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THE

Canadian Agriculturist,

OR

JOURNAL AND TRANSACTIONS OF THE BOARD OF AGRICULTURE

OF UPPER CANADA.

VOL. XIV. TORONTO, DECEMBER 1, 1862. No. 23.

Agricultural and Veterinary Institution.

It will be seen from an advertisement on our last page, that a class is about to be formed in this city, for the encouragement among our young farmers of the study of Agriculture in its scientific and practical relations, and of the Veterinary art, in reference to the Anatomy, Physiology, Diseases and their modes of treatment of farm animals. The latter will comprise the history of the different races, and the principles of breeding, with appropriate illustrations. Mr. Smith is familiar with the most approved methods of treating in Europe, being himself a licenciate of the old Veterinary College of Edinburgh, where he attained high standing, and will study to adapt his instructions to the capacity and special wants of his students, who will have additional opportunities of facilitating their studies by engaging in dissecting and the use of instruments.

In the department of Agriculture, Professor Buckland will receive valuable assistance from several of his colleagues in University College, in Chemistry, Geology, Botany, Entomology, and other branches of Natural History, all of which have important bearings both on the theory and practice of Agriculture. The composition of soils, plants and animals, will be as fully treated of as the time will permit, with descriptions of the most approved implements and machines, and the principles on which they act. Manures, their composition and modes of action; rotation of crops, and a description of the various products of the farm, and their comparative value; the alteration and construction of Farm Buildings, the laying-out of fields, fencing, road-making, fruit and ornamental planting, will also receive attention.

The chief design of these lectures is to point out to young men actually engaged in farming, who have not had the means or opportunity of making themselves acquainted with the scientific principles on which the agricultural art is based, *the cheapest and readiest way of acquiring this knowledge.* With this great end in view the pupils will be fully instructed how to read and study the best treatises on the various subjects that will come under their consideration, and to form a correct habit of observing, recording, and applying the agricultural phenomena of daily life. As the successful prosecution of agriculture, as a business, greatly depends on a correct and vigilent habit of every-day observation, the opening of the eye and the exercise of the reason and judgment on the changes that occur in nature, and in the markets of commerce, great pains will be taken to develope these qualities in the class, *and to prepare young men to think, study, and observe for themselves.* It being intended to form a class of this character every winter, its studies will as far as possible be made complete in one

term; but in case of students presenting themselves a second time, facilities will be afforded for carrying out their studies and investigations to a wider extent.

In the Veterinary department the instruction will proceed from rudimentary principles to their application in practice; and the main object aimed at is to enable young men to acquire a correct general knowledge of the structure and physiology of the domesticated animals, and of the most approved methods of treating ordinary diseases, an acquisition in itself of no mean practical value. The pecuniary loss to farmers, every year, from a want of this kind and degree of knowledge and skill, is much greater than is generally imagined. Mr. Smith is open, we believe,—to receive *professional* pupils,—such as intend to follow the Veterinary art as a means of livelihood: and one of the chief objects of the Board of Agriculture in originating this movement is the hope of establishing ultimately, in this section of the Province, a regularly organised Veterinary School, in which the various branches will be thoroughly and *professionally* taught by a complete staff of Professors. This, however, must be a work of time. As the live stock of the country has been of late years rapidly increasing, both in amount and quality, and consequently in money value the proper understanding and treatment of disease is daily becoming a matter of greater moment. Hence the necessity of making a commencment in this direction.

As the introduction to the class, to which we have now drawn attention, will be gratuitous, and no further expense to pupils need be incurred beyond that for board for a week at the most leisure period of the year, it is hoped that a goodly number of young men, desirous of self-improvement, from different sections of the Province, will present themselves on the approaching occasion. Let none keep back from a supposed deficiency in preliminary qualifications; an ordinary English education is all that is really required. The principal requsite is *a desire to learn*. No kind of examination will be required either on entering or leaving the class. But to such as may be disposed to pass an examination in all the subjects at the end of the term, prizes in books will be awarded in accordance with the proficiency attained. We like the idea of these prizes much; they will tend to stimulate study and a healthful rivalry among the pupils, and those who are successful will take with them into the country some of the best books relating to their pursuits, that will for a long time to come benefit both themselves and neighbors. Such young men will in time become rural missionaries in their respective localities, and infuse around them a desire for knowledge—and agricultural improvement.

Ice-Houses.

WRITTEN FOR THE AGRICULTURIST.—The best time for building ice-houses being now at hand, and as it is not generally known that with a little additional expense an ice-house can be constructed so as to answer the double purpose of keeping ice, and preserving milk, butter, &c., I will give your readers a description of one, which I built in the Fall of 1859, with a preserving chamber for this purpose.

Ice can be kept in large quantities during the whole summer season in houses built entirely above ground; but where it is desired to have a preserving chamber, and to insure a sufficiently low degree of temperature to attain good results, it is indispensably necessary that the earth should be banked up to the height of several feet against the outside of the building. In constructing my ice-house, I took the advantage of a convenient and descending spot, sunk a pit fifteen by eighteen, and from 4 to 5 feet deep; walled it up to the height of 9 feet, banked the earth up to the top of the wall all around, except a space for the doorway; upon the wall I put a frame 6 feet high which gives a height inside from the bottom to the comb of the roof of over 20 feet. I put in heavy sills in the bottom, except in a space 4 feet square for the preserving chamber. Upon the sills, I put a floor of two inch oak plank, and on the top of this a floor of one inch pine jointed close. The floor has a descent of two inches towards the preserving chamber, and it conducts the waste water from the ice to this chamber. I put in an inside frame, and lined it inside; this left a space of six inches between the lining and the wall to fill in with sawdust, and the partition between the ice and preserving chamber is also double, and filled in with sawdust well-packed.

To complete the preserving chamber, I put in clean sand to the depth of four inches, then paved it with medium burned bricks, the

being preferable to hard, on account of their capacity to absorb and retain a large amount of water. Pains were taken to have the floor exactly level in the one direction, and also very tight, so that all the waste water from the ice shall be conducted to and distributed regularly upon the bricks. This keeps them so constantly cold as to preserve milk, during the hottest season for from thirty-three to thirty-six hours, perfectly sweet, and butter very hard. One valuable feature belonging to this mode of preserving milk and butter is, that during the warmest weather of summer season, when cold sweet milk and butter of a degree of solidity equal to that of the winter season is appreciated as one of our greatest luxuries, we can have it so, from the simple fact that at that particular time the supply of the cold ice water is greatest.

Butter made and kept in this way does not become as soon soft after being brought to the table as that which has been kept in a spring of water, nor do thunderstorms appear to hasten the development of lactic acid. We have noticed no perceptible difference in the length of time which the milk has remained sweet in regard to clear or stormy weather. I have observed at different times, by placing the thermometer within one foot of the bricks in the preserving chamber, that the temperature was about 54 degrees, while it was 95 in the shade outside. The sand underneath the bricks subserves an important purpose, by retaining the water, and supplying it to the bricks by capillary attraction at such time, as there is not a great s pply coming from the ice.

The space above the preserving chamber should be opened and unobstructed to the roof, and over the ice there should be good ventilation to the roof, to carry of all the vapour which may arise from the milk.

An ice-house constructed in this manner is one of the best investments for a farmer, for besides securing the luxury of preserving milk and butter cool, vegetables of different kinds may be preserved fresh until a succeeding crop grows. I kept one year's beets good during the following summer; also cabbages. These latter I laid upon the ice, which imparted to them a crispy sweetness, perfectly delightful in the very warm weather of June. Vegetables may also be preserved in this manner by farmers, so as to bring them fresh to the market in early summer.

Destruction of the Wireworm, &c.

To the Editor of the Agriculturist.

Sir —As you and your correspondent, Agricola, invite the readers of the *Agriculturist* to give an opinion as to the best mode of destroying the wire-worm, I take the liberty of submitting a few observations, the result of some experience and long observation on that and some other matters connected with Agriculture. I confess being startled at the communication of your correspondent, as I was not aware of the existence of those destructive pests to the extent Agricola complains of, in any locality of this township. I believe there is at least one infallible remedy for this evil, but unfortunately it is unattainable in most parts of Canada. On the Yorkshire wolds and in Lincolnshire, when old pastures and extensive sheep walks were brought into cultivation, the first, second and perhaps third crops did pretty well, afterwards, the turnips and grain crops were often destroyed, especially on deepish soil, to a considerable extent by the wire-worm and grubs. However the farmers discovered that by giving the land a thorough covering with calcareous marl or lime stone, dug out of pits made in the fields where the evil existed, they effectually got rid of the mischief, and abundant crops of both roots and grain were afterwards a certain result. Some farmers preferred giving the land affected a good dose of quick lime, as the labour was much less than marling or chalking. They also imagined that a profit was sooner realized, in consequence of the quicker fertilizing effects of the lime. But there are but few sections in Canada that will allow of such a practice, and I know of no such a situation in this township that will admit of it. I therefore respectfully suggest to your correspondent a mode of management which, if he thinks worth his while to adopt the principle, will, I sincerely believe, materially lessen, if not rid him altogether of, the grievous evil. I would recommend him to commence by having at least one fifth of his tillage land a naked fallow, and have that thoroughly plowed deep in the preceding fall; as soon as possible after the spring seeding is over and when the land is dry enough, to have the fallow well harrowed, and immediately after thoroughly cultivated as deep as the best implement will allow of, then by a diligent use of harrows and perhaps an iron toothed horse-rake, carefully collect all the weeds, roots of weeds, &c., into heaps and burn them; by so doing an immense number of worms, larvæ and ova will be effectually destroyed. When that is accomplished, if from thirty to fifty bushels of quick-lime is carefully distributed over the fallow, and then cross-plowed, harrowed and gone over with a heavy roller to compress and consolidate the ground, thereby retaining the causticity of the lime longer in the land, the lime will be of immense benefit not only by destroying the worms, &c., by virtue of its causticity, but as a fertilizer and by its chemical action on the organic materials of the soil, rendering them more soluble as food for vegetation. It will be well now, to let the land remain three or four weeks undisturbed, then if it should be weedy, the use of the plow or cultivator, or it may be both, will be needed again. After

which, it may be presumed the land will be in proper condition for receiving the dung, prior to ridging up for sowing fall wheat, or, as Agricola suggests, allowing a portion to remain for spring wheat.

It is, perhaps, unnesary to observe that lime and dung should never be applied together, as the fertilizing properties of dung are in a great measure dissipated by the chemical action of quick-lime. The year following, after harvest as soon as other work on the farm will admit of it, it is advisable to plow in the wheat stubble, a portion of which, say half or more, may with propriety be sown with pease in the spring. It is an approved practice to put the pease in with a drill, leaving an interval of twelve or fifteen inches between the rows, to allow of the effectual use of the hoe for the extirpation of thistles and other weeds during the growth of the crop. The remainder of the land, to be appropriated for growing potatoes and other roots. I may observe that the wire-worm and other grubs will occasionally destroy white turnips during the early stage of their growth, but it is a singular fact that those pests will not molest potatos or Swede turnips (*Ruta Baga*). In my humble opinion grounded on experience of a few years in Canada, the best time for sowing Swede turnips is from the 15th to about the 25th of June. I may say by doing so, I have invariably succeeded in obtaining a crop, and never had to sow the seed a second time in the same season. It is absolutely necessary to have the land in good condition, cleared of all weeds and rubbish, and well pulverized by cultivation. A two rowed seed and manure drill is the best for putting in turnip seed with manure on slight ridges with an interval of about twenty four inches between each,—an excellent composition to drill with the seed, may be prepared of eight bushels of bone dust or half inches, one bushel of salt and eight or nine bushels of ashes to each acre, to be well mixed and screened, to be suffi ciently dry when used so as not to interrupt the working of the drill. The fertilizing and alterative properties of this manure, will endure beyond the turnip crop and greatly benefit the succeeding crops. As soon as the plants are in rough leaf, the interv.ls ought to be well horse-hoed, just before the plants in the rows are thinned out, and kept quite clear of weeds by the horse and hand hoes during the after stages of their growth. The next crop in succession may be spring wheat or barley, with grass seeds of clover and timothy. If the pea and root land has been plowed in the fall, which is the best practice, it will be necessary prior to sowing the grain in the spring, to harrow and then go over it with the cultivator, to make proper channels for the reception of the seed. It perhaps would not be expedient under the circumstance of Agricola's farm having the wire-worm, to let it remain longer than one year in grass; it may then be plowed early in the spring following and sown with oats, which will end the rotation. I am led to believe if your correspondent adopt this or some similiar rotation of cropping, he will much mitigate the great evil he complains of, and by diligently weeding thistles and other pernicious weeds, out of all his crops during their growth, the result of his farming will be both profitable and pleasant to him. To sustain the fertility of the land, it is imperative to collect and take care of all the manure the farm produces. To avoid much of the waste caused by the spring floods washing away the juices of the manure in the barn yard, I deem it advisable to clear the yards as much as possible in February, and pile the dung in tolerably large heaps in the fields where it will be wanted. What liquids flow from the piles during the progress of decomposition are by this plan retained on the land. It occurs to me that the manure would probably benefit the fall wheat most, in the above rotation, and secure a better quality and perhaps more grain, if it could be spread on the sod prior to plowing for the oat crop. It would then become thoroughly incorporated with the soil in the process of fallowing for wheat. Practical and observant agriculturists hold that raw manure to a wheat crop encourages too much the growth of straw and makes it more subject to mildew and rust, thus deteriorating the grain. EBORENSIS.

Chinguacousy, Nov. 21st, 1862.

[We are obliged to our correspondent for his valuable contribution, from which *Agricola* and our readers generally may gather useful suggestions. We shall be happy to hear from him again on the results of his agricultural observation and experience.—ED.]

Transplanting Trees—Old Notions.

On looking over old recommendations and old practices, it must be admitted that the art of transplanting and managing fruit trees has made a great advancement. It is not beyond the memory of old men, that the recommendation was common to sow oats and plant potatoes in the holes in which newly set trees were placed —the reasons given were the loosening of the soil and shading of the surface. Others held the roots to their places by piling stones upon them. Others again, thought the best thing they could do was to fill the hole with fresh manure, or at least two or three inches of fresh manure directly in contact with the roots. We have seen an orchard of 300 peach trees set out in a clover meadow, without any further care, and where nearly all died the first year. Ten years ago, we inquired of a tree agent of close observation, and who had effected extensive sales of dwarf pears, what proportion of these trees were properly cared for, so as to prove successful and bear crops? His answer was

"not more than one in a hundred—all the rest are thrust out into hard or grass ground, or entirely neglected in culture, or never pruned."

We shall have enough bad treatment; but the number who know what good management is, and who practice it, has increased greatly within the last ten years. Many have learned that oats, potatoes, grass, or any kind of weeds, growing about a young tree, however much they may shade the surface, carry off the moisture from the soil, and exhaust its fertility, many times more rapidly than a simple exposure of the bare and mellow surface of the ground—and that when there cannot be a mulching of this surface by mellow soil, a coating of *dead* vegetable matter is the only thing admissable. Many, after killing whole orchards by placing fresh manure on the roots, have discovered that fine rich mellow earth, is the best thing to be placed in contact.

Agricultural papers have done much towards effecting the improvement that has been made; and nurserymen, who are aware that those who lose trees will not be likely to purchase again, and that the best way to effect sales is for their customers to enjoy fine delicious crops, have accomplished much by their assiduous labors. But in riding through the country, and observing how many young orchards still stand in grass or in neglected fields, we see the continued necessity of urging on the recommendations for better management, and now that the season for autumn transplanting is approaching, we trust that all who desire success, will resolve that the trees they buy these hard times, shall be well set out, and more especially thoroughly cultivated.—*Cultivator.*

EXPERIMENT TRIED WITH DISEASED POTATOES. On taking up a crop of potatoes in the first week of October last year (1861, I found that three parts of them were very badly affected with disease—indeed so much so, that they were too bad even for the food of the pigs. I was induced to try with them an experiment on a small scale, which was done as follows:—On the day following that on which they were dug, I had a piece of ground (60 feet wide by 112 feet long) dug up to the depth of 14 inches; three drills were opened at a distance of 2 feet from drill; then the diseased tubers were planted whole, at a distance of 3 inches, set from sets in the drill; a good dusting of newly slacked lime was spread over all the sets in each drill; and they were then covered over with soil to the depth of 7 inches. Nothing more was done to said piece of ground until this spring, when, to my agreeable surprise, the plants made their appearance above the surface with scarcely a blank over the whole piece. The ground was then forked over between the rows to the depth of 10 inches, so as to loosen thoroughly the soil, and nothing more was done than once drawing a little soil to the plants, and keeping the ground clear of weeds, until the 17th of last July, on which day I commenced taking up the potatoes for use, and, to my astonishment, I found a crop such as I never before have witnessed since the disease first attacked potatoes in this country; for they not only were most prolific, but of an unusually large size, and up to the present date (August 26) I have not found one tuber affected by the disease.—JOHN DAVIES, Gardner to Sir C. H. Coote Ballyfinn House, Mountrath, Queen's County.—*Field.*

On the Construction of Piggeries.

