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The Field.

Pure Seed.

The importance of using only the choicest seed, the best of its kind and free from admixture, is universally acknowledged, though unfortunately not always so carefully carried into practice as it should be, and a stricter attention to a matter of so much consequence should be urged upon farmers generally.

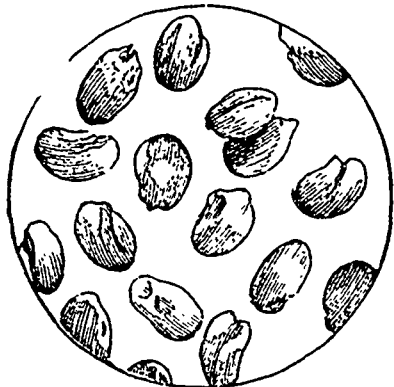


FIG. 1.

few persons now would employ small tubers to secure the best return from a potato crop. Yet the analogy between these tubers and ordinary seed is not exact; for it is in the eyes or buds that we should look for a closer resemblance, and here it must be acknowledged that the most vigorous buds will produce the most promising and thriving plants. Accordingly, it is that end of the tuber in which the

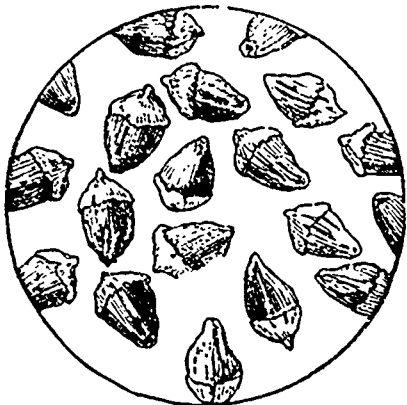


FIG. 2.

larger and more fully developed buds are congregated that all judicious planters use, and in dividing the root, take care so to perform the operation as to secure one or more of these buds in each set. This necessary care in the selection of seed is more easily

and more frequently attended to in the case of the larger cereals. In planting Indian corn, the practical farmer early makes choice of the largest and finest ears, if he does not even set apart a piece of ground for the express purpose of raising seed, and bestows on this particular care in cultivation. Then, having secured the best ears, he even rejects from these all but the completely developed kernels, throwing aside those at the base and top of the cob. In wheat, again, the staple of Canadian agriculture, the greatest pains are taken to clean the grain and remove all small seeds of imperfect wheat or weeds, or foreign grain. But there is another class of seeds, in which, though the same care is called for, it is not quite so readily applied. In the case of the smaller seeds of turnips, clover, and the grasses, the minuteness of the grain renders their examination and the detection of imperfection or impurities not quite so easy. Yet the matter is not, after all, attended with any very great difficulty. In regard to turnips, it may be alleged that when so large a proportion of the plants that come up have to be destroyed in the process of singling, it is of no great consequence if a little adulteration is practised. Without admitting such a plea for careless husbandry, it may be granted that in fact there is less adulteration in the case of turnips than many other small seeds. It is the practice of seedsmen, and farmers would do well to follow the example, to test their seeds by counting out a definite number, say a hundred, and planting them; then noticing, after a sufficient interval, how many have sprouted. This will show at least the vitality of the seeds. But to detect adulteration in the case of the smaller seeds of grass and clover, some artificial aid to the sight is employed with advantage, and a good magnifying glass, or even a microscope, will be found of especial service.

In reference to this subject, an interesting article appeared recently in the *Farmer* (Scottish), from which we copy the following extract and the accompanying illustrations.

Premising that farmers are apt enough in judging of the minute differences in the appearance of the cereal grains, the writer of the article alluded to says: "It may be safely concluded, that in order to acquire an equally discriminating acquaintance with the smaller seeds, they have only to accustom themselves to the use of the microscope, with which to magnify the smallest seeds to at least the sizes of wheat, oats, barley, beans, or others which they are accustomed to handle. Many look upon the use of the microscope as a mysterious and difficult operation, requiring far too much time, application and bother, for their having anything to do with it; but they have only to give it a fair trial in order to discover their mistake, disabuse themselves of all such absurd notions, and find, on the contrary, that it is in the highest degree interesting, instructive, and useful, and even as an occasional treat to the young,

its wonders will, in their estimation, vie with, if not surpass, those of the magic lantern, the kaleidoscope, and the wheel of life, while they will have a more potent influence in providing an after taste for intellectual and useful research. Many of the smaller seeds which, to the unaided eye, seem very much alike, yet present remarkably diversified, and often very beautiful appearances when viewed through a microscope of only ordinary power, and when one is accustomed so to look at them, the transition is easy to the investigation of the wide fields for micros-

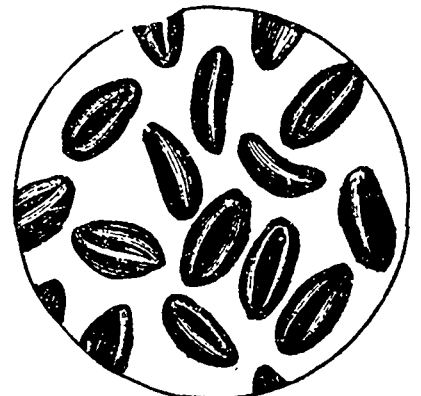


FIG. 3.

copic observation which are embraced within the animal, vegetable, and mineral kingdoms.

