafalgar.—H. M. Switzer, Palermo.
 HAMILTON.—A. E. Walker, Hamilton.
 HASTINGS, N.—J. J. Ryan, W. Huntingdon.
 Rawdon.—G. E. Bull, Stirling.
 Huntingdon.—J. J. Ryan, W. Huntingdon.
 Madoc.—Chas. Gream, Madoc.
 HASTINGS, E.—P. R. Palmer, Thurlow.
 Thurlow.—P. R. Palmer, Thurlow.
 Tyendingaga.—C. Anderson, Melrose.
 HASTINGS, W.—S. D. Farley, Belleville.
 HURON, N.—S. Malcomson, Clinton.

Ashfield.—J. Roberts, Dunganon.
 Wawanosh.—J. H. Taylor, Westfield.
 Turberry.—W. Anderson, Wingham.
 Howick.—W. Laurie, Wroxeter.
 Morris.—W. Wilson, Blythe.
 Grey.—D. Stewart, Ainsleyville.
 Hullet.—E. Holmes, Clinton.
 Huron, S.—H. Love, Kippen.
 Tuckersmith.—W. McConnel, Egmonville.
 Stanley.—J. Walker, Varna.
 Hay.—R. Brown, Zurich.
 Osborne.—J. Elder, jun., Rodgerville.
 Stephen.—J. Greenaway, Exeter.
 KENT.—J. Hart, Chatham.
 Chatham.—J. Lillie, jun., Wallaceburgh.
 Tilbury, E.—J. Fletcher, Tilbury East.
 Raleigh.—A. White, Charing Cross.
 Harrich.—W. R. Fellows, Rond Eau.
 KINGSTON.—A. J. Briggs, Kingston.
 LAMBTON.—E. Watson, Sarnia.
 Bosanquet.—Crawford, Widder Station.
 Warwick.—G. Smith, Warwick.
 Plymton.—J. Simpson, Aberarder.
 Moore.—H. J. Miller, Corunn.
 Enniskillen.—J. Hendra, Ossian.
 Brooke.—E. Bowlby, Napia.
 LANARK, N.—J. Baird, Almonte.
 Dalhousie.—J. Donald, McDonald's Corners.
 Lanark.—J. Young, Middleville.
 Ramsay.—G. Forge, Almonte.
 Pakenham.—A. Fowler, M.D., Pakenham.
 LANARK, S.—A. McNee, Perth.
 Montague.—E. Chalmers, Smith's Falls.
 Elmslie, Burgess, & Drummond.—A. McNee,
 Perth.
 Beckwith.—A. McArthur, Carleton Place.
 LEEDS AND GRENVILLE.—H. H. Brennan,
 Frankville.
 Kitley & Elmsley.—S. Chalmers, Smith's Falls.
 Walford.—J. Coolridge, Easton's Corners.
 Gower, S.—J. S. Adams, Heckston.
 LEEDS, S.—W. Brough, Gananoque.
 Yonge and Escott.—A. Parish, Farmerville.
 Leeds & Lansdown.—G. F. Dean, Lansdown.
 Crosby.—R. A. Preston, Newboro'.
 Bastard.—J. Delong, Forfar.
 LENNOX.—C. James, Napanee.
 Richmond.—O. D. Sweet, Selby.
 Adolphustown.—A. Nelson, Sandhurst.
 Frederickburgh.—W. N. Dollar, Napanee.
 Ernestown.—R. Aylesworth, Odessa.
 Amherst Island.—Col. Hitchens, Emerald.
 LINCOLN.—J. H. Bessey, St. Catharines.
 Clinton.—J. C. Kerr, Beamsville.
 Grantham.—W. H. Emmett, St. Catharines.
 Grimsby.—J. T. Middleton, Grimsby.
 Louth.—P. Prest, Jordan.
 St. Catharines Horticultural.—F. W. McDon-
 ald, St. Catharines.
 LONDON (City).—Wm. McBride, London.
 MIDDLESEX, N.—W. K. Atkinson, Ailsa Craig.
 McGillivray.—R. Shoultz, McGillivray.
 Biddulph.—A. Grant, Granton.
 Williams, E.—T. Shipley, Falkirk.
 Williams, W.—J. Dawson, Sylvan.
 Adelaide.—A. Preston, Granton.
 Lobo.—J. Irvine, Lobo.