We take the following useful suggestions on the best methods of constructing piggeries from a treatise on the Hog, recently published by C. M. Saxon, Barker, & Co., New York. Too little attention is paid to these matters by farmers in general. No animal pays better for good feeding and proper care than the pig:—

There are few things more conducive to the thriving and well-being of swine than airy, spacious, well-constructed styes, and, above all, cleanliness. The old prejudices—that any place was good enough to keep a pig in, and that filth and pig-styes were synonymous terms—are now passed away, and the necessity of attention to this branch of porcine economy generally recognized.

Formerly swine were too often housed in damp, dirty, close, imperfectly built sheds, this was an error, and a fruitful source of disease, and of unthrifty animals.

In large establishments where numerous pigs are kept, there should be divisions appropriated to all the different kind of pigs; the males, the breeding sows, the newly weaned, and the fattening pigs should all be kept separate; and it were as well that in the divisions appropriated to the second and last of these four classes, there should be a distinct apartment for each animal, all opening into a yard or inclosure of limited extent. As pigs require warmth, these buildings should face the south, and be kept weather-tight and well drained. Good ventilation is also important, for it is needless to expect animals to make good flesh and retain their health unless they have a sufficiency of pure air. The blood requires it to give it vitality and free it from impurities, as much as the stomach requires wholesome and strengthening food, and when it has it not, becomes vitiated, and impairs all the animal functions.

"The blood, the fountain whence the spirits flow,
The generous stream that waters every part,
The motion, vigor, and warm life conveys,
To every moving, breathing particle."

becomes contaminated by those aerial poisons given out by the decaying vegetable matter, rotten or damp litter, accumulations of dung, and animal exhalations engendered by ill-ventilated styes.—These noxious gases are inhaled by the skin, until they enter the circulation, and impair its vivifying fluid. It is by the action of the atmospheric air that venous blood is converted into arterial, freed from all its impurities, and rendered fit to sustain all the vital functions; hence it must be at once evident that if this important agent is in the first place contaminated, its action must be impaired and its effects emposoned. Besides, bad smells and exhalations injure the flavor of the meat.

Damp and cold floors should also be guarded against, as they tend to induce cramp and diarrhœa; and the roof so contrived as to carry off the wet from the pigs.

The walls of a well-constructed sty should be of solid masomy; the roof sloping, and furnished with spouts to carry off the rain? and floors either slightly inclined toward a gutter made to carry off the rain, or else raised from the ground on beams or joists, and perforated so that all urine and moisture shall drain off. Bricks and tiles are much used for the flooring of styes, but are objectionable, because, however well covered with litter, they still strike cold; wood is far superior in this respect; as well as because it admits of those clefts or perforations being made which we have just recommended, and which not only serve to drain off all moisture, but admit fresh air as well. The value of the litter and dung as manure, must always be borne in mind, and all things so arranged that none of it shall be wasted.

The door of each sty ought to be so hung that it will open inwards or outwards, so as to give the animals free ingress and egress; and to do this it should be hung across from side to side, and the animal push it up to effect its entry or exit: for if it were hung in the usual way it would derange the litter every time it opened inwards, and be very liable to hitch. If it is not intended that the pigs shall leave their sty, there should be an upper and lower door, the former of which should always be left open when the weather is warm and dry, while the latter will serve to confine the animal.

There should also be windows or slides which can be opened or closed at will, to give admission to the fresh air, or exclude rain or cold.

Mr. Henderson's descriptions of the styes is more lucid and practical than mere vague directions, we will therefore give it in his own words:—"The plan which I recommend is as follows. Have a house thirty feet by fifteen, with four doors all opening outwards, and three partition walls through the house, viz., a wall between each of the doors, dividing the house into four compartments. The two middle ones I use for eating-rooms, and the other for sleeping-apartments, having an inner door between each eating and sleeping-apartments.

"The following is the most convenient manger for their food. Let it be as long as the house is wide, and fixed against the middle wall; in form similar to a horse manger, but not so deep, and must be divided into twelve divisions by partition bands four feet in length or height, and a little broader than the manger is wide; thus a number will feed as well and as quietly together as two or three. Before every meal the trough should be well washed and the place swept, and once in the day a little fresh litter placed in the sleeping chambers. Each of these sleeping and eating rooms may be temporarily divided into two, if necessary. The sleeping rooms should be dark, as animals fatten much more rapidly when they lie down and sleep after each meal than they do when they wander about. There should be a square yard to each piggery; well paved and drained, as should the styes also be; and where it is possible, a enclosure or a small piece of ground adjoining is exceedingly useful."

Those who have space to admit of it will find it advantageous to have five apartments instead of four, and in the fifth or central one to have a boiler to prepare the food, and chests and lockers to contain the various stores."

Parkinson advises that in the yard or enclosure before every piggery should be a "rubbing post or what is still more beneficiel, two posts having a pole between them similiar to a horse leaping bar, but not revolving; this pole should be raised or let down to the height of the pigs as the rubbing of the animals against it causes a freer circulation of blood, the same as the flesh-brush does to human bodies."

In all large establishments there should be proper apparatus for cooking, mixing, and preserving the food. For this a boiler and steamer will be requisite, and some two or three tubs which may be made of bricks plastered over on the interior to prevent leakage, and fixed in the ground. Wherever it can be managed, troughs should be so situated that they can be filled and cleaned from the exterior without interfering with or disturbing the animals at all, and for this purpose, the following very simple contrivance has been recommended: "Having a flap or door with swinging hinges made to hang horizontally over the trough, so that it can be moved to and fro, and alternately be fastened by a bolt to the inside and outside of a man. When the hogs have fed sufficiently, the door is swung inwards and fastened, and so remain until feeding-time, when the trough is cleaned and refilled without any trouble, and the flap door back and the animals admitted to their food. Some persons cover the trough with a lid having as many holes in it as there are pigs to eat from it. This is by no means a bad plan, for then each pig selects his own hole and eats away without interfering with or incommoding his neighbor.

We are indebted to the kindness of a

for the following account of the Royal piggery, at the Home Farm at Windsor. It consists of slated sheds, of sufficient length and breadth to contain about two dozen styes, of somewhat larger dimensions than ordinary pig-styes, and arranged in two rows with a broad walk between them, from which the spectator looks into the styes on the right and left of him. Each stye has an in-door and an out-door apartment, the former having a wooden coverlid to it, going upon hinges like the lid of a corn-bin, instead of a roof, which may be raised to any height in hot or close weather, so as to admit any influx of air required, or even to be thrown back if necessary. The styes are paved with brick both within and without doors, and their floors slightly declivitous.

The following is a description of a piggery at Lascoed Pont Senry planned and executed by Mr. J. Donaldson, 1 Steward to A. M. Storley, Esq, Brecon, South Wales:—This piggery is constructed for the purpose of breeding and feeding on a large scale to suit a farm of six hundred acres of turnip soil in an inland situation, where convenient markets render easy both the disposal of fat and lean stock. There are seven styes at the end of the steaming house which accommodate a boar and six brood sows, which are calculated to produce yearly one hundred pigs, sixty of which will be fattened from September to April in fifteen styes, placed in two parallel rows, and made to contain two hogs in each apartment. The rest are sold as stores. The yearly rental is from £200 to £250 according to the prices of the produce. The steam food consists of potatoes and meal, with grain to finish, and is conveyed to the styes along a paved road or path, in a small four-wheeled waggon. The steamer also cooks potatoes for the working horses, and chaff for milch cows, and thus applies the original cost to several purposes, and fully employs a man. The store pigs are fed in summer with clover and vetches, and in winter with roots either raw or steamed. Water is brought to the steaming house in a pipe from the farm yards, which are all supplied by ball-cocks from elevated casks fed by a forcing pump. A dipe underneath conveys the water from the potato-washer to the pond in the store-yard, where it passes to the yard, and then meeting with the collected moisture of the whole area of the piggery, falls through an iron grate into a paved culvert, and is conveyed to the manure pit, to which the liquid of the farmery is collected and brought by a drain; along the sides of the road are sheds opening into the store-yard. The cost of erecting a piggery like this will vary from £80 to £100, according to the price of labor and materials, and to whether the roofs be tiled or slated. The steaming-house has an upper floor to serve as a store-house for grain, meal, roots, &c.

The piggery should always be built as near to that part of the establishment from which the chief part of provision is to come as possible, as much labour will thus be saved. If the dairy is to supply this, let it be as near as may be to that building; or if it is to come from a brewery or distillery, then let it be near to them.

Care must also be taken to preserve the dung and urine, and some place fixed in which these matters can be stored for manure. Wherever the swine are regularly and well managed, this will not be difficult, for the animals will always, if they can, lay their dung at a distance from the place where they sleep or feed. A small paved yard, somewhat sloping, and with a gutter to serve as a receptacle, will best answer the purpose, and thence it can be daily removed to the proper heap or tank.

We have been told of a gentleman who keeps only a few pigs for his own use, and has a double sty for them, by which means he is enabled to keep them exceedingly clean and sweet. Every morning the pigs are changed from one into the other so that each sty remains unoccupied for four and twenty hours, during which time it is thoroughly cleaned out, and of course becomes well aired, and free from all unpleasant smell. And well do we remember the pleasure with which we used to view the pigs and styes of an old friend of ours now no more. A door leading out of his beautiful flower-garden brought us to those equally well-tended objects of his pride. The styes are always kept whitened on the inside; the sloping floor carried off all moisture to a deep gutter running between the sty and the square-paved yard, each of which inclined towards it; a trough ever stood with water clear as crystal for them to drink, and the animals themselves were, by washing, curry-combing, and perfect cleanliness about them, as neat and sleek as a lady's lap dog. They were, in fact, pet pigs. Nor are we without pleasurable reminiscences of delicate spare ribs, loins, and legs of pork, and delicious sucking pigs.

Washings, combings, and brushings, are valuable adjuncts in the treatment of swine; the energies of the skin are thus roused and the pores opened, consequently the healthful functions are aided, and that inertness so likely to be engendered by the lazy life of a fattening pig counteracted We cannot close this chapter without quoting the following account of the mode of keeping pigs in Mexico:

"Fine breeds of these useful animals are kept by many persons of wealth, as an article of trade, in the city of Mexico; and the care and attention paid to their cleanliness and comfort so far exceed any thing I have seen elsewhere, that a short account may be useful by furnishing hints to our farmers, brewers, distillers, &c., by whom numbers of these valuable animals could be and are conveniently kept. The premises where the business is carried on are extensive, consisting in general of good dwelling-houses, with a shop, slaughter-house, and places for singing the

pigs, large bowls for rendering the lard, salting and drying-rooms, and lard-rooms, with wooden bins for containing the rendered fat, which is an article of great consumption in Spanish cookery, being used as a substitute for butter. There is a soap manufactory, in which the offal fat is manufactured, and apartments were the blood is made into a kind of black-pudding, and sold to the poor. Behind all these are the styes for the hogs, generally from eight hundred to one thousand in number, which occupy a considerable range of well-built sheds about thirty feet deep, with roofs descending very low, and having the entrance through low arches, before which is an open space the whole length of the yard, and about twenty-four feet wide, in the centre of which is a kind of aqueduct built of stone, and filled with clear water from a well at the end of the premises. The hogs can only put their noses into this water through holes in the wall, which prevents their dirtying it, as it passes through the whole division of the yard. This is the only liquid given them, and their food is maize or Indian corn, slightly moistened, and scattered at stated hours on the ground, which in the yard, as well as the place where they sleep, is kept perfectly dry and clean. They are attended by Indians with every possible care. There is a cold bath on the premises, which they are obliged frequently to use, as cleanliness is considered essential to their acquiring that enormous load of fat from which the principal profit is derived. Their ease and comfort seem also in every respect to be studiously attended to; and the occupation of two Indian lads will cause a smile on the countenances of my musical readers when they are informed that they are employed from morning till night in settling any disputes or little bickerings that may arise among the happy inhabitants of this community, either in respect to rank or condition, and in singing them to sleep. The boys are chosen for the strength of their lungs, and their taste and judgment in delighting the ears and lulling the senses of this amiable harmonic society; they succeed each other in chanting during the whole day, to the great delight and gratification of their bristly audience, who seem fully to appreciate the merit of the performers."

Training Colts Young for Special Objects.

The great importance of considerable regular exercise in the development of strength, growth, health, and their cognates, is, in one way or another pretty generally recognized and conceded. An animal cannot live without breathing; cannot breathe without a natural supply of air, and cannot get a full natural supply of air without ample exercise or locomotion. The extent to which an animal breathes depends, beyond a limited point, absolutely upon his exerting his locomotive organs. In brief, breathing has been made by the author of nature to *depend*, in a large degree, upon exercise as a cause, basis, and motive force. The circulation of the blood generally, as well as the whole process of nutrition, depends largely upon the extent in which the motive force of exercise is brought into play. A thorough and able thinker and writer says, "Though not the sole cause of the circulation of the blood, yet it (exercise) is an indispensable condition. The contracting muscles everywhere impel the blood along its course, and without the aid of conditions established by exercise, the motion of the fluids of the body flags and stops; the outlets of the body become choaked, and waste matters are not disposed of; affinity of the blood for oxygen declines, and the vital fluid remains unpurified; the stomach no longer digests food, because it is not taken away from that organ; the extremities lose their healthful temperature," &c., &c. Such are some of the reasons why circulation, nutrition, and general growth all depend upon exercise in so great a degree. I quote further very briefly. Exercise "not only determines the *amount* of food and oxygen required by the system, but is absolutely necessary in the *disposition* there made of them." Thus the formation of the muscular system of all animals most certainly depends upon exercise, and the muscular parts and powers of the horse more so than those of any other domesticated animal, because of the greater natural activity which his structure is fitted for and his health requires. Very many illustrations of the influence of exercise might be cited, as the large muscular parts and powers of negroes and other laboring men, as compared with the slender limbs and little strength of those who make their growth in in-door or inactive life. The arm of the smith and sailor show its effects on particular limbs or members, when those are used or exercised more than other parts of the system, though this has been so often referred to as to be generally admitted.

What I wish on this occasion is to show the application of the principle to a new purpose, viz., to the training of colts, and the maturing of horses for special objects or purposes. At present, so far as I am aware, nothing more than inherited qualities, and good *general* muscular training *after* colts are old enough for work, comprise about all that is depended on to insure excellence of power for any particular purpose or order of labor, as trotting, carrying, or drawing. The English race-horse, and the American trotting-horse are very regularly exercised, walked, trotted, or cantered, or all in succession, as the case may seem to require. This course strengthens the muscular system and maintains the *general* vigor or muscular power as a matter of natural consequence.

But has the principle of increasing the size and power of the muscles of any important part of the body by special treatment or exercise a

such part and for a specific object ever been tried? I have heard of no experiment of the kind so far, yet I perceive no reason why the principle is not sound; why the idea cannot be made practical. Every one has been informed of the enormous increase in the muscular power of Dr. Windship resulting from special training, as is equally well known with facts before alluded to.

Though there be an increase of general muscular growth and power, in animals and men that take much exercise, over that in those who take little, still there is a limit in the vital power of any particular individual to the extent of general increase of muscular power. If all parts of the system are increased in size and power in a colt or a lad, from full general exercise, it seems to follow that if some part is exercised more than another, but not beyond its power of recuperation, that part will receive the most blood and the greatest degree of enlargement in size and increase of strength. This is illustrated by the instances already cited, and the causes of it are well defined in the quotation.

Now suppose the owner of a good brood mare, wishes to raise excellent saddle horses or horses that can draw unusual weights or given weight, at high speed in proportion to their own inches; why cannot this be done? I not only do not believe it not impracticable, but the contrary. Windship commences with lifting 500lbs. and increases his muscular power till he lifts a ton (I have not the information as to how much he can lift at present.) This is accomplished after he has *done growing*, after his muscular system generally is fully matured. If he had commenced special training while yet growing it is probable that his muscular growth and power would have been still more extraordinary in proportion, or nearly in ratio to the muscular means that induced it, up to the limits of total constitutional power. I am amongst those who favor training colts from the earliest possible time till maturity, and as men become great runners, walkers, lifters, etc., etc., by special training, I see not why the colt cannot have a strong back and the other accessories to great carrying power, or a good saddle horse, from similar agencies. Suppose a halter broken colt, as soon as weaned; then commence with him in carrying light loads, very gradually increased till he has made his full growth, or till he is six years old. Is it not highly probable by this sort of training—the general management being good—he will be able to carry *double* the weight by this time that he could have carried as easily with such training as is generally given? The same course might be adopted as to draft horses, either with heavy weights at a low gait, or light weights with high speed; but not as to both with the same animal, if a specific success is aimed at. Neither can the natural adaptation of any animal for any given special work be disregarded in assigning him to a different sort of work and action. Natural fitness, as well as special discipline, is requisite to success. All parts of the process—as all the wheels of a machine—must support one another with proportional dependence and power.

The principle upon which vital power acts in supplying unusual force, in such instances as we are contemplating, appears to be somewhat like this: Nature in a general way, has the power of self-adjustment, is self-protecting. If you use your legs, for instance, more than other members, they will be worn more by the attrition and friction resulting to all substances from motion or matter in contact, and suffer greater exhaustion of their substance thus worn off. To readjust this loss the vital power impels more blood to the part subject to extra motion and wear, and the flow of blood increasing in proportion to the increase of action and exhaustion, the part—legs, arms, back, or shoulders—is replenished and enlarged by a steady augmentation of substance or nutrition deposited from the increase of blood, till a large proportional increase of size and strength is the result—of specific increase of exercise as the prime original cause; and this course of nutritive action continues till no further supply of blood can be spared from the general system to any particular part in excess without danger of exhausting or impairing the general health and strength.