Mixing, colouring, and killing, are all skillfully perpetrated in adulterating seeds; and all these arts, however artistically they may have been applied, are more or less capable of being detected by the microscope. Thus, with clovers and grass seeds, none are so exactly alike but that a difference can be

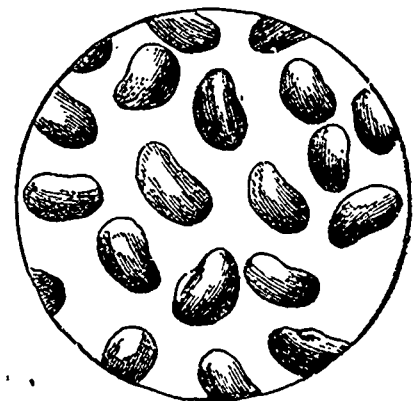


FIG. 4.

observed by a skilful microscopist, and most of the injurious or worthless kinds employed in mixing are so dissimilar that their detection is comparatively easy. This is not the case, however, with seeds of the varieties of turnips and other brassica, although

those of the different genera, such as common or rough-leaved turnip, Swedish turnip, rape, and even of some of their individual varieties, possess sufficient distinctive characteristics to enable a careful observer to find out whether or not they are mixed. The art of colouring has in the case of clover seed attained to great perfection, yet careful and repeated observation of the position and shading of the natural colours in the genuine seeds will serve to show the difference between them and the best examples of artificial colouring; which last is not nearly so applicable to grass and turnip seeds, but the sulphur smoking of the former, and the oil-dressing of the latter, serve to impart a freshness of appearance which the seeds do not actually possess.

Killing is generally done by oven-heating (sub-roasting), or want of vitality may arise from extreme age in the seeds; in either case the seeds will appear dry when bruised, which is peculiarly marked in turnip, rape, and other oleaginous seeds, from the comparative dryness or absence of oil which they exhibit when crushed. Most people are familiar with the difference between fresh and roasted peas, and a similar difference in appearance is presented, under the microscope, between fresh and roasted small seeds.

For further illustrating some of the preceding results we are enabled, through the kindness of Mr. James Bryson, optician, Edinburgh, to give the four accompanying engravings from magnified photographs, prepared by him, the first three of which are from a sample of what, in market phrase, was termed "good red clover seed," and the fourth from another of good yellow clover, medick, or trefoil seed.

No. 1 shows really good plump seeds of red clover in different positions, when magnified by only a good pocket microscope. It is usually of a shaded purplish and yellowish colour, some of the seeds being entirely yellow; and at the Great Exhibition of 1862 there was a Norwegian sample similar in colour to No. 4; although the form of the seeds showed that they belonged to the true red clover—*Trifolium pratense*—some of our native wild varieties of which have also yellow seeds.

No. 2 represents imperfectly ripened seeds of red clover, enclosed in their still adhering husks. These as shown in the engraving, resemble small acorns with their cups attached; and in sample, they are so unlike the seeds of any of our field weeds that many have taken them for those of the dodder, the pest of Dutch clover fields. In the sample from whence they were taken these were present in about the proportion of six per cent.

No. 3 exhibits different views of the rib-grass, common ribwort, or plantain seed—*Plantago lanceolata*—magnified on the same scale as the others. This was present in the sample to about thirteen per cent.; and, being of comparatively little value, it is too generally introduced among clover seeds for the purpose of adding a "paying per-centage" to the dealer's profits. It is, however, well known by its deep brown colour, somewhat shining appearance, and different shape to that of the clover seed, and being easily distinguished by the naked eye, those who purchase it from sample have themselves to blame.

No. 4. Yellow clover seed—*Medicago lupulina*—is of a uniform sulphury yellow colour, and more regular kidney-bean-like shape than the red clover seed, from which it also differs in possessing a distinct peculiarity of smell. None of this seed appeared in the sample from whence the preceding three were selected, although it is more employed than any other for adulterating red clover seed, both in its natural state, and when "improved" by colouring.

While fraudulent dealers have everything to lose, the fair dealer has nothing to fear, but much to gain from microscopic or other investigation; for how often do we see careless cultivators blame the seedmen for sending them a mixture of weed seeds, when the fault of weed growth was entirely their own.

Agriculture.—Its Advantages.