MIDDLESEX, E.—H. Anderson, London.
 Nissouri.—W. Lee, Thorndale.
 Dorchester N.—J. B. Lane, Dorchester Station.
 Westminster.—T. Fleming, London.
 London.—R. Orr, Arva.
 MIDDLESEX, W.—J. Keefer, London.
 Delaware.—Dr. Francis, Delaware.
 Carradoc.—W. E. Lawyer, Mount Bridges.
 Medcalfe.—R. Richards, Strathroy.
 Mosa.—A. Thompson, Wardsville.
 Ekfrid.—A. Douglass, Longwood.
 Monck.—D. C. Holmes, Wellandport.
 Cranborough.—S. Kennedy, St. Ann's.
 Caiston.—F. Pearson, Abington.
 Gainsborough.—Samuel Kennedy.
 Pelham.—E. Wilson, Ridgville.
 Wainfleet.—J. Priestman, Marshville.
 NIAGARA (TOWN).—A. Saroos, Niagara.
 NORTHUMBERLAND, E.—R. P. Hurlburt,
 Warkworth.
 Cranache.—W. Easton, Colborne.
 Brighton.—J. C. Clarke, Brighton.
 Murray.—H. Fieldhouse, Rosa.
 Seymour.—J. Clarke, Burnbiae.
 Percy.—R. P. Hurlburt, Warkworth.
 NORTHUMBERLAND, W.—C. Bourn, Cobourg.
 Hamilton.—R. Cullis, Cold Springs.
 Haldimand.—J. Gillard, Grafton.
 Cobourg Horticultural.—D. Brodie, Cobourg.
 NORFOLK, N.—D. W. Freeman, Simcoe.
 Middleton.—O. P. Mabee, Dereham.
 Townsend.—H. Slaght, Waterford.
 Windham.—D. W. Freeman, Simcoe.
 NORFOLK, S.—A. W. Smith, Simcoe.
 Charlottetown.—A. W. Smith, Simcoe.
 Walsingham.—J. D. Morgan, Pleasant Hill.
 Woodhouse.—T. England, Port Dover.
 ONTARIO, N.—J. Christie, Manchester.
 Brock.—T. H. Glendinning, Brock.
 Thorah.—N. F. Patterson, Beaverton.
 Reach and Scugog.—J. Christie, Manchester.
 Uxbridge.—A. Todd, Goodwood.
 Scott.—A. Turner, Ashworth.
 Mara and Rama.—A. Thorne, Atherley.
 ONTARIO, S.—G. Robson, Whitby.
 Whitby.—J. Willis, Whitby.
 Pickering.—J. Brown, Pickering.
 OXFORD, N.—R. W. Samtall, Woodstock.
 Nissouri, E.—J. Robinson, Kintore.
 Zorra, W.—J. Mann, Embro.
 Zorra, E.—R. Campbell, jun., Strathallan.
 Blandford.—J. Oliver, Ratho.
 Blemheim.—G. F. Williamson, Princeton.
 OXFORD, S.—R. T. Williams, Culloden.
 Oxford, N. & W.—W. H. Gane, Ingersoll.
 Oxford, E.—T. Arnell, Vandicar.
 Norwich, N.—W. S. Scarff, Norwich.
 Norwich, S.—A. B. Moore, Otterville.
 Dereham.—R. T. Williams, Culloden.
 OTTAWA (City).—A. S. Woodburn, Ottawa.
 PEEL.—A. B. Scott, Brampton.
 Chingacousey.—J. C. Snell, Edmonton.
 Toronto.—T. D. King, Cooksville.
 Toronto Gore.—J. Linton, Humber.
 PERTH, N.—S. Campbell, Stratford.
 Wallace and Elma.—I. C. Tilt, Listowell.
 Morrington.—S. Whaley, West's Corners.

PERTH, S.—W. N. Ford, St. Mary's.
 Downie.—T. Balantine, Sebringville.
 Fullarton.—W. Davidson, Carlingford.
 Hibbert.—J. McCurdy, Staffa.
 PETERBOROUGH, E.—W. E. Roxburgh, Norwood
 Asphedel & Belmont.—W. E. Roxburgh, do.
 Douro & Dummer.—W. Snellgroove, Warsaw.
 Dysart.—J. Irwin, Haliburton.
 Otonabee.—M. Campbell, Keene.
 PETERBOROUGH, W.—J. Carnegie, jun., Peter-
 borough.
 Monaghan, S.—J. Riddell, Centreville.
 Monaghan, N., and Smith.—M. S. Dean,
 Bridgnorth.
 Peterborough (Town) Horticultural.—S. Bal-
 mer, Peterborough.
 PRESCOTT.—J. Shields, Vankleekhill.
 Caledonia.—H. J. Bradley, Fenaghvale.
 Hawksbury.—S. Cap, Vankleekhill.
 Plantagenet, N.—H. Smith, N. Plantagenet.
 Plantagenet, S.—A. McLean, Riceville.
 PRINCE EDWARD.—J. P. Roblin, Picton.
 Ameliasburgh.—I. Diamond, Mountain View.
 Hillier.—S. P. Niles, Hillier.
 Hallowell.—L. B. Stinson, Bloomfield.
 Sophiasburgh.—N. J. Baulter, Demorestville.
 Picton Horticultural.—T. Bog, Picton.
 RENFREW, N.—N. W. Jackson, Westmeath.
 Ross.—R. Allen, Cobden.
 RENFREW, S.—R. McLaren, Renfrew.
 McNab.—G. E. Neilson, Arnprior.
 Admaston.—A. Brown, Admaston.
 Grattan.—S. G. Lynn, Eganville.
 RUSSELL.—J. Morgan, Osgoode.
 Gloucester.—J. Johnston, jun., Ottawa.
 Osgoode.—J. Cowan, Vernon.
 Clarence.—G. Edwards, Clarence.
 Cumberland.—C. Hunter, Cumberland.
 Russell.—E. F. Lonches, Russell.
 SMYCOE, N.—J. Thomas, Barrie.
 Nottawasaga.—H. M. Frame, Duntroon.
 Sunnidale.—H. Hislop, Stayner.
 Vespra.—G. Sneath, Midhurst.
 Flos and Medonte.—W. Harvey, Elmvale.
 Oro.—J. Thomas, Barrie.
 Orillia.—G. Tudhope, Rugby.
 King and Tay.—C. Ross, Penetanguishene.
 SMYCOE, S.—W. M. Stevenson, Bradford.
 Gwillimsbury, W.—E. Jeff, jun., Bond Head.
 Tecumseth.—S. Walker, Penville.
 Innisfil.—T. Maconchy, Lefroy.
 Essa.—W. Armson, Thornton.
 Tossorontio.—R. Corbett, Rosemont.
 Mulmer.—J. A. Love, West Essa.
 STORMONT.—Geo. Shaver, Wales.
 Osnabrock.—Geo. Shaver, Wales.
 Toronto (City)—W. Edwards, Toronto.
 VICTORIA, N.—J. S. Russell, Kirkfield.
 Laxton.—S. Corbet, Oakhill.
 Eldon.—G. W. Miller, Woodville.
 Fenelon.—J. D. Naylor, Fenelon Falls.
 Muskoka.—J. B. Browning, Bracebridge.
 VICTORIA, S.—W. J. Thirkell, Lindsay.
 Ops.—W. Boynton, Lindsay.
 Maripossa.—J. Barnart, Oakwood.
 Emily.—J. R. McNiellie, Omeme.
 Verulum.—W. B. Read, Bobcaygeon.