The principle is much the same as training a tree in some particular form, by causing the sap to flow in the desired direction—in certain branches more than any other; both sap and blood being subject to the control of vital organizing force, naturally opposed to and inconsistent with general chemical combination. And, as a simple practical question, I perceive no reason why the leading muscles engaged in drawing, carrying, &c., in colts, may not be increased in size and power as readily, and by similar means, in the back, shoulders, &c., as in the human arms or pedal members. It appears to me a practicable project, and if those who have the leisure and inclination and perseverance will give the idea a proper trial, I am satisfied that there need be no disappointment, but that the capacity of the horse will prove capable of special as well as general training and application, to an extent not by many anticipated.—*American Stock Journal.*

Horticultural.

Thinning of Fruits.

The following extract from the address of the President of the Pomological Society at its recent meeting in Boston, Mass, contains much that is of practical value to all cultivators of fruit.

One lesson which experience has taught us is the importance of thinning the fruit, especially

of apples and pears. This branch of Pomology has received comparatively little attention. There is a limit to the capabilities of all created things. If you tax the enemies of an animal too severely for a long time, the result will be premature age and decay. Subject any vegetable or mineral substance to too great pressure, and you destroy its power of cohesion. So if you permit a tree to bear beyond its strength, you injure its fruit, retard its growth, and shorten its life. All have observed that superfecundity one year produces barrenness the next. Hence we hear among our farmers and gardeners of what they term the bearing year. They invariably designate the Baldwin apple as a tree that bears on alternate years. But is not the cause of this alternation found in the fact, that the abundant crop of the bearing year exhausts the energes of the tree, and absorbs the pabulum so as not to leave sufficient aliment for the formation of fruit spurs for the succeeding year? Many varieties have a tendency to overbearing, especially those which produce their fruit in clusters. Nature herself teaches us the remedy for this evil, and a superabundance of blossom is generally followed by a profuse falling of the embryo fruit. When and where this dropping is not sufficient to prevent overbearing, we should resort to the process of relieving the tree of a portion of its fruit

The organism which carries on healthful development, in order to repeat its cycle of functions from year to year, cannot be overworked without time for recuperation. Whatever of nutrition goes to the support of useless branches, or a redundancy of fruit, abstracts that strength from the tree which would otherwise be appropriated to the perfection of the crop, and the development of the spurs which would bear fruit the next year. One of the best cultivators in the vicinity of Boston has reduced this theory to practice, with the happiest effect, in the cultivation of the pear. His system allows no useless wood, nor more fruit spurs, and no more fruit than the tree can properly sustain. As a consequence, he produces every year superior fruit which commands the highest price. Some have doubted whether this practice can be made remunerative, except in its application to the finer fruits. But another cultivator, who raise, an annual crop of the best apples, assures us that the secret of his success is the thinning of the fruit, and he has no doubt of the economy of the practice. No good farmer doubts the necessity of thinning his root crops, no *vigneron* the propriety of thinning his grapes. Analogy of cultivation, therefore, justifies the practice, and I entertain no question of its great importance.

Light, air, moisture, are essential to the production of vegetable products, and especially of fine fruits. Who has not observed that the best specimens of fruits on a tree are ordinarily those which are most exposed to these elements? Who does not select the full sized ruddy fruit, which has free communion with light, heat, and air, in preference to the half fed specimen which has shared its own proper nourishment with five or six crowded rivals on the same spur?

An experienced English cultivator says:—"The bending of branches of trees by an over crop of fruit is most injurious, for the pores of the woody stalk are strained on the one side of the bend, and compressed on the other; hence the requisite nourishment flows being partially shut up, the growth of the fruit is retarded in proportion to the straining and compression of the stalk." This is illustrated in the overbearing of some varieties, which from a redundancy of fruit, without the process of early and thorough thinning, seldom produce good specimens, and in a few years become stinted and unhealthy trees. The overbearing of a tree is as much a tax upon its energies and constitution, as is the exhaustion of a field by excessive crops of the same kind year after year, without a return of nutritive materials. Inexhaustible fertility is a chimera of the imagination. Sooner or later, the richest soil will require a restoration of what has been abstracted by vegetation. However fertile at first, the constant overcropping of the soil is a reduction of the elements on which health and fruitfulness depend. This great principle of sustenance and reciprocal relations runs through the whole mass of life, of mind, and of matter.

"One cry with never ceasing sound,
Circles Creation's ample round."

Intimately connected with this process of thinning, is the time when the work should be executed. It should not be done before we can distinguish the choicest specimens in a cluster of fruit, nor delayed so long as to waste the energies of the tree. This practice, judiciously followed, will supersede the necessity of staying up the branches, will prevent injury to the tree by their breaking, and will prove decidedly economical.

"Associated with the thinning of fruits is the expediency of gathering a part of the crop as soon as it approaches maturity. The remaining specimens will thereby be much increased in size and excellence. The fruit of a tree does not all come to maturity at the same time, hence this successional gathering will turn the crop to the highest practical account, and will keep the productive energies of the tree in a healthful and profitable condition."

The Ever-Blooming Rose.

If there is perfection in the vegetable kingdom, it is the Ever-blooming Rose. Its varieties are now so numerous, their colors so various, and natures so different, that they are arranged into five distinct classes.—Some can be grown in all climates and altitudes, and upon nearly

all kinds of soil. They are fit to make a diversified garden of themselves; growing as dwarf bushes, as tall stately plants, and clothing arbors, trellis-work, dead fences, &c., and even making hedges to fence in and shelter the garden. They are the monarchs of the flower bed, and reign triumphantly glorious over all other flowers; and blessed are they who possess the means, the liberality, and fine taste, to purchase all kinds, and the space to grow them in perfection.

The *Hybrid Perpetuals* or *Remontantes*, are generally of a stately robust growth; thrive equally well upon heavy and light loams, and withstand a northern winter without protection

The *Bourbons* are next in hardiness, and do best upon loamy soils, yet a slight covering of straw tied around them in winter north of New York, is of advantage to them.

The *Bengal*, *Chinese* or *Daily*, is next in hardiness, thrives both in loamy and sandy soils, and is preserved better by having a little straw tied about them north of Philadelphia.

Noisette is of the same hardiness as Bengal, and thrives upon the same kind of soils. The varieties are nearly all of a rampant growth; useful for training upon fences, ends of buildings, arbors, trellis-work, pillars, verandah frames, &c. The flowers, are generally small, double, and produced in clusters of twenty and upwards.

The *Tea scented* is generally of dwarf growth, profuse in bloom, and of the most delightful fragrance, which is diffused a great distance. They are less hardy than the other class, and need a covering of straw in winter north of Baltimore. They thrive best upon light loams and sandy loams, and will flourish in sandy soils. They grow to most perfection out of doors south of Maryland, and are the best for pot culture.

All the varieties of the five classes can be grown in the most northern climate by digging them up and potting them in the fall, and keeping them in cold frames or pits half sunk and half banked up, and with glass sashes, and covered with mats in very cold weather, shading them from bright sun in the winter time. As hundreds are yearly putting up cheap glass structures in which to grow foreign grapes, they are the best places to winter roses that cannot stand the severity of winter, as the grapevines are dormant in winter, and the roses could not be in their way, and they get the full light. With these advantages, people in northern latitudes can grow all kinds, and well will they be rewarded for their care.

What is a garden without a rose! As it lasts many years and takes deep root in the ground, the soil before planting should be stirred two feet deep and finely pulverized and enriched with short manures throughout. The black surface scrapings in woods, which is leaf mold, is the best manure for all kinds of roses.—*W. Elder, in Gardener's Monthly.*

Grape Vines.

Those vines which need protection should soon be taken down and covered with leaves, straw, or if the drainage is sufficiently good, with earth. The covering need not be thick, as a slight shelter will keep off the frost. Cut away most of the wood you design to have pruned, before covering. If the vines are left exposed, do not prune, as the winter may kill them, so that your pruning would take a different course in the spring. A subscriber who has purchased vines for the Isabella, which turn out to be the pigeon grape, wishes to know how and when to bud. It should be done as soon as the sap starts in spring. Cut an eye about three inches in length, having attached as much wood as you can get with it; at each end of the eye cut off about a quarter of an inch of the upper bark, making the ends very thin. Next cut out neatly a notch in the bark of the vine you wish to bud, and fit in the eye to the place exactly as possible. Bind it about firmly with some soft bandage, as of matting, and clay it, taking care nor to cover the eye. Bind it about with moss and keep it moist until the bud begins to swell. As your vine throws out young shoots, pinch them off above the bud to give it more strength, and after a while keep the branch you have budded entirely pruned down about the bed.—*Jour. of Agriculture.*

Mode and Time of Planting Grape Vines.—Geo. W. Campbell, of Deleware Grape notoriety, makes the following remarks in his circular: I have found little difference in the growth of vines, whether planted in Fall or Spring. When planted in the Fall, and slightly protected during the first winter, an early start, and usually a more vigorous growth may be expected, than from vines transplanted in Spring. A somewhat elevated situation, and a deep, pervious soil, moderately rich, is best. A calcareous clay loam, well underdrained, will produce good, healthy vines and fruit, and if abounding somewhat with gravel or pebbles, so much the better. If lime does not exist naturally in the soil, it should be pretty freely supplied; and if the soil is poor, enrich it with any well decomposed manure at hand. Fresh, or partially decomposed manure induces unhealthy growth, and disposes vines to mildew. Low situations, where water can settle and stagnate about the roots, *will not answer*. Where immediate fruiting of young vines is desired, permit but *one* cane to grow; stop, or pinch off all laterals at one joint from the main stem; keep the vine tied upright, and at the height of four or five feet pinch off the leading shoot. This course will strengthen the lower buds, and often give fruit the year after planting.

Veterinary Department.

(Conducted by A. Smith, V. S.)

Variola Ovina, or Small Pox in Sheep.

This singular disease has broken out in several extensive flocks in the north and west of England, attended by heavy losses, and from the latest accounts considerable anxiety was felt by the flockmasters both of Great Britain and Ireland lest its ravages should extend northward. The following communication of a Veterinary Surgeon in Dublin, published in a recent number of the *Irish Farmer's Gazettee* will be read with interest:

Sir,—This disease, now prevalent in some parts of England, and designated by the French, *Clavelle*, is an acute inflammation of the tegumentary investment of the body, associated with fever of a highly contagious nature. Pathologists divide it into distinct, confluent, natural, and inoculated, the two former referring to the separation or non-separation of the enlargements or papulæ which appear on the skin of the affected animal; the two latter, to the causes of the disease, whether they be that of simple exposure to the affection, natural, or direct introduction of the ovine virus into the system inoculated: of these four varieties, the confluent form is more fatal than the distinct, and the natural than the inoculated.

Many diseases affecting the lower animals are capable of remaining dormant for sometime after their respective poisons have been received into the system. This period, though varying, is technically termed the period of incubation, and is influenced by circumstances of an external nature, such as the temperature of the surrounding air, freedom from or presence of other diseases, temperament of the animal, &c., causes which either hasten or delay the eruption.

Hurtel d'Arboval, in his treatise on the subject, remarks that in warm weather the malady will show itself in ten or twelve days, but remain dormant for double that time when the temperature is low. In experiments conducted at the Royal Veterinary College, London, the period varied from seven to thirteen days. The incubative stage having expired, features characteristic of the malady appear in the form of papulæ or nodules having a florid appearance, deeply inbedded in the skin, generally located on the inner side of the cheeks, arms, and lips, which either coalesce or remain separate, constituting confluent small pox in the former case, distinct in the latter. In about three days the papulæ become converted into vesicles by effusion underneath the outer skin, or dermis, of a transparent fluid. The fluid contains the virus of the ovine pox. The contents of the vesicles become consecutively opaline, turbid, less serous, and ultimately converted into dry, hard crusts which fall and leave depressions of various depths, to be filled up by a process of healing termed granulation. In addition to the local changes just described, the animal gives constitutional evidence of this disease, by separating itself from the flock, mucous discharge from the nostrils, head and ears pendent, eye-lids swollen, with a flow of tears down the face, respiration hurried, pulse quick and indistinct, approaching dissolution.

Although the introduction of sheep pox into Ireland would be a calamity generally to be lamented (difficult to prevent, unless the importation of English sheep be suspended for a time), and one that would most assuredly result in the death of thousands of our sheep, the profession have furnished themselves with a weapon, namely, ovination or inoculation, which in the hands of the scientific veterinarian, has been, and would again be, the means of precluding the natural disease by the artificial, and thus deprive the former of its mortal potency. This practice was proposed by Chabette, in 1762, by Bourgelat, in 1765, by Coste, 1795, and is annually resorted to in France, Austria, Prussia, and Italy. In a treatise by Hurtel d'Arboval it is set forth that of 32,317 inoculated sheep, 32,121 took the artificial disease and only 270 died. In order to test its prophylactic power, 7,697 of the successfully inoculated sheep were exposed to the influence of contagion, and not one suffered a second time; but it is not necessary to travel to the continent for statistical information.

Professor Simonds, in his lectures, states that he found the mortality of the natural disease to be from 50 to 75 and even 90 per cent., whereas the number of deaths attending ovination, when properly performed, averaged five, but rarely reached ten per cent. Yet, much as may be said in favour of the operation, one objection exists. The inoculated and natural disease are equally contagious, hence the absolute necessity, when ovation is practised, of so far isolating the affected animals as to prevent even indirect contact with the healthy.

The most benign case of distinct small pox in the vesicular stage having been selected, the operator chooses a solitary vesicle having clear aqueous contents, and places the point of instrument (which is a kind of needle made for the purpose) barely far enough into the vesicle to moisten the top. This may be preserved for purposes of inoculation for several weeks. If necessary, the operator may at once insert point of same needle between the cuticle, or outer skin, and dermis or true skin, avoiding the production of the smallest drop of blood. Bear in mind that the incision cannot be too minute, and the needle cannot contain too little fluid. The parts operated on are, the under surface of the tail,

which is the most advantageous, inner part of the thighs, postero imperior part of the abdomen, and lateral parts of the sternum. Evidence of successful inoculation will be given in about three days, by a speck, remarkable for the intensity of its redness, which enlarges simultaneously with the increase of inflammation till the eighth day. Tenth shows unbilication of the centre; thirteenth, blanched appearance, due to the elevation of the cuticle from the true skin, and effusion underneath of a transparent fluid; eighteenth, a brown scab, which falls, leaving a chasm to be filled up by a process of reparation, termed granulation. As it sometimes happens that the vesicle of inoculation is the only one which appears, for purposes of ovination the fluid therein contained may be used, and reliance placed on its reproductive potency.

In order to render the virus of sheep pox milder in its constitutional effects, it has been proposed to pass it through the systems of other animals; but all such attempts have signally failed. Sheep pox cannot be transmitted to the ox goat, or human subject, neither shall the small pox of man or the analogous vaccine disease of the cow produce a like affection in the sheep. Purification, however, can be effected by causing it to travel successively through the systems of several sheep; lymph so procured degenerates a disease which goes through its several stages more regularly, renders the constitutional disturbance and local ulceration less; hence the losses are fewer, and the management of the existing disease easier. Having operated on a flock of healthy sheep, they should be divided into several lots, to prevent crowding (which is apt to induce a malignant form of the disease), provided with well ventilated apartments, supplied frequently with fresh water, and allowed good, nitrogenous food. In the majority of instances the foregoing cursory remarks (which are merely intended to convey to the reader a rough notion of the disease in some of its forms) will, I think, be found sufficient, if properly carried out, to ensure more than average success.—Yours, &c., ANDREW GANLY, V S., *Usher's Quay Dublin.*

Transactions.

Prize List, Provincial Exhibition.

The following is the corrected list of the Prizes awarded at the Seventeenth Annual Exhibition of the Agricultural Association, held at Toronto, September 23 to 26, 1862:

CLASS I.—BLOOD HORSES—(31 Entries.)

Judges.—E. Wilmot, Kingston; G. Bennett, Cobourg; Geo. Robson, London; Capt. Tyrwhitt, Bradford.

Best thorough-bred stallion, Thomas Downing, Oshawa, "Young Sir Tatton," $40; 2nd do, Ed. Arkland, Oshawa, "Kennett," $25; 3rd do, Geo Cooper, Toronto, "Highflyer," $12.

Best 3 years old stallion, Thomas Downing, Oshawa, "Imperator," subject to proof of being thorough-bred, $22; 2nd do, Simon P. Dumond, Scarboro, "Wagoner Eclipse," subject to proof of being thorough bred, $14; 3rd do, Geo. G. Grange, Guelph, "Pluto," $7.

Best 2 years old stallion, George Palmer, Guelph, subject to proof of pure breeding, $14.

Best Yearling colt, John Dew, Yorkville, $8; 2nd do, Geo Palmer, Guelph, subject to proof of being pure bred, $6.

Best thorough-bred stallion of any age, Ed. Arkland, Oshawa, Diploma.