Lindsay, Horticulture.—C. Neads, Lindsay.
 WATERLOO, N.—M. Springer, Waterloo.
 Woolwich.—J. Hall, Winterbourne.
 Wellesley.—G. Oakley, Crosshill.
 WATERLOO, S.—A. Macgregor, Galt.
 WELAND.—A. Read, Crowland.
 Bertie.—A. Dickout, Point Albino.
 Crowland.—W. Buckner, Crowland.
 Humblestone.—J. Thomson, Humblestone.
 Stamford.—J. Law, Drummondville.
 Thorald.—R. Spencer, Alanburgh.
 Willoughby.—J. McCredie, Chippawa.
 WELLINGTON, N.—J. Isles, Arthur.
 Amaranth.—T. Caven, Whittington.
 Arthur.—J. Isles, Arthur.
 Minto.—A. Meiklejohn, Harrison.
 WELLINGTON, C.—J. Beattie, Fergus.
 Garafraxa.—A. Nichol, Garafraxa.
 Erin.—J. W. Burt, Coningsby.
 Eramosa.—W. Tolton, Eramosa.
 Nichol.—G. H. Todd, Fergus.
 Pilkington.—R. Cromar, Salem.
 WELLINGTON, S.—G. Murton, Guelph.
 Guelph.—J. Laidlaw, Guelph.
 Puslinch.—J. Grant, Aberfoyle.
 WENTWORTH, N.—J. Weir, jr., W. Flamboro'.
 Beverley.—J. Armstrong, Rockton.
 Flamboro', E.—T. Stock, Waterdown.
 Flamboro', W.—C. Durrant, W. Flamboro'.
 WENTWORTH, S.—W. A. Cooley, Ancaster.
 Saltfleet & Binbrook.—J. Davis, Mount Albion.
 Glanford and Barton.—C. Grey, Hannon.
 Ancaster.—F. Snider, Ancaster.
 YORK, N.—E. Jackson, Newmarket.
 Georgina and N. Gwillimsbury.—Angus Ego,
 Georgina.
 Whitchurch.—M. Jones, Bloomington.
 King.—S. Machell, King.
 E. Gwillimsbury.—A. J. Hughes, Sharon.
 YORK, E.—J. Robinson, Markham.
 Markham.—J. Spright, Markham.
 Scarborough.—J. Crawford, Malvern.
 YORK, E.—J. McCarter, Toronto.
 YORK, W.—B. Bull, Davenport.
 Etobicoke.—W. A. Ide, Islington.
 Vaughan.—T. Graham, Woodbridge.
 YORK, W.—J. McCarter, Toronto.
 Fruit Growers' Association.—D. W. Beadle,
 St. Catharines.

FLAX CULTURE.

To the Editor of the ONTARIO FARMER.

SIR,—It is gratifying to be able to state that this crop is now gaining much more favour with the farmers than it has done for several years past, from the fact that it has now become one of the best paying crops that a farmer can raise. It will be seen by a statement lately published in the papers, that in the neighbourhood of the Scutch Mills at St. Mary's, Township of Blanchard, one farmer realized at the rate of \$50

per acre from his crop of flax last year. The prices for both fibre and seed are now quite as high as they were any time during the American war, and the demand for fibre, more especially, immensely increased in the American market. The supply this season has not been a tythe of the quantity require^d. The spring is now about opening, and with wheat at the present low figures, flax may safely take its place to a very great extent. Seed for sowing can only be procured, I believe, at Montreal, and at \$2 a bushel f. o. b. the cars there; this shows the necessity for those cultivating flax to keep or raise their own seed. Some farmers near Woodstock, a year or two ago, raised flax for the purpose of growing seed alone, and had an average of some 20 bushels to the acre. This can be done again, and still the fibre will work into coarser qualities of flax, that will bring a fair price. Of course, in Ireland and other flax growing countries, it is well known where the finest qualities of fibre are produced, the seed is never allowed to ripen. This can be done in Canada, and to great advantage, as the quality is very much improved, and will bring a much higher price. This will be easily understood when it is considered that the whole of the oily substance is allowed to remain in the stalk, instead of running up into the seed.

I am authorized to state, by one of our well-known agriculturists in the County of Halton, John White, Esq., M.P., that there is no grain equal to flax to seed down with. The clover plant is soon protected by the flax plant, and sheltered from drought, while in pulling the flax the clover is moulded and recovers fresh nutriment which stimulates its growth. Having often called the attention of the farmers to this new branch of Canadian industry, it affords me greater pleasure than ever, when I am able to state for a fact that it is now a paying crop, and one well worthy their attention, even if they would only sow a few acres each.

In conclusion, it will be admitted on all sides the immense increased employment it affords is a general benefit not only to the working classes, but to the country in general.

Wishing your paper and this subject every success,

I am, sir,

Your obedient servant,

JOHN A. DONALDSON.

Government Immigration Office,
53 York St., Toronto, 10th April, 1869.

Arts and Manufactures.

TORONTO MECHANICS' INSTITUTE.

This institution, now in the 39th year of its existence, held its annual meeting on the 10th inst. From the report of the Directors we learn that its membership shows a total of 1,050, being a decrease of 67 on the number reported for the previous year.

The Library now contains 7,572 volumes of books, about one-third of which are fiction, and the remainder science and art, and general literature. Its issues to members and subscribers for the year amounted to 21,766 vols. The Reading-room is supplied with the leading political, commercial and literary papers and magazines of Britain, the United States, and Canada, numbering in all 126 separate publications.

The evening classes, which, if not of the first importance in the Society's operations, are only second to the Library, are shown to have again been very successful. The subjects taught embrace book-keeping and penmanship, arithmetic and mathematics, architectural, mechanical and ornamental drawing, French, English grammar and composition, Chemistry and Natural Philosophy; also a mutual instruction class. The whole number of pupils was 253. The usual examination had been made, and prizes awarded in each department. The fine arts exhibition, which was kept open for eleven days, is reported as having been a success in every thing but its finances. Twelve public entertainments, such as readings, music, &c., were given during the year, and resulted satisfactorily. The project of a new Music Hall to seat 2,000 persons, proposed to be added to the present large building, is still under consideration—the "ways and means" being the point of difficulty. The whole cost is estimated at not less than \$30,000.

The Treasurer's statement shows total receipts for the year, \$7,321.75; expenditure, \$7,196.80; balance in hand, \$124.95. The assets are real estate, \$55,800; library, furniture, &c., \$8,255.28; total, \$64,050.28. Liabilities by mortgages, \$23,400; Sundries, \$2,296.86; total liabilities, \$25,696.86; balance, \$38,353.42.

The Directors conclude their report by expressing regret at the large amount of liabilities re-

maining unpaid, which, in some measure, is no doubt owing to the depressed state of business for the past few months, and partly from the want of interest in the institution by a large number of those from whom support might be expected. The Institute has, undoubtedly, by its library, its reading rooms, its lectures and its evening classes, been the means of imparting instruction and healthful recreation to many of the young men of this city, who have thereby become more steady and better skilled workmen, and who might but for the attractions of the Institute have fallen into evil courses too prevalent in the times in which we live. For this not only have the young men been *directly* benefitted, but indirectly it has been of advantage to their friends, their employers, and the citizens generally; and has thus constituted a claim to the generous support of the Toronto public.

ON BARK AND TANNING.

A recent number of the *Scientific American* contains some "practical suggestions on tanning leather," by C. GILPIN. We have not space to give the whole article, but select a few of the most useful points touched upon, for the benefit of our Canadian tanners.

As a result of visits to some hundreds of tanneries, the writer was convinced of the necessity of more care being used in peeling, handling, and storing the bark, which, from carelessness and exposure, and other causes, sustain a loss of from one-fifth to one-third of its tanning properties. He says:—