Best three years old filly, James White, Bronte, "Annie Laurie," $18; 2nd do, John Dew, Yorkville, $11.

Best 2 years old filly, James White, Bronte, $14.

Best yearling filly, Jas. White, Bronte, $8.

Best mare and foal, or evidence that the foal has been lost, James White, Bronte, $22; 2nd do, John Dew, Yorkville, $14; 3rd do, Geo. Palmer, Guelph, subject to proof of being pure bred, $6.

Extra prize—Thorough-bred mare in foal, James White, Bronte, subject to production of foal, $6.

CLASS II.—AGRICULTURAL HORSES—(113 Entries.)

Judges.—Jacob Young, York, Co. Haldimand; John Bobier, Tyrconnell; Matthew Joness, Darlington.

Best stallion for agricultural purposes, Thos. Gowland, York, Grand River, $40; 2nd do, Hector Scott, Brooklin, $25; 3rd do, George Gowland, Woodbridge, $12.

Best 3 years old stallion, Alexander Burgess, Agincourt, $22; 2nd do, John Hewer, Guelph, $14; 3rd do, James Ferris, Galt, $7.

Best 2 years old stallion, Thomas Teasdale, Grahamsville, $14; 2nd do, G. Higginbottom, Balsam, $10; 3rd do, K. Graham, Belleville, $7.

Best yearling colt, Robert Armstrong, Markham, $8; 2nd do, Richard Power, Columbus, $6; 3rd do, George Alton, Nelson, $4.

Best agricultural stallion any age, Thomas Gowland, York, Grand River, Diploma.

Best 3 years old filly, George Scott, Woburn, $18.

Best 2 years old filly, George Scott, Woburn, $14; 2nd do, Charles Pilkey, Claremont, $9; 3rd do, James Lawrie, Malvern, $4.

Best yearling filly, George Gray, Mayfield, $8; 2nd do, James Nimmo, Clark's Mills, $6.

Best brood mare and foal, or evidence that the foal has been lost, Thomas Gowland, York, Grand River, $22; 2nd do, Robert Beath, Darlington, $14; 3rd do, John Moore, Islington, $6.

Best span matched farm or team horses, John Clark, Brampton, $20; 2nd do, Wm. Elford, jun., township of Darlington, $15; 3rd do, Andrew Allison, Burnhamthorpe, $10.

REMARKS BY JUDGES.—The judges beg leave to remark that the horses exhibited in this class were very superior, and show a great improvement upon former years, more particularly in the two year old stallions. The judges are of opinion that the system of publishing catalogues and placing them in the hands of judges should be dispensed with, and that the judges should not know who the exhibitor is, or where he came from. The judges would also suggest that, were there a second ring to exhibit the horses in it would greatly expedite business, as two sets of judges could then act at the same time.

CLASS III.—ROAD OR CARRIAGE HORSES—(171 Entries.)

Judges.—George Robson, Whitby; Alex. Alcorn, Cobourg; George Taylor, Belleville; Charles DeBlaquiere, Woodstock.

Best roadster or carriage stallion, 4 years old and upwards, James Armstrong, Yarmouth, $40; 2nd do, Robert Stephens, Streetsville, $25; 3rd do, J E. Davis, Richmond Hill, $12.

Best do, 3 years old, John Gibson, Newcastle; 2nd do. J. S. Palmer, Rouge Hill, $14; 3rd do, Marmaduke Laidman, Binbrook, $7.

Best do, 2 years old, Jacob Stong, Yorkville, $14; 2nd do, Thomas Webb, Toronto, $10; 3rd do, Donald Robertson, Queenston, $5.

Best yearling colt, John Colley, Mount Hurst, $8.

Best stallion of any age, James Armstrong, Yarmouth, Dip.

Best French Canadian stallion, James Johnson, Cooksville, $30; 2nd do, John Miller, Castleton, 20; 3rd do, James Fitzsimmons, St. Thomas, $10.

Best 3 years old roadster filly, Thomas Smith, Derry West, $18; 2nd do, John Boulton, Toronto, $11.

Best 2 years old filly, Robert Beith, Darlington, $14; 2nd do, George Cooper, Toronto, $9; 3rd do, A. H. B. Wadsworth, Toronto, $4.

Best yearling filly, James Hugill, Yorkville, $8; 2nd do, John Boulton, Toronto, $6.

Best brood mare and foal, or evidence of foal having been lost, Felix Graham, Belleville, $22; 2nd do, James Preston, Hornby, $14; 3rd do, Simon Shunk, Concord, $6.

Best pair of matched carriage horses, John Nickerson, Middleton, $20; 2nd do, George S. Daintry, Cobourg, $15; 3rd do, John Lindsay, Woodstock, $10.

Best single carriage horse in harness, Henry Lutes, Boston, $10; 2nd do, Donald Cameron, Kleinburg, $8; 3rd do, John Elliott, Duffin's Creek, $6.

Best saddle horse, Hon. J. Ross, Toronto, $10; 2nd do, Hendrie & Co., Hamilton, $8; 3rd do, John Nickerson, Delhi, Norfolk, $6.

EXTRA ENTRIES.

Forest Pony, imported from Scotland, B. A. McDonald, Toronto, $3.

Pair of Ponies, Hiram Anderson, Galt, $4.

A horse exhibited by Mr. Powell, Lewiston, N. Y., "King George," not entered, commended.

REMARK BY JUDGES.—We beg to recommend that in future exhibitions there should be a second ring for the purpose of viewing the horses in. The judging could then be done in a more satisfactory manner, and with a saving of time.

CLASS IV.—HEAVY DRAUGHT HORSES.—(62 Entries.)

Judges.—G. S. Burrill, Brighton; John Dunlop, Woodstock.

Best heavy draught stallion, John Sanderson, Markham, imported from England since last show, $120; 2nd do, Robert Ferris and W. Ritchie, Richmond Hill, $25; 3rd do, Jos. Thompson, Markham, $12.

Best 3 years old stallion, J. Wilson, Oshawa, $22; 2nd do, John Shedden, Toronto, $14.

Best 2 years old stallion, John Sanderson, Markham, imported from England since

show, $42; 2nd do, James McConnachie, Orono, $10; 3rd do, William Jackson, York Mills, $5.

Best yearling colt, John Miller, Brougham, $8; 2nd do, E. Foster, Humber, $6; 3rd do, James Armstrong, Toronto, $4.

Best draught stallion, of any age, John Sanderson, Markham, Diploma.

Best 3 years old filly, J. G. L. Pearson, King, $18; 2nd do, George Miller, Markham, $11; 3rd do, George Scott, Scarboro. $6.

Best 2 years old filly, George Miller, Markham, $14; 2nd do, James Young, Mayfield, $9.

Best brood mare and foal, or evidence that the foal has been lost, John Miller, Brougham, $22; 2nd do, James Nimmo, Kingston, $14; 3rd do, John Wilson, Oshawa, $6.

Best span of draught horses, John Thompson, Whitby, $20; 2nd do, James Lawrie, Scarboro, $15; 3rd do, John Shedden, Toronto, $10.

REMARKS BY JUDGES.—Great delay and consequent inconvenience therefrom was caused by the want of another horse ring, the necessity for which was felt last year, and a recommendation made by the judges to that effect. This season has shown more fully the requirement of such additional ring, as the judges in this class have only been enabled to make their return at this late hour of Thursday at five o'clock. The wrong classing of animals has caused much trouble to the judges, as well as probable losses to the owners; at least the judges in this class had to pass over animals that might have been worthy of prizes if entered in their proper class. But this is a difficulty which must only be remedied by the exhibiters, but the suggestion is offered in the hope that the committee may devise some method to obviate the error for the future.

CLASS A.—HORSES OF ANY BREED.—(51 Entries.)

Judges.—A committee of the judges of all the other classes of horses.

The best stallion of any age or breed, Jas. Armstrong, Yarmouth, Elgin, DIPLOMA AND GOLD MEDAL.

CATTLE.

CLASS V.—DURHAMS.—(142 Entries.)

Judges.—John P. Wheler, Scarboro; John Sules, London; Robert C. Smith, Chinguacousy; E. A. Harland, Guelph; Samuel Dickenson, Port Hope; John Wade, Port Hope.

Best bull 4 years old and upwards, George Miller, Markham, "Prince of Wales," $36; 2nd do, Edward Jones, Thorold, "Robin Hood," $24; 3rd do, James White, Bronte, "Milton," $16; 4th do, F. W. Stone, Guelph, "Third Grand Duke." $8.

Best 3 years old bull, John White, Georgetown, "Halton 2d," $32; 2nd do, Gavin Craig, Grafton, "Comet," $20; 3rd do, D. Robertson, Queenston, "Alfred," $12; 4th do, Simon Shunk, Concord, "Goldfinder," $6.

Best 2 years old bull, John Miller, Brougham, "Canadian Punch," $24; 2nd do, Jas. Kirkland, Indiana, "Robie Burns," $16; 3rd do, Henry Talbot, Everton, "Young Prince of Wales 2d," $9; 4th do, Brodie, Campbell & Co., Jefferson Co., N. Y., "Iron Duke," $5.

Best one year old bull, John Snell, Edmonton, "Baron Solway," $20; 2nd do, Arthur Hetherington, London, "Lord Portman," $12; 3rd do, George Cooper, Toronto, "Young General Havelock," $8; 4th do, Thomas Stock, Waterdown, $4.

Best bull calf (under 1 year old) John Snell, Edmonton, "Robin Hood," $16; 2nd do, John Snell, Edmonton, "Sir Colin," $10; 3rd do, Fred. W. Stone, Guelph, $6; 4th do, Fred. W. Stone, Guelph, $3.

Best bull of any age, George Miller, Markham, "Prince of Wales," Diploma.

Best cow, Samuel Hodgskin, Guelph, "Snowdrop," $20; 2nd do, Arthur Hogge, Guelph, "Mary," $12; 3rd do, Thos Stock, Waterdown, "Betsey," $8; 4th do, John Thomson, Whitby, "Lady of Athelstane," $4.

Best 3 years old cow, F. W. Stone, Guelph, "Isabella 4th," $16; 2nd do, H. P. Welford, Woodstock, "Rufe" $10; 3rd do, Thomas Stock, Waterdown, "Lizzie," $6; 4th do, Henry Jennings, Victoria Square, "Snowdrop," $4.

Best two years old heifer, F. W. Stone, Guelph, "Cambridge 2nd," $12; 2nd do, Jas. Vine, Niagara, "Blossom," $8; 3rd do, Samuel Hodgskin, Guelph, "Meta," $5; 4th do, F. W. Stone, Guelph, "Matchless," $3.

Best yearling heifer, F. W. Storm, Guelph, "Sanspareil 7th," $10; 2nd do, F. W. Stone, Guelph, "Maid of Honor," $6; 3rd do, Henry Jennings, Markham, "Lady Anne," $4; 4th do, F. W. Stone, Guelph, "Duchess of Oxford 2nd," $2.

Best heifer calf under one year, F. W. Stone, Guelph, "Duches of York 2nd," $6;

2nd do, Arthur Hogge, Guelph, $4; 3rd do, F. W. Stone, Guelph, $2; 4th do, John Dew, Yorkville, $1.

Best herd of Durhams, consisting of one bull and five cows or heifers, or cows *and* heifers, of any age, F. W. Stone, Guelph, $40.

CLASS VI.—DEVONS.—(110 Entries.)

Judges.—John Dew, Yorkville; Richard Harper, Whitby; John B. Carpenter, Simcoe, Norfolk.

Best bull, 4 years old and upwards, John Davey, Leskard, "Lord John Russell," $36; 2nd do, Thomas Allen, Whitby, "Devonian," $24; 3rd do, Charles Sefton, Westminster, "Sir Luton," $16; 4th do, E. G. O'Brien, Shanty Bay, Barrie, "Prince of Wales," $8.

Best 3 years old bull, Chris. Courtice, Bowmanville, "Conqueror," $32; 2nd do, Daniel Tye, Wilmot, "Wilmot," $20; 3rd do, Chris. Courtice, Bowmanville, "Duke," $12.

Best 2 years old bull, J. & H. Spencer, Brooklin, "Prince of Wales," $24; 2nd do, John Goodall, Galt, "Napoleon," $16; 3rd do, Daniel Tye, Wilmot, "Lord Elgin," $9; 4th do, John Pincombe, London, "Baby Bull the 3rd," $5.

Best one year old bull, Chris. Courtice, Bowmahville, "Garibaldi," $20; 2nd do, John Pencombe, London, "Samson 4th," $12; 3rd do, Chris. Courtice, Bowmanville, $8; 4th do, Samuel Peters, sen., London, "Wildiar," $4.

Best bull calf, under one year, Chris. Courtice, "Governor," $16; 2nd do, John Pincombe, London, "Baby Bull 6th," $10; 3rd do, C. Courtice, Bowmanville, "Prince Alfred," $6; 4th do, John Pincombe, London, "Eardley Bull," $3.

Best bull of any age, Chris. Courtice, Bowmanville, "Conqueror," Diploma.

Best cow, Chris. Courtice, Bowmanville, "Beauty," $20; 2nd do, Chis. Courtice, Bowmanville, "Stately," $12; 3rd do, John Moore, Islington, "Beauty," $8; 4th do, John Pincombe, London, "Lady Quartley," $4.

Best three years old cow, John Pincombe, London, "Lady Quartley 2nd," $16; 2nd do, John Pincombe, London, "Lady Young Beauty," $10; 3rd do, John Moore, Islington, "Jessie," $6; 4th do, G. Z. Rykert, St. Catharines, "Jessie," $6.

Best 2 years old heifer, H. & J. Spencer, Brooklin, "Princess Royal," $12; 2nd do, John Pincombe, London, "Lady Baker," $8; 3rd do, John Pincombe, London, "Lady Boutcher," $5; 4th do, Chris. Courtice, Bowmanville, "Gay Lass," $3.

Best 1 year old heifer, John Pincombe, London, "Lady Quartley 4th," $10; 2nd do, John Pincombe, London, "Lady Eardley 2nd," $6; 3rd do, D. Tye, Wilmot, "Sophia 5th," $4; 4th do, John Pincombe, London, "Lady Young Beauty 4th," $2.

Best heifer calf, under one year, Chris. Courtice, Bowmanville, $6; 2nd do, Chris. Courtice, Bowmanville, $4; 3rd do, John Moore, Islington, $2; 4th do, Daniel Tye, Wilmot, "Sophia 6th," $1.

Best herd of Devons, consisting of one bull and five cows or heifers, or cows *and* heifers of any age, John Pincombe, London, $40.

The herd exhibited by Chris. Courtice, Bowmanville, highly commended.

CLASS VII.—HEREFORDS.—(32 Entries.)

Judges.—Geo. Murton, Guelph; D. D. Rogers, Kingston; Edward Jones, Stamford; Wm. Gardner, Barrie.

Best bull, 4 years old and upwards, J. R. McMicking, Queenston, $36.

Best 2 years old bull, F. W. Stone, Guelph, "Patriot," $24.

Best 1 year old bull, F. W. Stone, Guelph, "Sailor," imported from England since last show, $60.

Best bull calf (under one year,) F. W. Stone, Guelph, "Guelph," $16; 2nd do, J. R. McMicking, Queenston, $10.

Best bull of any age, J. R. McMicking, Queenston, Diploma.

Best cow, F. W. Stone, Guelph, "Gentle," $20; 2nd do, F. W. Stone, Guelph, "Hebe," $12; 3rd do, J. R. McMicking, Queenston, $8; 4th do, F. W. Stone, Guelph, "Baroness," $4.

Best 3 years old cow, F. W. Stone, Guelph, "Bonny Lass," $16; 2nd do, F. W. Stone, Guelph, "Verbena," $10; 3rd do, F. W. Stone, Guelph, "Princess," $6; 4th do, J. R. McMicking, Queenston, $4.

Best 2 year old heifer, F. W. Stone, Guelph, "Graceful," imported from England since last show, $24; 2nd do, F. W. Stone, Guelph, "Gentle 2nd," $8.

Best 1 year old heifer, F. W. Stone, Guelph, "Wild Rose," imported from England since last show, $20; 2nd do, F. W. Stone, Guelph, "Sweatheart," $6.

Best heifer calf (under one year,) F. W.

Stone, Guelph, "Baroness 2nd," $6 ; 2nd do, F. W. Stone, Guelph, "Necklace," $4 ; 3rd do, J. R. McMicking, Queenston, $2 ; 4th do, F. W. Stone, Guelph, "Gentle 3rd," $1.

Best herd of Herefords, consisting of 1 bull and 5 cows or heifers, or cows *and* heifers, of any age, F. W. Stone, Guelph, $40.

CLASS VIII.—AYRSHIRES.—(100 Entries.)

Judges.—Henry Battell, Grafton; Joseph Rowat, Nilestown ; John Ker, Drummondville.

Best bull 4 years old and upwards, Joseph Boyle, Flamboro, "Norval" $36; 2nd do, R. L. Denison, Toronto, "Lippincott," $24; 3rd do, John Torrance, Scarboro, "Wilton," $16.

Best 3 years old bull, R. L. Denison, Toronto, "Bulrush," $32.