"It is a self-evident proposition that all perishable articles when exposed to the influence of the elements which are known to destroy their virtues, must as an inevitable consequence part with a portion of their virtues just in proportion to the extent they are brought in contact with them. Hence we find that bark exposed for a length of time to rain and snow, the latter frequently melting and passing through the piles left standing in the woods, must yield up no inconsiderable portion of its tanning properties. Those who have not turned their attention to the real difference between a liquor made from first quality and that made from damaged bark, cannot realize the comparative value in actual tanning material between the two. From a test made some years since, it was discovered that bark which had been exposed for two days to continued warm rains during the month of July, had yielded up one-fifth of its tannic acid, and

consequently required that much more bark, to produce the *real* strength of liquor; or, in other words, one cord and one-fifth to accomplish what one cord of good, sound bark will do. A test was also made with hemlock bark, which proved that a cord of that bark which had been standing in the woods exposed to the weather for two months had parted with nearly one-fourth of its tanning principle, which had been leached out, entirely extinguished through negligence, by not being properly protected from those elements that are known to destroy the tanning properties of all barks used for tanning purposes. Nor is this the only loss incurred through want of some thorough system by which the bark can be immediately secured, beyond question, from being injured by exposure after it is peeled; the labor of handling, hauling, grinding, and pitching is the same, with twenty-five to fifty per cent. less material to tan with, also the injurious influence of the dark moldy color, a general accompaniment of damaged bark upon the stock. In view of these facts we desire to direct the attention of the manufacturer to these existing, and we believe, increasing evils, that they may make a movement to correct them, and thereby in some measure avoid the heavy losses now sustained in this department.

"It appears from information derived from high English authority that the trade both there and on the Continent understand fully the importance of securing the bark crop from possibility of damage, by housing it the same day it is taken off the tree."

The writer estimates that the loss by exposure referred to, in the United States, at certainly not less than \$7,000,000 annually, in addition to the loss of hauling and handling a large portion of useless material. As a remedy for this state of things, he suggests that:—

"During the peeling season, there should be a sufficient number of hands detailed for the exclusive purpose of looking after the bark after it is peeled; never allowing it to remain exposed longer than one day to the weather if fair, and always have it turned *ross* side out, and so laid that it will be sure to shed all the rain let it come from whatever quarter it may; during the bark peeling season storms rarely come from a due northern or westerly course, hence you can always let the *flesh* side face either of those directions without exposing it to damage from that cause. It is well known that most men who peel bark for sale, pay but little attention to having it well secured, and in many instances I have known them to turn it *flesh* side out, so that it would curl up nicely and yield more to the vender and less to the tanner when measured. In all regions where competition exists, the man who peels bark for sale being fully aware he can sell his bark readily at a large price and for cash, he is not apt to be very particular, either in regard to quality, or the manner

in which his bark is packed in the waggon or other conveyance in which it may be brought to market, knowing as a general thing the demand is fully equal to the supply, and consequently meets with ready cash sale; and my experience has satisfied me that it is a matter of economy for the tanner to have the control of the pooling, hauling, and management of the bark in the woods, as thereby he can have it secured in the best possible manner against damage, even if it should cost him an extra quarter or fifty cents per cord, which would be a small amount in consideration of the advantages gained."

After advising that selections be made from bark in all conditions, from the very best down to the most inferior quality, and that liquor be made therefrom and analyzed so as to indicate the exact amount of tanning each contains, and thus furnish a guide to the tanner as to their respective commercial values, he concludes by calling the "attention of the trade to the fact that while in Europe and England they tan out one pound of best quality of sole leather with four pounds of bark, it requires twelve to thirteen pounds to do the same work in this country; this alone should satisfy every inquiring mind engaged in the production of leather, that we receive a great amount of material in the shape of bark that does not pay for hauling and the other labor put upon it; or, in other words, is perfectly worthless and obnoxious in connection with their tanning operations, and earnestly invite the attention of the whole fraternity to the careful consideration of this important subject, whereby they may be induced to adopt some regulations by which these losses will be prevented, and millions of dollars saved annually that now perish, yielding no profit to anybody."

WHY DON'T BOYS LEARN TRADES ?

In answer to this question, a Philadelphia paper thus hits off the modern TRADES' UNIONS, and their unjust and arbitrary rules :—

"It is popular to say that young men should learn trades. Those people are especially fond of saying so to whom manual labor or any extra exertion in the matter of gaining a living is distasteful. But such self-satisfied advisers apart, young men do, in fact, get the wisest counsel when advised to so employ their youth as to always have at their command in after times some sure means of independence. But how is this desirable end to be obtained? The entire apprentice system seems destined, under the present tyranny of the Trades' Unions, to be driven out of existence. It is a rule with many of these societies to refuse to allow their members to work in any shop, office, or factory, with non-members or with apprentices. When the society is powerful and virtually controls the journeymen of its particular craft (as it does

in many instances in this city and elsewhere), the door is conclusively shut in the faces of would-be workers in that direction. The employer is quite at the mercy of the society. If he takes apprentices, his journeymen, bound by the articles of their association, leave him. He cannot replace them, for the good hands are all in the same boat. With the best of feelings, therefore, for the boys who want one day to be journeymen themselves, what can he do for them? Nothing.

"This may be all very well for the mechanics and artisans of the present; but for the future! While now labor is controlled and good prices obtained, no skilled workmen are growing up. We may be well off, but what is the next generation to do? We must take care of ourselves, say the Unions. You must, indeed, gentlemen, but it is none the less a fact that such is a short-sighted and illiberal policy that says 'there are workmen enough in the world, every individual added to the force diminishes our profit, and, therefore, we combine to keep the body where it is.' A reasonable protection to mechanics and others, who have worked to achieve a special excellence in their business, is to be approved; but such exclusiveness, when it comes to the point of shutting young men and boys out of opportunities of learning the best trades, cannot be too strongly condemned. Such a policy will be, in the end, destructive to industry."