Best 2 year old bull, James Nimmo, Clark's Mills, "Watty 2nd," $24; 2nd do, Brodie, Campbell & Co., Jefferson Co., N. Y. "Dr. Hornbook," $16 ; 3rd do, G. H. Ryland, Picton, $9 ; 4th do, George Scott Woburn, $5.

Best 1 year old bull, P. R. Wright, Cobourg, "Lord Clyde," $20 ; 2nd do, Simon Beattie, Markham, "Carrick Farmer," $12.

Best bull calf under 1 year, P. R. Wright, Cobourg, "Waverley," $20; 2nd do, S. Beattie, Markham, "Roby Burns," $10 ; 3rd do, P. R. Wright, Cobourg, "Garibaldi," $6; 4th do, R. L. Denison, Toronto, "Dover Court," $3.

Best bull of any age, P. R. Wright, Cobourg, "Lord Clyde," Diploma.

Best cow, P. R. Wright, Cobourg, "Peerless," $20; 2nd do, P. R. Wright, Cobourg, "Buttercup," $12; 3rd do J. F. Converse, Jefferson County, N. Y., $8; 4th do, Brodie, Campbell & Co., Jefferson County, N. Y., "Lady Ayr," $4.

Best 3 years old cow, J. P. Wheler, Scarboro, $16 ; 2nd do P. R. Wright, Cobourg, "Mayday," $10 ; 3rd do R. L. Denison, Toronto, "Poppy" $6; 4th do do do "Daisy," $4.

Best two years old heifer, Simon Beattie, Markham, imported from Scotland, 1862, $24; 2nd do P. R. Wright, Cobourg, "Milkmaid 2nd," $8 ; 3rd do Brodie, Campbell & Co., Jefferson County, N. Y. "Nannie," $5; 4th do John Torrance, Scarboro, "Beauty," $3.

Best one year old heifer, John Miller, Brougham, $10 ; 2nd do John Torrance, Scarboro, "Fine Ear," $6; 3rd do Geo Miller, Markham, "Music," $4; 4th do P. R. Wright, Cobourg, "Nora Creina," $2.

Best heifer calf, under one year, Simon Beattie, Markham, "Mountain Maid," imported from Scotland, 1862, $12; 2nd do P. R. Wright, Cobourg, "Bessie Bell," $4 ; 3rd do John Torrance, Scarboro, $2; 4th do R. L. Denison, Toronto, "Miss Neville," $1.

Best herd of Ayrshires, consisting of one bull and five cows or heifers, or cows and heifers of any age, P. R. Wright, Cobourg, $40.

CLASS IX.—GALLOWAY, AND POLLED ANGUS OR ABERDEEN CATTLE—(79 Entries.)

Judges—W. Woods, Hastings; Geo. Bell, Vaughan ; Geo. Roddick, Cobourg.

Best Bull, four years old and upwards, James Graham, Woodbridge, "Black Jock," $36 ; 2nd do, James Nimmo, Clark's Mills. "Prince Albert," $24 ; 3rd do, John Fleming, Vaughan, $16; 4th do James Auld, Hamilton, $6.

Best three years old bull, A. Kyle, Ayr, "Prince Albert," $32 ; 2nd do, E. W. Thomson, Toronto, $20.

Best two years old bull, Geo. Anderson, Varna, $24; 2nd do, G. Z. Rykert, St. Catharines, "Clear Grit," $16; 3rd do, Alex. Kerr, London, $9 ; 4th do, James Summerville, Coleraine, "Black Bob," $5.

Best one year old bull, John McClain, Clover Hill, $20 ; 2nd do, John Snell, Edmonton, "Dred," $12.

Best bull calf, under one year, Jas. Graham, Woodbridge, "McQuhorn," $16 ; 2d do, And. Kyle, Ayr, $10 ; 3rd do, Arthur Mc Neil, Woodbridge, $6; 4th do, John Snell, Edmonton, "Duncan," $3.

Best bull of any age, Jas. Nimmo, Clarke's Mills, "Prince Albert," Diploma.

Best cow, James Nimmo, Clark's Mills, "Lady Favorite," $20; 2nd do, John Fleming, Vaughan, $12; 3rd do, John Snell, Edmonton, "Bonnie," $8 ; 4th do, do, do, "Sall," $4

Best three years old heifer, John Snell, Edmonton, "Blooming Heather," $16 ; 2nd do, Jas. Nimmo, Clark's Mills, "Queen Victoria," $10 ; 3rd do, A. McNeil, Woodbridge, $6 ; 4th do, John Snell, Edmonton, "Lucy," $4.

Best two years old heifer, John Snell, Edmonton, "Blooming Beauty," $12; 2nd do, Jas. Auld, Hamilton, $8 ; 3rd do, John Moore, Islington, $5; 4th do, Geo. Miller, Markham, $3.

Best one-year old heifer, Arthur McNeil, Woodbridge, $10; 2nd do, John Fleming, Vaughan, $6; 3rd do, John Snell, Edmonton, "Lavinia," $4; 4th do, John Fleming, Vaughan, $2.

Best heifer calf, under one year, John Snell, Edmonton, "Pocahontas," $6; 2nd do, James Nimmo, Clark's Mills, "Lady Barnet 3d," $4; 3rd do, John Fleming, Vaughan, $2; 4th do, David Messenger, Cooksville, $1.

Best herd of Galloways and Polled Angus or Aberdeen cattle, consisting of one bull and five cows or heifers, or cows *and* heifers of any age, John Snell, Edmonton, $40.

CLASS X.—THE PRINCE OF WALES PRIZE, AND PRIZES OPEN TO ALL BREEDS OF CATTLE.—(61 Entries.)

Judges.—John P. Wheler, Scarboro; John Stiles, London; E. A. Harland, Guelph; Robt. C. Smith, Brampton; Samuel Dickenson, Port Hope; John Dew, Yorkville; Geo. Roddick, Cobourg; Henry Battell, Grafton.

Best Durham bull, of any age—prize presented by His Royal Highness the Prince of Wales, George Miller, Markham, "Prince of Wales," $60.

For the best bull, of any age or breed, George Miller, Markham, "Prince of Wales," diploma and Silver Medal.

For the best animal in the yard, male or female, George Miller, Markham, Durham Bull "Prince of Wales," diploma and silver medal.

CLASS XI.—GRADE CATTLE.—(64 Entries.)

Judges.—Duncan McVicar, Chatham; Robt. Gibbons, Goderich; Wm. Boynton, Reach.

Best grade cow, Samuel Hodgskin, Guelph, $20; 2d do, Thomas Stock, Waterdown, $12; 3d do, James Bellwood, Newcastle, $8; 4th do, Jacob Lahmer, Maple, $5.

Best three years' old cow, James Bellwood, Newcastle, $16; 2nd do, Thomas Stock, Waterdown, $10; 3rd do, W. R. Forster, Credit, $6; 4th do, James R. Todd, Brampton, $4.

Best two years' old heifer, Arthur Hogge, Guelph, $12; 2nd do, Samuel Hodgskin, Guelph, $8; 3rd do, Albert Parker, Cooksville, $5; 4th do, Samuel Hodgskin, Guelph $3.

Best one year old heifer, John Gill, Grahamsville, $10; 2nd do, do, do, $6; 3rd do, Joseph Capner, Kleinburg, $4; 4th do, John Ross, Toronto, $2.

Best heifer calf, under one year, Geo. Miller, Markham, $6; 2nd do, Arthur Hogge, Guelph, $4; 3rd do, James Bellwood, Newcastle, $2; 4th do, J. R. Todd, Brampton, $1.

THE FERGUS CUP.

Best grade heifer, not more than two years old on March 1, 1862, the produce of a pure bred Durham bull, having a recorded pedigree, and of a cow of any breed, not more than one remove from thorough bred, Prize given by the late Hon. A. Fergusson. Arthur Hogge, Guelph, "Ringlet," SILVER CUP.

CLASS XII.—FAT AND WORKING CATTLE ANY BREED.—(32 Entries.)

Judges.—Robert Kirkwood, Hamilton; Robert Best, Niagara; Henry Andrews, Kingston.

Best fat ox or steer, Jno. Gould, Cooksville, $30; 2nd do, Jas Vine, Lincoln, St. Catharines, $20; 3rd do, Horace Capron, Paris, $12.

Best fat cow or heifer, Jno. Mitchellrie, London, $30; 2nd do, Henry Gould Whitby, $20; 3rd do, W. Donaldson, Woodstock, $12.

Best yoke of working oxen, Jno. Baker, Waterdown, $20; 2nd do, Wm. Armstrong, Markham, $12; 3rd do, Jno. Henry, Yorkville, $8.

SHEEP—LONG WOOLLED.

CLASS XIII.—LEICESTERS.—(228 Entries.)

Judges,—J. R. Ireland, East Flamboro; John Smith, Hamilton; A. Sanderson, Cramahe.

Best ram, two shears and over, William Waites, Gore of Toronto, $16; 2d do, John Robson, London, $10; 3d do, John Snell, Chinguacousy, $5.

Best shearling ram, John Snell, Chinguacousy, $16; 2d do, do, do, $10; 3d do, do, do, $5.

Best ram lamb, George Jackson, Gore of Toronto, $8; 2d do, do, do, $4; 3d do, John Robson, London, $2.

Best 2 ewes, two shears and over, Christopher Walker, London, $16; 2d do, do, do, $12; 3d do, John Snell, Chinguacousy, $6.

Best 2 shearling ewes, Christopher Walker, London, $12; 2d do, John Snell, Chingua-

cousy, $8; 3d do, John Miiler, Pickering, $4.

Best 2 ewe lambs, Christopher Walker, London, $6; 2d do, John Snell, Chinguacousy, $4; 3d do, do, do, $2.

CLASS XIV.—COTSWOLDS.—(62 Entries.)

Judges.—Wm. Caldwell, Trafalgar; John Foott, Port Hope; Thomas Waters, Guelph.

Best ram, two shears and over, F. W. Stone, Guelph, $16; 2d do, do, do, $10; 3d do, do, do, $5.

Best shearling ram, F. W. Stone, Guelph, $16; 2d do, do, do, $10; 3d do, John Snell, Chinguacousy, $5.

Best ram lamb, John Snell, Chinguacousy, $8; 2d, do, do. do, $4; 3d do, do, do, $2.

Best 2 ewes, two shears and over, John Snell Chinguacousy, $16; 2d do, F. W. Stone, Guelph, $12; 3d do, George Miller, Markham, $6.

Best 2 shearling ewes, F. W. Stone, Guelph, $12; 2nd do, do, do, $8; 3d do, Thomas Smith, Toronto Township, $4.

Best 2 ewes lambs, John Snell, Chinguacousy, $6; 2d do, do, do, $4.

CLASS XV.—OTHER LONG WOOLLED SHEEP NOT LEICESTERS, OR COTSWOLDS,— (94 Entries.)

Judges.—James Young, Indiana; Joseph Fennell, Bradford; Henry Jennings, Markham.

Best ram, two shears and over, John Miller, Pickering, $16; 2d do, John Snell, Chinguacousy, $10; 3d do, George Miller, Markham, $5.

Best shearling ram, J. & M. Kerby, Norval, imported from England, 1862, $48; 2d do, John Snell, Chinguacousy, $10; 3d do, do. do, $5.

Best ram lamb, George Miller, Markham, $8; 2nd do, George Jackson, Castlemore, $4; 3d do, do, do, $2.

Best 2 ewes, two shears and over, John Miller, Brougham, $16; 2d do, John Snell, Edmonton, $12; 3d do, John Randall, Paris, $6.

Best 2 shearling ewes, Wm. Jeffery, Whitby, $12; 2d do, John Snell, Edmonton, $8; 3d do, John Long, London, $4.

Best 2 ewe lambs, John Snell, Edmonton, $6; 2d do, George Jackson, Castlemore, $4; 3d do, do, do, $2.

SHEEP—MEDIUM WOOLLED.

CLASS XVI.—SOUTH DOWNS.—(99 Entries.)

Judges.—J. S. Walker, Beamsville; Martin Johnstone, Barrie; James Maxwell, Paris.

Best ram, two shears and over, F. W. Stone, Guelph, $16; 2d do, do, do, $10; 3d do, Jno. Ker, Drummondville, $5.

Best shearling ram, Edward Jones, Thorold, $16; 2d do, Dan Tye, Wilmot, $10; 3d do, F. W. Stone, Guelph, $5.

Best ram lamb, N. & J. Bethell, St. Catharines, $8; 2d do, F. W. Stone, Guelph, $4; 3d do, J. & H. Spencer, Brooklin, $2.

Best 2 ewes, two shears and over, F. W. Stone, Guelph, $16; 2d do, A. & H, Spencer, Brooklin, $12; 3d do, F. W. Stone, Guelph, $6.

Best 2 shearling ewes, N. & J. Bethell, St. Catharines, $12; 2d do, Jno. Ker, Drummodville, $8; 3d do, Edward Jones, Thorold, $4.

Best 2 ewe lambs, F. W. Stone, Guelph $6; 2d do, do, do, $4; 3d do, J. & H. Spencer, Brooklin, $2.

CLASS XVII.—CHEVIOTS.—(19 Entries.)

Judges.—Thomas Newsom, Frankville; Henry S. Losee, Norwich; Thos. Anderson, Napanee; A. Ryle, Paris.

Best ram, two shears and over, Geo. Miller, Markham, $16.

Best shearling ram, David Elliott, West Flamboro, $16; 2nd do, do, do, $10; 3d do, do, do, $5.

Best ram lamb, David Elliott, West Flamboro, $8; 2d do, George Miller Markham, $4; 3d do, do, do, $2.

Best 2 ewes, two shears and over, David Elliott, West Flamboro, $16; 2nd do, George Miller, Markam, $12; 3d do, do, do, $6

Best two shearling ewes, David Elliott, West Flemboro, $12; 2d do, do, do, $8; 3d do, do, do, $4.

Best 2 ewe lambs, David Elliott, West Flamboro, $6; 2nd do, Geo. Miller, Markham, $4; 3d do, do, do, $2.

CLASS XVIII.—OTHER MEDIUM WOOLLED SHEEP, NOT SOUTHDOWNS OR CHEVIOTS.— (46 Entries.)

Judges.—The same as for Class xvii.

Best ram, two shears and over, Geo. Miller, Markham, $16; 2d do, J. & H. Spencer, Brooklin, $10; 3d do, Daniel Tye, Wilmot, $5.

Best shearling ram, J. & H. Spencer, Brooklin, imported from England, 1862, $48; 2d do, Daniel Tye, Wilmot, $10; 3d do, do, do, $5.

Best ram lamb, Geo. Miller, Markam, $8; 2d do, J. & H. Spencer, Brooklin, $4; 3d do, Geo. Miller, Markham, $2.

Best two ewes, two shears and over, J. & H. Spencer, Brooklin, $16; 2d do, Geo. Miller, Markham, $12; E. G. O'Brien, Barrie $6.

Best two shearling ewes, Geo. Miller Markham $12; 2d do, Edward Jones, Thorold, $8;

Best two ewe lambs, Geo. Miller, Markham, $6; 2d do, J. & H. Spencer, Brooklin, $4; 3d do, Geo. Miller, Markam, $2.

SHEEP—FINE WOOLLED,

CLASS XIX.—MERINOES AND SAXONS.—(51 Entries.)

Judges.—James J. Farley, Belleville; Alpheus Snider, Ancaster; Geo. Bateman, Lindsay.

Best ram, two shears and over, Ed. Aarkland, Oshawa, $16; 2d do, Jacob Rymal, Ryckman's Corner, $10; 3d do, F. R. Jennings, Cooksville, $5;

Best shearling ram, Alex. Young, Ryckman's Corners, $16; 2d do, Jacob Rymal, do, do, $10; 3d do, Ed Arland, Oshawa, $5.

Best ram lamb, Ed Arkland, Oshawa, $8; 2d do, David Messenger, Cooksville, $4; 3d do, Alex. Young, Ryckman's Corners, $2.

Best 2 ewes, two shears and over, Ed. Arkland, Oshawa, 16; 2d do, Jacob Rymal, Ryckman's Corners, $12; 3d do, Alex. Young, do, do, $6.

Best two shearling ewes, Geo. W. Miller, Grantham, $12; 2d do, Ed. Arkland, Oshawa, $8; 3d do, Alex. Young, Ryckman's Corners, $4.

Best two ewes lambs, Alex. Young, do, do, $6; 2d do, Jacob Rymal, do, do, $4: 3d do, F. R. Jennings, Cooksville, $2

NOTE BY JUDGES.—The Judges would respectfully suggest that the Spanish and French Merinos be henceforth made separate classes.

CLASS XX.—OTHER FINE WOOLLED SHEEP, NOT MERINOS OR SAXONS.—(11 Entries.)

Judges the same as for Class xix.

REPORT.—The Judges find none entered that they consider come within the description, and have therefore awarded no prizes.

CLASS XXI.—FAT SHEEP.—(24 Entries.)

Judges.—Robert Kirkwood, Hamilton; Robert Best, Niagara, Henry Andrews, Kingston.

Best two fat wethers, John Snell, Edmonton, $12; 2d do, F. R. Jennings, Cooksville, $8; 3d do, do, do, $4.

Best two fat ewes, Christopher Walker London. $12; 2d do, David Rountree, York Township, $8; 3d do John Snell, Edmonton, $4.

PIGS—LARGE BREEDS.

CLASS XXII.—YORKSHIRES.—(45 Etries.)

Judges.—Walter Ker, Stamford; Robert Garbutt, Belleville; Simeon Crysdale, Belleville; A. K. Scholfield, Humbertsone.

Best boar, one year and over, C. A. Jordison, Belleville, $15; 2d do, J. F. Converse Jefferson County, N. Y, $10; 3d do, L. A Sovereign, Paris, $6.

Best boar under one year, C. A. Jordison, Belleville, $10; 2d do, J. P. Wheler, Scarboro, $6; 3d do, C. A. Jordison, Belleville, $4.

Best breeding sow, one year and over, Jas. Ford, Drumquin, Halton, $10; 2d do, J. P. Wheler, Scarboro, $7; 3d do, C. A. Jordison, Belleville, $4.

Best sow, under one year old, J. P. Wheler, Scarboro, imported from England, 1862, $10; 2d do, Brodie & Campbell, Jefferson County, N. Y. $4: 3d do, C. A. Jordison, Belleville, $3.

CLASS XXIII.—LARGE BERKSHIRES.—(18 Entries.)

Judges.—The same as for Class xxii.

Best boar, one year and over, John Davey, Leskard, $15.

Best boar, under one year, James Maines, Brampton, $10; 2d do, John Gibb, Lindsay, $6.

Best breeding sow, one year and over, Geo. Morton, Morton, $10.

Best sow under one year old, James Maines, Brampton, $4; 2d do, Geo. Morton, Morton, $4; 3d do, do, do, $3.

CLASS XXIV.—ALL OTHER LARGE BREEDS. (14 Entries,)

Judges.—The same as for Class xxii.

Best boar, one year and over, Geo. Miller, Markham, $15; 2d do, P. R. Palmer, Thur-

low, $10; 3d do, A. H. Fenwick, Cashel, $6.

Best boar, under one year. P. R. Palmer, Thurlow, $10; 2d do, Geo. Miller, Markham, $6.

Best breeding sow, one yearand over, Geo. Markham $10; 2d do, P. R. Palmer, Thurlow, Miller, $7.

Best sow under one year old, Geo. Miller, Markham, imported from England, 1862, $10; 2d do, Jonas S. Barnes, St. Thomas. $4.

PIGS—SMALL BREEDS.

CLASS XXV.—SUFFOLKS.—(39 Entries.)

Judges.—Malcolm McArthur, Lobo; Duncan Christie, Utica; Alex. Bartlett, Windsor; Wm. Crowder, Morpeth.

Best boar, one year and over, James Maines, Brampton, $15; 2d do, Francis Winter, Cooksville $10; John Dixon, Etobicoke, $6.

Best boar, under one year, James Maines, Brampton, imported from England, 1862, $30; 2d do, Geo. Savage, Burnhamthorpe, $6; 3d do, Henry Battell, Grafton, $4.

Best breeding sow, one year and over, Geo. Savage, Burnhamthorpe, $10; 2d do, Peter Metler, Jr., Pelham, $7; 3d do, John McGlashan, Pelham, $4.

Best sow, under one year old, Geo. Savage, Burnhamthorp, $5; 2d do, Peter Metler, Jr., Pelham, $4; 3d do, Thomas Mills, Albion, $3.

CLASS XXVI.—IMPROVED BERKSHIRES.—(55 Entries.)

Judges.—The same as for Class XXV.

Best boar, 1 year and over, Thomas Penton, Paris, $15; 2d do, David Buchan, do, $10.

Best boar, under 1 year, David Buchan, Paris, $10; 2d do, Jno. Foott, Port Hope, $6; 3d no, Jno. Randall, Paris, $4.

Best breeding sow, 1 year and over, Jno. Ross, Toronto, $10; 2d do, David Buchan, Paris, $7; 3d do, Thos. Penton, do, $4.

Best sow under 1 year old, Jno. Ross, Toronto, $5; 2d do, Thos. Penton, Paris, $4; 3d do, R. L. Denison, Toronto, $3.

CLASS XXVII.—ALL OTHER SMALL BREEDS.—(37 Entries.)

Judges.—The same as for Class XXV.

Best boar, 1 year and over, Jas. Maines, Brampton, imported from England 1862, $45; 2d do, Jno. Ingleson, Toronto, $10; 3d do, James Cowan, Galt, $6.

Best Boar under 1 year, Jas. Maines, Brampton, imported from England, 1862, $30; 2d do, Jas. Cowan, Galt, $6; 3d do, do, do, $4.

Best breeding sow, 1 year and over, Jas. Cowan, Galt, $10; 2d do, Daniel Tye, Wilmot, $7.

Best sow under 1 year old, Rob Dorsey, Summerville, $5; 2d do, do, do, $4; 3d do, Jas. Cowan, Galt, $3.

CLASS XXVIII.—POULTRY.—(250 Entries.)

Judges.—J. D. Humphreys, Toronto; Alex. Kerr, London; Robert Hardinge, Kingston.

Best pair of white dorkings, John Bogue, London, $4; 2d do, S. Peters, senr, London, $2.

Best pair of spangled dorkings, John Bogue, London, $4; 2d do, S. Peters, senr, London, $2.

Best pair of Black Polands, George Scott, Woburn, $4; 2d do, Charles Nourse, Whitby $2.

Best pair of white Polands, no first awarded; 2d do, Jno. Bogue, London, $2.

Best pair of golden Polands, John Bogue, London, $4; 2d do, do, do, $2.

Best pair of silver Polands, John Ker, Drummondville, $4; 2d do, James Metcalf, Eglinton, $2.

Best pair of game fowls, Samuel Baird, Toronto, $4; 2d do S. Peters, senr., London, $2.

Best pair of Jersey blues, S. Peters, London, $4; 2d do, John Bogue, London, $2.

Best pair of Cochin China, Shanghai, Canton, or Bramah Pootra fowls, S. Peters, senr, London, $4; 2d do, John Ker, Drummondville, $2.

Best pair of black Spanish fowls, Jno. Bogue, London, $4; 2d do, Jas. Metcalf, Eglinton, $2; Charles Nourse, Whitby, highly commended.

Best pair of black Java fowls, no first prize awarded; 2d do John Bogue, London, $2.

Pair of Bolton bays, no prize awarded.

Best pair of Bolton grays, John Bogue, London, $4; 2d do, do, do, $2.

Best pair of Hamburg fowls, S. Peters, senr., London, $4; 2d do, G. D. James, Toronto, $2.

Pest pair of Dominique fowls, Philip Armstrong, Toronto, $4; 2d do, John Ker, Drummondville, $2.

Best pair of feather legged bantams, Abel

Wilcox, Richview, $2; 2d do, S. Peters, senr., London, $1.

Best pair of smoothed-legged bantams, S. Peters, London, $2; 2d do, do, do, $1.

Best pair of turkeys, (white) Jno. Ker, Drummondville, $5.

Best pair of turkeys (coloured) Jno. Bogue, London, $4; 2d do, John Ker, Drummondville, $2.

Best pair of wild turkeys, John Bogue, London, $4.

Best pair of large geese, John Bogue, London, $4; 3d do, do, do, $2.

Best pair of Bremen geese, John Bogue, London, $4; 2d do, do, do, $2.

Best pair of Chinese geese, John Ker, Drummondvile, $4.

Best pair of Mucovy ducks, John Ker, Drummondville, $4; 2d do, John Bogue, London, $2.

Best pair of common ducks, John Bogue, London, $4; 2d do, Wm. Forfar, Eilesmere, $2.

Best pair of Aylesbury ducks, S. Peters, London, $4; 2d do, John Bogue, London, $2.

Best pair of Poland ducks, John Bogue, London, $4; 2d do, John Shaw, Toronto, $2.

Best pair of Rouen ducks, S. Peters, senr., London, $4; 2d do, do, do, $2.

Best pair of Guinea fowls, Jno. Ker, Drummondville, $4; 2d do, Jno. Bogue, London, $2.

Best collection of pigeons, Andrew J. Riddell, Toronto, $4; 2d Geo. Hornshaw, Toronto, $2.

Best lot of poultry, in one pen, and owned by the exhibitor, John Bogue, London, $6.

Best collection of poultry in various classes by one exhibitor, John Bogue, London, $8.

Best pair of rabbits, P. C. Abbott, Toronto, $2; Extra prize, Jas. Maines, Brampton, $1.

Best lot of rabbits, P. C. Abbott, Toronto, $4.

THE FERGUS MEDALS.

Best pair (cock and hen) of domestic fowls, any breed, prize by late Hon. Adam Fergusson, Jno. Ker, Drummondville, Silver Medal; 2d do, Chas Nourse, Whitby, Silver Medal.

EXTRA PRIZES.

Frizzled fowls, John Ker, Drummondville, $2.

Wild geese, John Ker, Drummondville, $2.

Gold and silver sea bright bantams, S. Peters, sen, London, $2.

AGRICULTURAL PRODUCTIONS.

CLASS XXIX.—GRAINS, SEEDS, &c.—(460 Entries.)

Judges.—E A. McNaughton, Newcastle; Sheriff Moderwall, Ingersoll; D. Sutherland, Newmarket; J. A. Baker, Paris; John Jarvis, Ingersoll.

The Canada Company's Prize for the best 25 bushels of Fall Wheat, the produce of Canada West, being the growth of the year 1862. Each sample to be of one distinct variety, pure and unmixed, of the best quality for seed, and not to be tested merely by weight. The prize to be awarded to the actual grower only of the wheat, which becomes the property of the Association, for distribution to the County Societies for seed, James Freeman, Hamilton, $100; 2nd do, by the Association, John Mitchell, Mono Mills, $40; 3rd do, John Rose, Glenmorris, $20.

Best two bushels of white winter wheat, Phil. Bartholomew, Ringwood, $10; 2nd do, Seth Heacock, Kettleby, $8; 3rd do, Ben. Johnston, Islington, $6; 4th do, William Jackes, Eglinton, $4,

Best two bushels of red winter wheat, Jas. Trann, Belford, $10; 2nd do, C. W. Thompson, Niagara, $8.

Best two bus els of white spring wheat, Seth, Heacock, Kettleby, $10; 2nd do, John Mitchell, Mono Mills, $8; 3rd do, David Armstrong, Leith, $6; 4th do, Jas. Hanning, Morriston, $4.

Best two bushels red spring wheat, Wm. Westington, Coldsprings, $10; 2nd do, John Mitchell, Mono Mills, $8; 3rd do, John Wood, Bradford, $6; 4th do, Hugh Reid, Owen Sound, $4.

Best two bushels of barley, (two rowed) James Gibson, Ancaster, $6; 2nd do, A. M. D. Lockhart, Stromness, $4; 3rd do, Alex. Gerrie, Dundas, $2; 4th do, John Renton, Carluke, Vol. Transactions.

Best two bushels of barley (6 rowed), Jno. Mitchell, Mono Mills, $6; 2nd do, James Trann, Belford, $4; 3rd do, James Hanning, Morriston, $2; 4th do, Robert Worm, Lippincott, Trans.

Best two bushels of rye, J. D. Lafferty, Hamilton, $6; 2nd do, Alex. Shaw, Toronto, $4; 3rd do, P. R. Palmer, Thurlow, $2; 4th do, Morris Thomas, Mohawk, Trans.

Best two bushels of oats (white) Uriah Young, Bangor, $6; 2nd do, James Gibson, Ancaster, $4; 3rd, do, Phil. Bartholomew,

Ringwood, $2; 4th do, Alex. Gerrie, Dundas, Trans.

Best two bushels of oats (black) Alex. Gerrie, Dundas, $6; 2nd do, Alexander Gerrie, Dundas, $4; 3rd do, John Ross, Toronto, $2.

Best two bushels of field peas, Wm. Forfar, Ellesmere, $6; 2nd do, Samuel Wood, Islington, $4; 3rd do, Thomas Gibson, Middleton, $2; 4th do, Wm. Gordon, Whitby, Trans.

Best two bushels of Marrowfat peas, D. Rowntree, Carleton, $6; 2nd do, James R. Todd, Brampton, $4; 3rd do, Mrs. Harper, Aurora, $2.

Best two bushels of tares, James Story, Whitby, $6: 2nd do, Robert Worm, Lippincott, $4; 3rd do, H. Jennings, Markham, $2; 4th do, Adam Mather, Isungton, Trans.

Best bushel of white field beans, James Preston, Esquesing, $6; 2nd do, Coridon Lewis, Salford, $4; 3rd do, R. C. Gill, Colborne, $2.

Best two bushels Indian Corn in the ear, white, H. J. Brown, Niagara, $6; 2nd do, G. J. Miller, Virgil, $4; 3rd do, Alex. Gerrie, Dundas, $2; 4th do, R. Rispin, London, Trans.

Best two do, yellow, W. A. F. Currie, Niagara, $6; 2nd do, G. J. Miller, Virgil, $4; 3rd do, Alex. Gerrie, Dundas, $2; 4th do, R. L. Denison, Toronto, Trans.

Best bushel of timothy seed, James Gibson, Ancaster, $6; 2nd do, C. Lewis, Salford, $4; 3rd do, H. Girouard, Hamilton, $2; 4th do, H. Jennings, Markham, Trans.

Best bushel of flax seed, P. Bartholomew, Ringwood, $6; 2nd do, W. Benham, Guelph, $4; 3rd do, J. R. Todd, Brampton, $2.

Best bushel mustard seed, G. Girouard, Hamilton, $6.

Best Swedish turnip seed, from Transplanted bulbs, not less than 20 pounds, R. C. Gill, Colborne, $6; 2nd do, James Lawrie, Malvern, $4.

Best 14 lbs. white Belgian field carrot seed, Robert Beith, Darlington, $6; 2nd do, R. C. Gill, Colborne $4.

Best 12 lbs. long red mangel wurzel seed, R. C. Gill, Colborne, $6; 2nd do, H. Girouard, Hamilton, $4.

Best 12 lbs. yellow globe mangel wurzel seed, John Pratt, Cobourg, $6; 2nd do, R. C. Gill, Colborne. $4.

Best bale of hops, not less than 112 pounds, John Russell, London, $20; 2nd do, Alex. Russell, London, $12; 3rd do, John Stephenson, London, $8.

Best bushel of horse or tick beans, W. Jackson, York Mills, $6; 2nd do, John Hogg, York Mills, $3.

Best bushel of buckwheat, Ben Johnston, Islington, $4; 2nd do, P. Bartholomew, Ringwood, $2; 3rd do, P. R. Palmer, Thurlow, Trans.

REMARKS BY JUDGES.—The judges of grains and seeds have pleasure in presenting their report. Upon former occasions much difficulty has arisen from the erroneous classification of various articles in this class, but this year very few instances have been found where these mistakes have been made. Where such were found we took it upon ourselves to set them to rights. In some of the sections we found a great deficiency both in quantity and quality. Considering that one of the objects of the Association is to encourage competition by awarding prizes only to such articles as are worthy of them, we have in one or two instances not awarded any prize on account of the articles not coming up to the standard of quality, but we are happy to say that these are exceptional cases. In other instances we have withheld prizes for want of sufficient quantity to comply with the rules of the Association.

CLASS XXX.—ROOTS AND OTHER HOED FIELD CROPS.—(386 Entries.)

Judges.—John Menzies, Almonte; John Randall, Newmarket; Walter Riddell, Cobourg.

Best bushel of pink-eyed potatoes, John Ross, Toronto, $3; 2nd do, Richard Rispen, London, $2; 3rd do, Adam Mather, Islington, $1.

Best bushel cup potatoes, John McCallum, Beverly, Wentworth, $3; 2nd do, John Ross, Toronto, $2; 3rd do, Robert Worm, Lippincott, $1.

Best bushel garnet Chilis, Wm. Wilson, Islington, York, $3; 2nd do, Robert Worm, Lippincott, $2; 3rd do, James Cowan, Galt, $1.

Best bushel white potatoes, Wm. Burgess, Mimico, $3; 2nd do, Richard Rispin, London, $2; 3rd do, Alex. Gerrie, Dundas, Wentworth, Trans.

Best bushel red do, Trueman McEvers, Cambourn, Northumberland, $3; 2nd do, Alex. Gerrie, Dundas, $2; 3rd do, W. R. Bartlett, Toronto, Trans.

Best bushel blue, Wm. Lea, York Tp. $3;

2nd do, Adam Mather, Islington, $2 ; 3rd do, John Moore, Islington, Trans.

Best bushel of any other sort, Thomas Ironfield, Toronto, $3; 2nd do, Robert Worm, Lippincott, $2 ; 3rd do, Alex. Shaw, Toronto, Trans.

Best collection of field potatoes, a peck of each sort, [named] Joshua Norrish, Eden Mills, Nassagawega, $4 ; 2nd do, Adam Mather, Islington, $3 ; 3rd do, Patrick R. Wright, Cobourg, $2.

Best bushel Swede turnips, Wm. Burgess, Mimico, $3 ; 2nd do, James Leslie, Toronto, $2; 3rd do, Robt. Worm, Lippincott, $1.