CORN STARCH—HOW IT IS MANUFACTURED.

Methods for the preparation of this popular article of food vary somewhat with manufacturers, but the following method, patented 1854, by Mr. Polson, of Paisley, Scotland, is perhaps as good as any. By this method the grain is first steeped either in alkaline water, or in water only, until the grain is thoroughly soaked. It is then reduced to pulp by the use of rollers, or other suitable machinery. It is next passed over a sieve through which the finer portions are forced by revolving brushes, while the coarser parts remaining are returned to be re-ground. The husk or bran is thus separated, and may be used as food for cattle. A stream of water runs constantly down upon the sieve and carries the portion passing through, over an inclined plane or "run." The plane is divided into sections by wooden cleats which are laid across it. These cleats or dams intercept the starch which settles to the bottom, from which it is removed at proper intervals. The greater part of the glutinous and fibrous portions are carried along by the current, and are thus separated from the starch. The starch can be still further purified from the glutinous and fibrous matters by treating it with an alkaline solution which dissolves the gluten, running it through finer sieves, and rewashing it on the inclined plane.—*Scientific American.*

PROFESSOR FARADAY AMONG THE MINERS.

As illustrative of the rocklessness of men engaged in specially dangerous occupations, the *American Artizan* gives the following anecdote of the late Professor Faraday, which it says will be new to ninety-nine folks out of a hundred; the hundredth being he who reads the printed proceedings of the Royal Society (England), in one of the latest numbers of which there is a rich collection of biographical facts, chiefly derived from the correspondence and note-books of Faraday. The famous philosopher and equally renowned geologist (Sir Charles Lyell) were sent as Government commissioners to watch the inquest upon those who died by the explosion in the Haswell colliery, in 1844. Faraday cross-examined the witnesses very pertinently. Among other questions, he asked "how the rate of flow of air-current was measured." An inspector of the colliery, in reply, took a pinch of gunpowder from a box, as if it were snuff, and let it fall through the flame of a candle. His companion, with a watch, noted the time that the smoke took to travel a certain distance. The method satisfied Faraday, but he remarked on the careless handling of the powder, and asked where it was kept.

"In a bag tightly tied," was the reply. "Yes but where do you keep the bag?" asked Faraday. "You are sitting on it," quoth the callous collier. The well-intentioned miners, not over-stocked with soft chairs, had given the commissioner their best substitute for a cushion. Faraday's agility in vacating his seat may be imagined, so may his expostulations, which (we are mildly informed) were animated and expressive. For the rest of the inquest he sat without a cushion on his chair.

THE DRY EARTH SYSTEM APPLIED TO WOUNDS.

The *Mechanics' Magazine* says:—"The dry earth system has achieved a new triumph in America. Dry sifted earth has been used as an application to offensive wounds, with magical effect. The *Medical Times* states that there was a case of compound fracture so offensive that it defied the effects of ventilation and the usual disinfectants. The wound was covered with dry earth, the odour was absorbed, and with the abatement of this came a speedy improvement in the character of the wound. Encouraged by this result, Dr. Hewson has applied it with marked success in the treatment of every other disease attended with profuse and offensive suppuration—ulcers of the legs, contused and sloughing wounds, gunshot wounds, severe burns, cancer. In all these it is said to have succeeded beyond expectation, and it is now proposed to apply it to small-pox, the most offensive and virulent of all maladies.

MUSTARD PLASTERS.—By using syrup or molasses for mustard plasters, they will keep soft and flexible, and not dry up and become hard, as when mixed with water. A thin paper or fine cloth should come between the plaster and the skin. The strength of the plaster is varied by the addition of more or less flour.

LIQUID BLACKING.—1. Take ivory black 5 oz., molasses 4 oz., sweet oil $\frac{3}{4}$ oz., triturate until the oil is perfectly killed, then stir in gradually vinegar and beer bottom of each $\frac{1}{4}$ of a pint, and continue the agitation until the mixture is complete. 2. Take ivory black 1 lb., molasses $\frac{3}{4}$ lb., sperm oil 2 oz., beer and vinegar each one pint; proceed as before.

CARBONIC ACID FROM WELLS.—A correspondent of the *Scientific American* says an umbrella let down and hauled up rapidly, a number of times in succession, in a few minutes removed the gas from a well so foul as to instantly extinguish a candle previous to the use of the umbrella.

CLEANING TINWARE.—Acids should never be employed to clean tinware, because they attack the metal and remove it from the iron of which it forms a thin coat. We refer to articles made of tin plate, which consists of iron covered with tin. Rub the article first with rotten-stone and sweet oil, the same as recommended for brass, then finish with whitening and a piece of soft leather. Articles made wholly of tin should be cleaned in the same manner. In a dry atmosphere, planished tin ware will remain bright for a long period, but they soon become tarnished in moist air.