Best bushel white globe turnips, Thomas Ironfield, Toronto, $3 ; 2nd do, C. C. Small, Toronto, $2 ; 3rd do, George Vair, Yorkville, Trans.

Best bushel Aberdeen yellow turnips, C.C. Small, Toronto, $3.

Best 20 roots red carrots, Jno. Muir, Scarboro', $3 ; 2nd do, W. R. Bartlett, Toronto, $2 ; 3rd do, Joshua Sisley, Scarboro', $1.

Best 20 roots white or Belgian carrots, W. R. Bartlett, Toronto, $3 ; 2nd do, Jno. Muir, Scarboro', $2 ; 3rd do, James Young, Chester, York, $1.

Best 12 roots mangel wurzel (long red), Robert Worm, Lippincott, $3 ; 2nd do, Wm. Burgess, Mimico, $2 ; 3rd do, Wm. Benham, Guelph, $1.

Best 12 roots red Globe mangel wurzel, Wm Burgess, Mimico, $3 ; 2nd do, E. W. Thomson, Carlton West, $2 ; 3rd do, R. C. Gill, Colborne, Northumberland, Trans.

Best 12 roots yellow Globe mangel wurzel, Wm. Burgess, Mimico, $3 ; 2nd do, Robert Worm, Lippincott, $2 ; 3rd do, John Ross, Toronto, $1.

Best 12 roots long yellow mangel wurzle, W. Burgess, Mimico, $3 ; 3nd do, Wm. Benham, Guelph, $2 ; 3rd do, R. C. Gill, Colborne, Trans.

Best 12 roots of kohl rabi, Richard Guthrie, Toronto, $3 ; 2nd do, T. H. Ince, Toronto, $2 ; 3rd do, Gage J. Miller, Virgil, Lincoln, $1.

Best 12 roots of sugar beet, Wm. Burgess, Mimico, $3 ; 2nd do, R. C. Gill, Colborne, $2 ; 3rd do, Joshua Sisley, Scarboro', $1.

Best 20 roots parsnips, Wm. Burgess, Mimico, $3 ; 2nd do, Wm. Benham, Guelph, $2 ; 3rd do, W. R. Bartlett, Trans.

Best 20 roots chicory, Leonard Pears, Yorkville, $3 ; 2nd do, G. Pears, Toronto, $2; 3rd do, Wm. Burgess, Toronto, Trans.

Best 2 large squashes for cattle, William Wilson, Islington, $3 ; 2nd do, George Morse, Toronto, $2 ; 3d do, Thomas Berney, Yorkville, $1.

Best 2 mammoth field pumpkins, Wm. Lea, York, $3 ; 2nd do, C. C. Small, Toronto $2.

Best 4 common yellow field do. Wm. Lea, York, $3 ; 2nd do, Wm. Wilson, Islington, $2 ; 3rd do, R. L. Denison, Toronto, Trans.

Best 20 lbs of tobacco leaf, growth of Canada West, Edward Lewis, Yorkville, $3; 2nd do, Richard Guthrie, Toronto, $2 ; 3rd do, R. C. Gill, Colborne. Trans.

Best broom corn brush, 28 lbs, Charles W. Thompson, Niagara, $3.

The Canada Company's Prize for Flax.

Best 112 lbs of flax, scutched, Chas. Mitchell, Norval, $24 ; 2nd do, by the Association, do, do, $16 ; 3rd do. do, Jno. Rea, Port Stanley, $8.

Extra Prizes.—F. W. Stone, Guelph, sample of flax in raw state, $1 ; Richard Guthrie, Toronto, tobacco plant, $1 ; George Murray, Yorkville, variety of seedling potatoes, $1 ; John Nicholson, Ashport, York, Basket Willows, $1.

HORTICULTURAL PRODUCTS.

CLASS XXXI.—FRUIT.—(599 Entries.)

Judges,—George Sheppard, Montreal ; Geo. Laing, Hamilton ; John Gray, Toronto ; Wm. Gray, Woodstock.

Best 20 varieties of apples, named, 6 of each, D. W Beadle, St. Catherines, $6 ; 2d do, R. Stibbard, Eglinton, $5 ; 3d do, Ellwanger & Barry, Rochester, N. Y. $4.

Best 12 table apples, named, fall sort, Elias Snider, Eglinton, $4 ; 2d do, Samuel Wood, Islington, $3 ; 3d do, Fred. Geo. Nash, Niagara, $2.

Best 12 table apples, named, winter sort S. J. J. Brown, Niagara, $4 ; 2d do, Robert Warren, Niagara, $3 ; 3d do, Robert Stibbard, Eglinton, $3.

Best 12 baking apples, named, fall, James Lesslie, Toronto, $4; 2d do, John Freed, Hamilton, $3 ; 3d do, J. M. Grover, Colborne, $2.

Best baking apples, winter, S. J. J. Brown, Niagara, $4 ; 2d do, E. C. Fearnside, Hamilton, $3; 3d do, J. M. Hirschfelder, Toronto, $2.

Best 20 varieties of pears, named, three of each, Ellwanger & Barry, Rochester, N. Y. $6 ; do, Bruce & Murray, Hamilton, $6 ; 2d

do, D. W. Beadle, St. Catherines, $5; 3d do, John Freed, Hamilton, $4.

Best 12 table pears, named, fall sort, D. W. Beadle, St. Catherines, $4; 2d do, R. N. Ball, Niagara, $3; 3d do, Bruce & Murry, Hamilton, $2.

Best 12 table pears, named, winter sort, Ellwanger & Barry, Rochester, N. Y., $4; 2d do, Geo. Leslie, Toronto, $3; 3d do, Bruce & Murray, Hamilton, $2.

Best 12 plums, dessert, J. D. Humphreys, Toronto, $3; 2d do, Geo. Tattle, Yorkville, $2; 3d do, Jas. Boulton, Eramosa, $1.

Best 12 baking plums, named, Wm. Benham, Guelph, $3; 2d do, John Brown, Toronto, $2; 3d do, J. Hirschfelder, Toronto, $1.

Best quart of damsons, English, M. C. Nickerson, Port Dover, $3; 2d do, Phillip Armstrong, Toronto, $3; 3d do, Geo. Tattle, Yorkville, $1.

Best 12 peaches, grown in open air, named, John Freed, Hamilton, $3; 2d do, F. G. Nash, Niagara, $2; 3d do, Thos. Daniels, Yorkville, $1.

Best 10 varieties of peaches grown in the open air, 3 of each, John Freed, Hamilton, $4; 2d do, Robert Warren, Niagara, $3; 3d do, Wolverton H. Smith, Grimsby, $2.

Best 12 quinces, W. A. Currie, Niagara, $2; 2d do, H. J. Brown, Niagara, $1 50; 3d do, S. J. J. Brown, Niagara, Trans.

Best 3 bunches of golden or white grapes, grown under glass, Bruce & Murray, Hamilton, $4; 2d do, Samuel Ashby, Toronto, $3; 3d do, Hon. W. Cayley, Toronto, $2.

Best 3 clusters of black grapes, grown under glass, Bruce& Murray, Hamilton, $4; 2nd do, Samuel Ashby, Toronto, $3; 3rd do, Hon. W. Cayley, Toronto, $2.

Best 4 clusters black grapes, grown in open air, W. H. Read, Port Dalhousie, $3; 2nd do, Solomon Hill, Beamsville, $2; 3rd do, Bruce & Murray, Hamilton, $1.

Best 4 clusters white grapes, grown in open air, H. M. Switzer, Palermo, $3; 2nd do, W. H. Read, Port Dalhousie, $2; 3rd do, W. A. F. Currie, Niagara, $1.

Best and heaviest 2 clusters grapes, grown under glass, Samuel Ashby, Toronto, $4; 2nd do, Hon. W. Cayley, Toronto, $3; 3rd do, Charles Arnold, Paris, $2.

Best and heaviest two bunches grapes, open air, W. H. Read, Port Dalhousie, $3.

Best collection of grapes, grown in open air, 2 clusters of each sort, named, W. H. Read, Port Dalhousie, $4; 2nd do, Charles Arnold, Paris, $3; 3rd do, Bruce & Murray, Hamilton, $2.

Best 3 bottles wine, made from the grape, John C. Kilborne, Beamsville, $3; 2nd do, Judge Harrison, Toronto, $2; 3rd do, John C. Kilborne, Beamsville, $1.

Best green flesh melon, J. C. Small, Toronto, $2; 2nd do, W. Burgess, Mimico, $1 50; 3rd do, Chris. Young, Yorkville, $1.

Best water melon, H. Girouard, Hamilton, $2; 2nd do, S. J. J. Brown, Niagara, $1 50; 3rd do, Wolverton & Smith, Grimsby $1.

Best 6 citrons for preserving, Richard Rispin, London, $2; 2nd do, John Hogg, Yorkville, $1 50; 3rd do, R. Stibbard, Eglinton, Transactions.

Best 6 nectarines, Bruce & Murray, Hamilton, $2; 2nd do, Judge Harrison, Toronto, $1 50; 3rd do, R. N. Ball, Niagara, $1.

Best display of fruit, the growth of exhibitor, distinct from other entries, not more than 3 specimens of each sort, George Leslie, Toronto, $9; 2nd do, D. W. Beadle, St. Catherines, $6; 3rd do, Charles Arnold, Paris, $3.

Extra Prizes.—E. C. Fearnside, Hamilton, Siberian crabs, 50c. J. D. Humphreys, Toronto, red currants, 50c; do, do, white currants, 50c; do, do, black currants, 50c; do, do, golden crabs, 50c. W. H. Miller, Toronto, crab apples, 50c. C. F. Bell, Toronto, crab apples, 50c. Hon. H. H. Killally, Toronto, grapes and peaches bearing in pots, 50c. Do. collection of grapes grown under glass, $1. John Gray, Toronto, collection of pears, 50c. Charles Arnold, Paris, collection of plums, 50c. George Tattle, Yorkville, red currants, 5c.

CLASS XXXII.—GARDEN VEGETABLES.—(451 Entries.)

Judges.—Geo. Baxter Kingston; John Beattie, Nichol; Peter C. Servos, Niagara.

Best 12 roots of salsify, Edward Lewis, Yorkville, $2; 2nd do, Geo, Tattle, Yorkville, $1 50; 3rd do, Geo. Vair, Yorkville, $1.

Best 3 heads brocoli, Richard Guthrie, Toronto, $2; 2nd do, do, $1 50; 3d do, Wm. Burgess, Mimico, $1.

Best 3 heads cauliflower, Ed. Lewis, Yorkville, $2; 2nd do, Richard Guthrie, Toronto, $1 50; 3rd do, J. C. Small, Toronto, $1.

Best 2 heads cabbage [summer] James Fleming, Toronto, $2; 2nd do, A. W. Taylor, Hamilton, $1 50; 3rd do, G. Tattle, Yorkville, $1.

Best 3 heads of cabbage (winter). Richard Guthrie, Toronto, $2; 2nd do, Wm. Burgess, Mimico, $1 50; 3rd do, Jas. R. Todd, Brampton, $1.

Best 4 sorts of winter cabbage, including, savoys, 1 of each sort, W. Burgess, Mimico, $3; 2nd do, W. Holden, Yorkville, $2; 3rd do, R. Guthrie, Toronto, $1.

Best 3 heads red Cabbage, A. W. Taylor, Hamilton, $2; 2nd do, W. Burgess, Mimico, $1 50; 3rd do, R. Guthrie, Toronto, $1.

Best 12 carrots for table, long red, Samuel Ashby, Toronto, $2; 2nd do, W. Burgess, Mimico, $1 50; 3rd do W. Benham, Guelph, $1.

Best 12 early horn carrots, J. C. Daniels, Yorkville, $2; 2nd do, James Young, Chester, $1 50; 3rd do, Judge Harrison, Toronto, $1.

Best 12 table parsnips, Alfred Strowger, Guelph, $2; 2nd do, W. Benham, Guelph, $1 50; 3rd do, G. S. Armstrong, Fergus, $1.

Best 6 roots of white celery, James Best, Ashport, $2; 2nd do, W. Daniels, Yorkville, $1 50; 3rd do, G. Tattler, Yorkville, $1.

Best 6 roots red celery, James Wildes, Hamilton, $2; 2nd do, John Nicholson, Ashport, $1 50; 3rd do, W. Daniels, Yorkville, $1.

Best dozen capsicums (ripe), R. C. Gill, Colborne, $2; 2nd do, Judge Harrison, Toronto, $1 50; 3rd do, J. M. Grover, Colborne, $1.

Best collection of capsicums (ripe,) 6 of each sort, A. W. Taylor, Hamilton, $3; 2nd do, C. C. Fearnside, Hamilton, $2; 3rd do, R. C. Gill, Colborne, $1;

Best 3 egg plant fruit, purple, W. A. F. Currie, Niagara, $2; 2nd do, R. Currie, St. Catharines, $1 50; 3rd do, H. Girouard, Hamilton, $1.

Best 12 tomatoes, [red] J. D. Humphreys, Toronto, $2; 2nd do, Rev. Mr. Cox, Brampton, $1 50; 3rd do, Edward Lewis, Yorkville, $1.

Best 12 tomatoes, [yellow] W. R. Bartlett, Toronto, $2; 2nd do, R. Rispin, London, $1 50; 3rd do, H. Girouard, Hamilton, $1.

Best assorted collection of tomatoes, 6 each of large sorts, and 12 each of small sorts, E. C. Fearnside, Hamilton, $3; 2nd do, Thos. Ironfield, Toronto, $2; 3rd do, J. D. Humphreys, Toronto, $1.

Best 12 blood beets, long, Gage J. Miller, Virgil, $2; 2nd do, Sam Ashby, Toronto, $1 50; 3rd do, James Fleming, Toronto, $1.

Best peck of white onions, A. W. Taylor, Hamilton, $2; 2d do, Henry Girouard, Hamilton, $1 50; 3rd do, James Wildes, Hamilton, $1.

Best peck of yellow onions, A. W. Taylor, Hamilton, $2; 2nd do, R. Rispin, London, $1 50; 3rd do, James Wildes, Hamilton, $1;

Best peck of red onions, John Young, Virgil, $2; 2d do, R. Rispin, London, $1 50; 3rd do, James Wildes, Hamilton, $1.

Best 12 white turnips [table] Thomas Ironfield, Toronto, $2; 2nd do, A. W. Taylor, Hamilton, $1 50; 3rd do, George Vair, Toronto, $1.

Best 12 yellow turnips [table] A. W. Taylor, Hamilton. $2; 2nd do. Thomas Ironfield Toronto, $1 50.

Best 12 ears sweet corn, John Young, Virgil, $2; 2nd do, G. J. Miller, Virgil, $1 50; 3rd do, James Durand, Kingston, $1.

Best and greatest variety of potatoes, half peck of each sort, named, Richard Guthrie, Toronto, $3; 2nd do, Samuel Ashby, Toronto, $2; 3rd do, A. W. Taylor, Hamilton, $1.

Best 3 squashes, [table] S. J. J. Brown, Niagara, $2; 2nd do, James Fleming, Toronty, $1 50; 3rd do, R. L. Denison, Toronto, $1.

Best and greatest variety of vegetables, [distinct from other entries] each kind named, George Tattle, Yorkville, $4; 2nd do, A. W. Taylor, Hamilton, $3; 3rd do, James Best, Ashport, $2.

Extra Prizes.—Curled parsley, Wm. Benham, Guelph, 50c. Three kinds of kidney beans, J. D. Humphreys, Toronto, 50c. Dish of Russian peas, and dish of asparagus beans, J. M. Hirschfelder, Toronto, 50c. Asparagus beans, George Tattle, Yorkville, 50c. Variety of dried garden herbs, George Tattle, Yorkville, 50c. Dish of yard beans, long pole, Jas. Best, Ashport, 50c. Dish of green peas, J. D. Humphreys, Toronto, 50c. Brace of cucumbers, Geo. Leslie, Toronto, 50c. Dioscorea batatas, Bruce & Murray, Hamilton, 50c. Dioscorea batatas, Judge Harrison, Toronto, 50c. Half-peck champion of England peas, George Tattle, Yorkville, 50c. Green peppers, J. C. Small, Toronto, 50c. Bassano turnip beet, J. C. Daniels, Yorkville, $1. Best Siberian crabs, Robert Stubbard, Eglinton, 50c. Strawberry tomato in the husk, James Lesslie, township of York, 50c. Collection of gourds, J. D. Humphreys, Toronto, 50c.

(Prize List to be concluded in next number.)

Miscellaneous.

AGRICULTURE AND WOMEN.—An American gentleman who lately visited England was struck by the interest manifested by ladies, including those of the highest rank, in agriculture. One of these, the Duchess of Portland, exhibited perfect familiarity with the minutest details of farm management and work, showing her American guest over the whole of the Duke's large estate, and explaining to him the various processes and methods of cultivation. We could wish that our American ladies would adopt one of the few aristocratic tastes and habits which sit gracefully upon republican women, and which would be of equal advantage to the interests of agriculture and to their own delicate physical organizations. A great deal of cant is uttered in these days about the mission of woman, but whenever we hear an attenuated, dyspeptic female talking in this wise, we feel sure that the daily handling of a broomstick, in a peaceable manner, or the charge of a kitchen garden, would soon put her upon the track most useful for herself and for society. When Rome was young and virtuous, the kitchen garden was always placed under the care of the mother of the family. In Sparta, the women, fit to be the mothers of heroes, cultivated the soil, whilst the men were fighting the battles of their country. Indeed, from the earliest period in the annals of our race, woman has aided by her counsels, and sometimes by her labors, in bringing agriculture to a state of perfection. The laws which Osiris gave to Egypt were not as valuable to that country as those precepts in agriculture, those instructions in embankments, irrigations and drainings, which Isis, his Queen, gave to the Egyptians, and which enabled them to derive so much benefit from the deposits of the Nile. Ceres, deified by the Greeks, made her people acquainted with the use of wheat, and the mode of cultivating it. To the Empress of China we are indebted for the mulberry tree and the rearing of silk worms. Woman of late years has demonstrated her capacity of shining in many spheres once considered the peculiar province of man. Miss HERSCHEL has discovered comets; Mrs. SOMERVILLE laid open the mathematical structure of the universe; some have analyzed the chemical relations of nature in the laboratory, and others investigated the laws of social relations. With such a great amount and variety of power, may we not augur the most beneficial results to agriculture, if the women of our country, by their sympathy, encouragement and co-operation, by their studies and counsels, would prove themselves, as did the women of old, helpmeets to him whom God has ordained to cultivate the earth?—*Baltimore American.*

NATURAL BAROMETER.—The spider, says an eminent naturalist, is almost universally regarded with disgust and abhorrence; yet, after all, it is one of the most interesting, if not the most useful, of the insect tribe. Since the days of Robert Bruce, it has been celebrated as a model of perseverance, while in industry and ingenuity it has no rival among insects. But the most extraordinary fact in the natural history of this insect, is the remarkable presentiment it appears to have of an approaching change in the weather. Barometers, at best, only foretell the state of the weather *with certainty for about* twenty-four hours, and they are very frequently fallible guides, particularly when they point to *settled fair.* But we may be sure that the weather will be fine twelve or fourteen days, when the spider makes the principal threads of its web very long. This insect, which is one of the most economical animals, does not commence a work requiring such a great length of threads, which it draws out of its body, unless the state of the atmosphere indicates with certainty that this great expenditure will not be made in vain. Let the weather be ever so bad, we may conclude with certainty that it will soon change to be settled fair when we see the spider repair the damages which his web has received. It is obvious how important this infallible indication of the state of the weather must be in many instances, particularly to the agriculturist.

A PLEA FOR ROOTS.—A correspondent of the *Rural New Yorker,* thus urges farmers to cultivate roots:—"A few acres of roots for home consumption should be raised on every farm. In behalf of horses, cattle, sheep, and swine, I plead earnestly for roots. Fed as cattle are in winter, with hay and straw only, who, I ask, would not call it dry fodder? A peck of turnips, beets, or carrots fed to each animal would be pleasant to them, and profitable to their owner. *Horses should, by all means, have* carrots. They eat them without cutting, grow fat and sleek. Turnips cut up fine and fed to sheep in spring when they get tired of hay, are of great benefit. Piggy, too, likes roots, though like some other folks he prefers to have them cooked. As a means of promoting the health of stock they are unsurpassed, and at the risk of incurring the displeasure of the M. D.'s, I assert they are far superior to pills or physic. A strong argument in favor of roots is the great quantity that may be grown upon an acre as compared with other crops. True, it is some work to get down on the hands to weed them when small, but then it tends highly to promote that almost extinct virtue, humility. Savages and barbarians live without cultivating the soil; let us resemble them in this respect no longer."

CANARIES.—Rather more than three hundred years ago a ship was partly laden with little green birds captured in the Canary Islands, and having been wrecked near Elba, the birds made their escape, flew to the island, and there settled themselves. Numbers of them were caught by the inhabitants, and on account of their sprightly vivacity and the brilliancy of their voice they soon became great favourites, and rapidly spread over Europe. The original colour of the canary is not the bright yellow with which its feathers are generally tinted, but a kind of dappled olive-green, black, and yellow, either colour predominating according to circumstances. By careful management, however, the bird-fanciers are able to procure canaries of every tint between the three colours, and have instituted a set of rules by which the quality and arrangements of the colouring is reduced to a regular system. Still, the original dappled green is always apt to make its appearance; and even when two light-coloured birds are mated, a green young one is pretty sure to be found in the nest. For my own part, I care little for the artificial varieties produced by the fanciers; and to my mind, an intelligent bird and a good songster is not one whit less attractive because the colours of his plumage are not arranged precisely according to the fanciers' rules.—*Routledge's Natural History.*

DANGER OF CHECKING PERSPIRATION.—A medical journal publishes a severe caution against allowing perspiration to be suddenly checked. All who are condemned to "eat their bread in the sweat of their brows," should give heed to this advice. As one illustration of the evils resulting from the practice which it condemns, the following case, divested of technicalities, may be cited: A Boston merchant having worked pretty hard on board one of his ships on a windy day, found himself exhausted and perspiring freely. He sat down to rest. The cool wind from the sea was delightful, and engaging in conversation, time passed faster than he was aware. In attempting to rise, he could not do so without assistance. He was taken home and put to bed, where he remained for two years, and for a long time could only hobble about on a crutch. Such exposures frequently result in inflammation of the lungs, pneumonia, ending in death in less than a week, or tedious rheumatic affections. Multitudes of lives would be saved every year, if parents would explain to their children the danger which attends cooling off too quickly after exercise, and the importance of not standing still after work or play, remaining exposed to a wind, or sitting at an open window or door, or pulling off any garment, even the hat or bonnet, while in a heat. It should be remembered that a cold never comes without a cause, and that in four times out of five, it is the result of leaving off exercise too suddenly, or remaining still in the wind, or entering while heated a cooler atmosphere than that in which the exercise has been taken.

ONLY A PENNY.—The true secret of frugality is to lay up small savings. Most people never begin to save because they fancy they have not a sum worth saving. Begin with a penny: now, this very day, and every day contrive to save a penny. At the end of the year you will have £1 10s. 5d. This sum would buy some good tools, or a good piece of household furniture, or useful articles of dress, or a number of interesting books; and it would be a pleasure to you every time you looked at what you had bought out of your penny saving. If you choose not to spend it, but to put it into the savings' bank, in five years you would have between £8 and £9, which would be a very valuable sum that might help you in many ways.—*British Workman.*

HOW THE SAVAGES OBTAIN WATER.—Livingston, the African traveler, describes an ingenious method by which the Africans obtain water in the desert.

The women tie a bunch of grass to one end of a reed about two feet long, and insert it in a hole dug as deep as the arm will reach, they ram down the wet sand firmly around it. Applying the mouth to the free end of the reed, they form a vacuum in the grass beneath, in which the water collects, and in a short time rises to the mouth. It will be seen that this simple, but truly philosophical and effectual method might have been applied in many cases in different countries where water was greatly needed to the saving of life.

THE MAGNITUDE OF BRITISH TRADE.—If London held so high a place among the great exchanges of the world in the time of the second Henry, it now far outstrips all other competitors, though the whole of northern Europe has advanced. Hiram of Tyre spurned the gift of Solomon's cities in a consciousness of the grandeur of his own capital, that doubled itself in the blue waters of the Mediterranean: to have his own opinion on the magnitude of London and the extent of its trade would be a fine test of a shrewd and sober thinker for comparison. Carthage and Alexandria sink into the position of mere classic bazaars, if we attempt to estimate them statistically by the data of our own commerce; and Byzantium and Venice must trust to their art for a place in history, now that their commercial boundaries are so far overpassed by that of a city which sends its ships to every sea, and gives new life and hope to peoples rendered imbecile by centuries of superstition and cruelty. In 1860, the import and export trade of Great Britain amounted to no less than the sum of three thousand and seventy-five millions sterling, to the greater part of which the city and port of London, directly or indirectly acted as supercargo, ship's husband, banker, and customer at first hand.—*City Press.*

Receipt for Rhubarb Wine.

Some time since we noticed a sample of Rhubarb Wine, sent us by Mr. C. D Stevens, of La Salle Co., Ill. It was pronounced a very fine article by all who tasted it. Mr. S. gives in his method of making the wine as follows:

"I strip the leaves from the stalks, and crush the latter in a sugar mill, and press them in a press having a three-inch screw. For a 40 gallon barrel I put into a mixing tub 20 gallons of juice, 140 lbs of best brown sugar, and water enough to make 40 gallons. Mix well, and pour into the barrel, leaving the bung open, and keeping the barrel full until it is done working, and then bung tight for six weeks. Then dissolve 4 oz. of isinglass in warm wine, pour it into the barrel and bung tight, leaving it so for a year; then rack off and it is fit for use, but it will be much better at two years, and so on, the older the better. The sample I sent you is one year and eight months old.

I have plants enough this season to make 200 barrels or more. Am making it on shares as follows: any one furnishing sugar sufficient for two barrels, I make the wine and furnish the barrells, (keep it for them if they wish) and deliver them one barrel. If they furnish sugar and barrels for 12 bbl., I return them eight of wine. The wine I sent you, brought me $2 per gallon. I could readily get $3 for it now, if I had it to sell. June is the best time to make this wine."

Wonders of the Deep.—What a beautiful place would be the bed of the ocean, if we could only have an opportunity to contemplate its vastness without fear, and with an opportunity to descend in safety to its profound depths and investigate, with ease, all its mysteries! What a delightful chance, provided the personal safety of the explorer was secured, to spy out the pearly secrets, to gaze on the so-long-hidden gorgeousness of the silent caves and coral palaces, the forests and plains, the mountains and valleys of the submarine world. But the truth is that even if the sea were temporarily exhausted of its billows to accommodate our curiosity, it would be too dangerous in its thick, deep, unctuous bed, for human footsteps, and would be too fatal to life in its rank exhalations to leave us a hope of adding much to our stock of knowledge as to its marvels. The curled, deep-purpled leaves of the sea-lettuce, cover, no doubt, the bed of the ocean, and lie deeply intermixed with the large porous lichens; the many branched hollow algæ, full of life and motion in their rosy little bladders, thickly set with ever-moving arms. Seen from a height, the mass of luxuriant vegetation would present the appearance of a gay carpet brilliantly set off with shining ornaments, for among the leaves we might just catch a glimpse of the showily-painted mollusca; the rainbow-tinted fish; the gigantic angang, the siren of the ancients; the shark, with his leaden eyes; the thick-haired sea-leopard, and the lazy turtle. And what a picture it would be!

Ugly Insects.—[To "G. G.," written on reading his contribution to *The Field*, of April 5, wherein he says "worms, beetles, ants, and other ugly insects."]

"The sage, and the beetle at his feet, have each a ministration to perform."—Tupper.

Oh, term not insects "ugly!"
There never yet was one
Of God's created creatures,
Since earth from chaos sprung,
But that possessed beauty,
Or proved a purpose wise;
So think of him who made them,
And ne'er their form despise.

Ants are endowed with instinct
So wonderfully great,
That men with reason gifted,
Might them their models make,
In various daily matters
Pertaining to this earth;
For industry and foresight
Are traits of sterling worth.

There's beauty in the beetle—
Look at his burnish'd wing;
And usefulness—he clears the ground
Of many a noisome thing.
And so he aids to till the soil:
Thus we should ne'er condemn
His form as "ugly," nor forget
The good he does for men.

The earthworm is not lovely
To look upon, I ween,
But many a serious lesson
We from a worm may glean.
Did we but rightly ponder
That sad yet true decree—
"The worm, she is thy sister,"
How humble we should be!

Then call not insects "ugly,"
For God has made them all:
The huge gigantic white ant,
And ladybird so small.
They all possess some virtue,
Are objects of His love,
Who says that not a sparrow falls
Unknown to God above.

The Caen Society of Agriculture and Commerce, founded in 1762, has just celebrated its hundredth anniversary—a fact which shows that there is more "solidarity" in the French rural character than many persons would be disposed to imagine. The society has especially devoted itself to the improvement of the pure Norman breed of stock, which it has contended

is capable of amelioration *per se*, like all choice races, and it has constantly discouraged the introduction of foreign blood, whatever might be its merit. The amelioration and conservation of the milking qualities of the breed have been particularly kept in view, and the society imposes on its "laureats," or principal prizemen, the condition of keeping prize bulls in the district for six months at least, and cows for a year, in order that the rewards given may not be turned to exportation account, and the stock rewarded lost to the locality.

RULES FOR READING.—Read much, but not many works. For what purpose, with what intent, do we read? We read not for the sake of reading, but we read to the end that we may think. Reading is valuable only as it may supply to us the materials which the mind itself elaborates. As it is not the largest quantity of any kind of food taken into the stomach that conduces to health, but such quantity of such a kind as can be best digested; as it is not the greatest complement of any kind of information that improves the mind, but such a quantity of such kind as determines the intellect to most vigorous energy. The only profitable kind of reading is that in which we are compelled to think, and think intensely; whereas that reading which serves only to dissipate and divert our thoughts, is either positively hurtful, or useful only as an occasional relaxation from severe exertion. But the amount of vigorous thinking is usually in the inverse ratio of multifarious reading. Multifarious reading is agreeable; but as a habit it is, in its way, as destructive to the mental, as dram-drinking is to the bodily health. "Our age," says Herder, "is the reading age;" and he adds, "it would have been better, in my opinion, for the world and for science, if, instead of the multitude of books which now overlay us, we possessed but a few works good and sterling, and which few would, therefore, be more diligently and profoundly studied."—*Sir Wm Hamilton.*

Editorial Notices, &c.

THE WESTMINSTER REVIEW, October, 1862. —BLACKWOOD'S MAGAZINE, October, 1862.

We have received, through Mr. Rowsell, of this city, from Leonard, Scott & Co., New York, the American Edition of the Standard British Periodicals.—The *Westminster* contains its usual quantity and variety of ably written articles. The one on Slave Power will be read with great interest on this side of the Atlantic, at the present critical time. Among the other articles that will attract general attention may be mentioned: Essa and Reviews; Dr. Lushington's Judgme thereon; The British Sea Fisheries; Railway their Cost and Profits; Gibraltar; The Enc clopædia Britannica; The Religious difficultie of India; with the usual elaborate article o Contemporary Literature.

Blackwood is as rich and racy as ever. Th October number contains a continuation o those pleasant serials—Caxtoniana, and th Chronicles of Carlingford; Italy and France with an exceedingly interesting paper to ou reader generally, called Ten days in Richmon —We most strongly recommend these we executed Reprints, belonging to the very high est standard of British Literature, to all tha desire to keep pace with correct thought an opinion on the leading questions of the da at the smallest possible expense. The fou British Quarterlies and Blackwood's Mage zine at $10 a year, must be regarded as miracle of cheapness.

THE ILLUSTRATED ANNUAL REGISTER o Rural Affairs for 1863. Albany, N. Y: Lu ther Tucker and Son.

The ninth annual issue fully sustains th high and useful character of the *Register o Rural Affairs*. It is "got up" in the neatl executed style which characterises the Messr Tucker's publications, and is ably edited b the well known agricultural and horticultur writer, J. J. Thomas. The present numb consists of 130 pages, with 140 well execute engravings, embracing a great variety of su jects connected with the farm, garden an household, and all for the marvelously lo price of 25 cents! The publishers offer mo liberal terms for its introduction in quantiti either to Agents, Agricultural Societies, Nu serymen, Dealers in Implements and Seed or any others who may take an interest in t dissemination of useful reading, and in th promotion of Rural Improvement.—We sh be happy to know that the *Rural Rejist* and also the *Country Gentleman* (weekly), a the *Cultivator* (monthly), are having an increasing circulation throughout the Brit Provinces. They are publications of the hi est reputation.

THE

JOURNAL OF THE BOARD OF ARTS AND MANUFACTURES,

FOR UPPER CANADA,

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Agricultural and Veterinary Instruction.

A CLASS will be formed in Toronto for instruction in the Principles of Agriculture, and the Veterinary Art, specially adapted to the wants of young men engaged in, or intended for agricultural pursuits.—Professor Buckland will be assisted in the department of Scientific Agriculture by the Professors of Chemistry, Geology and Natural History in University College.—Mr. A. Smith, Licenciate of the Edinburgh Veterinary College, and consulting Surgeon to the Board of Agriculture for UPPER CANADA, will have charge of the Veterinary department.

The course will commence on *Wednesday, January 21st*, 1863, and continue for about six weeks. Three Lectures a day, and *no fees*.—The subjects treated of will comprise:—

The History, Breeding, Diseases, and Treatment of Farm Animals,—including their Anatomy and Physiology, with a course of instruction in Practical Dissecting.

Agriculture in its relations to Chemistry, Geology, Mechanics, Physical Geology and Meteorology, Botany and Zoology, including Farm Architecture and Engineering, the valuation and management of Landed Property, with special reference to Canada.

Pupils may enter and leave the Class without being subjected to an *examination*. But with a view of promoting Emulation the Board of Agriculture offer the following Prizes, the value to be given in suitable books:—First, $20 to the Student who shall pass the best Examination in all the subjects at the end of the term Second, $15; Third, $10; and Fourth, $5.

Further particulars may be known by applying either personally or by letter to Professor Buckland, University College.

Toronto, Nov., 1862.

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