WHEAT-BEAN.—If chemistry had rendered no higher service to common life than to analyze our daily bread, it would have placed society under a perpetual obligation. It is now generally understood that in bolting ground wheat, the sieve takes out the best and most nutritious parts of the grain. A process has of late been patented in England for grinding the bran into fine powder and mixing it with the flour. A German chemist has discovered a method by which bran may be bleached entirely white, so as to be cooked with the flour, thus adding to its nutritive power without affecting its color.

NEW MODE OF SMOKING HAMS.—The *New England Farmer* recommends, first, smoking the interior of the barrel designed to hold the hams, by burning a bushel of smouldering corn-cobs in it, and afterward putting the hams in the barrel together with the brine. It says that, treated in this way, the hams will have the taste of smoked meat, and will keep just the same as if smoked in the usual way. Perhaps they will, but the smoky taste must come from the creosote with which the barrel is impregnated by the smoking, and why not apply the creosote direct to hams in the first place, either by the usual smoking or by a slight admixture of creosote with the brine?

Hearth and Home.

A TALK WITH THE YOUNG FOLKS ABOUT THE MONTH.

"Hail charming May!" Everybody welcomes the month of May, "for, lo, the winter is past, the rain is over and gone, the flowers appear on the earth, the time of the singing of birds has come, and the voice of the turtle is heard in the land" Any taste of cold weather we may now have can be but transient, and however things may look, we know the summer is nigh.

How pleasant to be able to take walks in the fields and woods once more, to see the green grass and the blooming flowers, and to drink in the balmy air of spring. But to enjoy the full happiness thus to be obtained, we must walk with God in the fields and woods, behold his wisdom in the bursting vegetation, and feel his love shed abroad in our hearts. No doubt there is a certain pleasure in looking at nature with eyes that see only the creation, and fail to behold the Creator; for there is an inherent loveliness in these objects. "He hath made everything beautiful in his time," and beauty cannot fail to excite admiration and pleasure. But so plainly is the name of God stamped on his works that those must be blind, indeed who do not read it everywhere. The "eternal power and Godhead" of the Creator are so distinctly declared by his words, that even the very heathen are left without excuse, "because that when they knew God, they glorified him, not as God, but became vain in their imaginations, and their foolish heart was darkened. Professing themselves to be wise, they became fools." Fools indeed they must be who don't feel convinced by the wonders of nature that there is a God. One of the ancient heathen philosophers was convinced of the Divine existence by reflecting on the fact, that if all men were to unite their skill and energies they could not make a single fly. He reasoned rightly. Only God can create. When we see flowers spring forth we should reflect on the wisdom and power they display. Some young ladies make very pretty wax flowers, but not all the



ladies in the world, young and old combined, could make a single real living flower.

"Not worlds on worlds in phalanx deep,
Need we to prove that God is here,
The daisy fresh from winter's sleep,
Proclaims his power in language clear."

We all admire and love flowers. Let them remind us not only of the Creator, but of the Redeemer. He compares his beauty and grace to the fairest and sweetest flowers, saying of himself, "I am the Rose of Sharon, and the Lily of the Valley." Do we thus esteem Christ? Is His name fragrant as the rose, and beautiful as the lily to us? Do we think Him "the chief among ten thousand," and "altogether lovely?"

"Nor earth nor sea, nor sun nor stars,
Nor heaven his full resemblance wears,
His beauties we shall never trace,
Till we behold him face to face."

—♦—♦—♦—
TO CURE A FELON.—When indications of a felon appear, take a piece of rennet and soak it in warm milk until it becomes soft; then apply it to the part affected, renewing it occasionally, and keeping on until a cure is produced.

MOULD POISONOUS.

Mould, however induced,—whether eaten in cheese, or mouldy bread, or other food, or breathed in the infinitesimal spora that are diffused from it in the atmosphere,—seems to be the source of a great variety of very serious diseases. One variety, which is found in the hold of damp and badly ventilated ships, is proved to be the cause of ship fever, which is often very fatal.

Another variety, which is found in some localities, formed on newly-stirred earth, is the cause of fever and ague; and in one place at one time, in Western Pennsylvania, every man who worked in digging a canal was affected with it, and most of the inhabitants who lived in the vicinity, on low grounds, were also affected; but above a certain elevation all escaped; and on examination with a microscope, spora from mould on the recently made banks, too fine to be seen by the naked eye, were found floating in the damp evening air in every house where those slept who were taken with the fever, but none in the houses on a higher level, where there were no cases of fever.

Other varieties of mould, in cellars and damp places, are believed to be the cause of typhoid fever, endemic dysentery, and many other diseases whose origin cannot otherwise be accounted for. These facts should make us afraid of all moulds, and, indeed, of all decomposing materials, whether in the food we eat, or in our dwellings, or even in our vicinity, where they can impart to the air a deleterious influence.

As corroborating this view of the case, it is a significant fact that in New Orleans, with more people in it than usual, for five summers, while the houses and streets were kept clean and clear from all decomposing substances, not a case of yellow fever occurred—an exemption never before known; and this, indeed, is almost proof positive that yellow fever is caused by mould, or at least by decomposition, with which mould is always associated.—*How not to be Sick.*

HOW TO MAKE CRANBERRY PIE.

There are various ways. Some make them open like a custard or squash pie. This is good, but not so good as to cover like an apple pie. Do not stew the berries as some do before baking, but slit each berry with a knife. This will preserve the freshness of the fruit, which is quite an important thing. A coffee cup full of berries and an equal quantity of white sugar, will make a medium sized pie. Those who like a sweet pie should have more sugar, also more berries if desired. Bake as usual. A little flour sifted over the fruit gives it a thicker consistence. One thing should not be forgotten—add a small teacupful of water. We will give the receipt in short: One coffee cup full of slit berries, the same quantity of white sugar, half the quantity of water, with a little flour added or not. This is one of the very best pies for variety, in the whole course of cookery. It is good looking and good eating.

TRIPE AND HOW TO COOK IT.

Tripe is one of the most nutritious, as well as healthful articles of food we can procure. As an article of meat diet for summer, it is unsurpassed. It can be obtained in this market, put up in vinegar, either by the kit, whole or half barrel.

We give below two excellent methods of cooking it:

Fried Tripe.—Cut the tripe into suitable pieces, say two inches square, dip into a batter made of eggs, flour and water, then drop upon boiling lard. Cook till brown.

Tripe Rolls.—Pick the tripe up in strings, mix with a little flour, chopped onions and parsley; moisten with eggs well beaten; form a roll and drop it into hot fat. When nicely browned it is ready for the table.—*Prairie Farmer.*

QUINCE MARMALADE.

Pare, core and quarter the quinces; boil them gently uncovered in water, until they begin to soften; then strain through a hair sieve, and beat them in a mortar or wooden bowl to a pulp: add to each pound of fruit three quarters of a pounds of sugar; boil it until it becomes stiff, and pour into small moulds.—*Exc.*

Somebody asked Baron Rothschild to take venison. "No," said the Baron, "I never eat venison; I don't think it is so coot as mutton." "Oh," says the Baron's friend, "I wonder at you saying so; if mutton is better than venison, why does venison cost so much more?" "I will tell you vy; in this world, the people always prefer vat is *decr* to vat is *sheep*."

A tourist, stopping at a French hotel, saw the phrase "fresh water chicken" on the bill of fare. Desiring to know what this meant, he sent for a dish of water chicken. He tried it, and finding it excellent, recommended it to the rest of his party, ladies and all. All liked the dish wonuerfully, and so became frog-eaters without knowing it.

WHY IS A BABY LIKE WHEAT?—Because it is first cradled, then threshed, and finally becomes the flower of the family.

THE EARLIEST BIRD IN THE MORNING.—A Huntingdonshire labourer said to me: "There's a saying, 'up with the lark;' but there's a bird that's earlier than the lark. The cuckoo's the first bird to be up in the morning, and he goes round and calls the other birds. You may hear him a hollering and waking them; and then they set up their charm."—*Notes and Queries.*

MR. MICAWBER'S ADVICE.—"My other piece of advice, Copperfield, you know. Annual income, twenty pounds; annual expenditure, nineteen, eleven and six. Result—happiness. Annual income, twenty pounds: annual expenditure, twenty pounds, ought and six. Result misery. The blossom is blasted, the leaf is withered, the god of day goes down upon the dreary scene, and—in short, you are forever floored."

Poetry.

"LITTLE BY LITTLE."

"Little by little," the torrent said,
As it swept along in its narrow bed,
Chafing in wrath and pride;
"Little by little, and day by day,"
And with every wave it bore away
A grain of sand, from the banks which lay
Like granite walls on either side.
It came again, and the rusing tide
Covered the valley far and wide,
For the mighty banks were gone;
"Little by little, and day by day,"
A grain at a time, they were swept away,

And now the fields and meadows lay
Under the waves, for the work was done.
"Little by little," the tempter said,
As a dark and cunning anare he spread
For the young unwary feet—
"Little by little, and day by day,
I will tempt the careless soul astray
Into the broad and flowery way,
Until the ruin is made complete."
"Little by little," sure and slow,
We fashion our future of bliss or woe,
As the present passes away.
Our feet are climbing the stairway bright,
Up to the region of endless light,
Or gliding downward into the night,
"Little by little, and day by day."

Music.

JUST AS I AM.

1. Just as I am— with - out one plea, But that thy blood was shed for me, blot—
Just as I am; and wait - ing not To rid my soul of one dark blot—

And that thou bid'st me come to thee, O Lamb of God, I come, I come.
To Thee whose blood can cleanse each spot, O Lamb of God, I come, I come.

3. Just as I am, though tossed about,
With many a conflict, many a doubt,
With fears within, and foes without—
O Lamb of God, I come, I come.
4. Just as I am, poor, wretched, blind;
Sight, riches, healing of the mind,
Yea, all I need, in Thee to find,
O Lamb of God, I come, I come.

5. Just as I am, thou wilt receive,
Wilt welcome, pardon, cleanse, relieve,
Because thy promise I believe—
O Lamb of God, I come, I come.
6. Just as I am—thy love unknown,
Has broken every barrier down;
Now to be thine, yea, thine alone,
O Lamb of God, I come, I come.