To the Editor of THE CANADA FARMER:

SIR, I propose to set down briefly some of the leading advantages and disadvantages of Agriculture, as a pursuit, and for the present shall consider the first of these topics. Agriculture is the art or science of cultivating the earth. Its object is to develop from the soil as large a quantity of vegetable products, and indirectly of animal products, as possible. *It conduces to health.* With what different feelings do the merchant and farmer leave their pillows in the morning; the one, cheerful with good health and buoyant spirits, goes forth to his labours at the dawn of day, greeted by the music of the feathered songsters, breathing the pure, fresh air, sweetly scented by the odour of the flowers, the other, perhaps after a sleepless night, walks in a thoughtful mood to his counting house, probably anticipating the insolvency of his customers, or the ill success of a voyage. How many an invalid that has seen the ploughboy on his way to his work in the morning, whistling as he goes, has wished for a pastoral life. The evidence of statistics show that the agricultural population live to a greater age than any other. *Agriculture secures ordinary wealth.* No other occupation or profession can furnish from its own means the supplies for all our necessary wants. Food, raiment, and many luxuries, are among the fruits of the farmer's cares and labour. Although the farmer may not become so wealthy as some of our merchant princes, yet take the whole class of merchants with all the farmers, and the average wealth of the latter class, if it does not absolutely surpass, will compare favourably with the former. Not only does it secure individual, but also national wealth.

It promotes morality.—It tends to preserve the morals and raise the heart to Him who giveth seedtime and harvest. This was man's original occupation, and even now, the missionary tries, after proclaiming the gospel to the heathen, to induce them to cultivate the soil, as the best method of keeping them good Christians, and civilizing the remainder of the tribe.

It tends to independence.—With what honest pride the farmer can look over his golden fields, his richly laden orchards and growing flocks, with the happy assurance that his substance is increasing from year to year, and that he himself is far above want. The manufacturer or merchant often fails, although he may give his whole time and attention to his business, for the fault does not always lie in himself, but probably in some foreign market, or in the insolvency of some of his hitherto good customers. But what has the intelligent and industrious farmer to fear? His funds are invested in solid ground; he depends on no earthly guarantee, but on the All-wise Being, the giver of every good and perfect gift. Society is divided into the producers and non-producers. To the former class the farmer belongs, while the latter class have to depend upon the producers; hence we often hear the merchants and mechanics wishing for a good crop, and have nearly as much anxiety about the harvest as the farmer himself, they must depend to no small extent on the farmer for what they eat and wear.

The pursuit of Agriculture gives scope for intellectual pursuits. There is no business that demands such extensive knowledge. The farmer has to deal with the works of nature, learn the different characteristics of the earth, the air, and the seasons. He must know something of vegetable and animal physiology, entomology, etc. Besides, he must understand mercantile business. If in the future the farmers of Canada wish to be successful, they must pay more attention to agricultural education.

It is pleasant.—There is no other occupation or profession so useful, so honourable, so healthy, so happy, and so independent. Surely such an occupation must be gratifying. The pleasures of rural nature are consistent with every period of our lives. Why, then, it may be asked, has agriculture been so distasteful to farmers' sons? The hard manual labour which many of the farmers have had to endure, and the little education which they possessed, may have hindered some from engaging in this pleasant occupation. But times are changing. Animal labour is being substituted for manual, and more recently,

the natural and mechanical powers for animal labour. The use also of agricultural chemistry is coming more into vogue. These are sure indications of the progress of agriculture. The intellectual labour of the farmer is increasing, while the manual is decreasing. Science and art are rapidly multiplying his appliances and elevating his calling. "Agriculture," says a recent writer, "is an art,—Man is the artist; the soil his laboratory, manure his raw material, animal strength and machinery his power; air, heat and moisture his agents; and grains, roots, fruits and forage his products."

CULTIVATEUR.

York Township.

How to Enlarge our Crops

To the Editor of THE CANADA FARMER:

SIR,—The following extract from a speech of Mr. Mechi, at Birmingham, deserves our thoughtful attention:—

"Keeping the crops free of weeds is, I know practically, one of the best and cheapest methods of enlarging our crops. The last saving a farmer should resort to is that of hand or horse-hoeing. The neglect in this matter is painfully obvious, and robs the country of millions annually. Don't tell me of sowing thick to smother the weeds. The cultivation is worth the money irrespective of weeds. I always horse-hoe my wheat, beans and peas, once or twice with Garrett's horse-hoe (at about one shilling sterling per acre), and hand-hoe twice or even three times, at a cost of about seven shillings and six pence or ten shillings per acre. Women afterwards hand-pick any weeds that have escaped the hoes. We know by the leaves of our flowers when there is anything wrong below, so it is with our field crops, and as I came here by rail, certain bilious-looking crops indicated an uncomfortable state of their roots, owing to the want of drainage or food in the subsoil, or in consequence of weedy competition."

The above teaches an important practical lesson worthy of being learned and remembered by every farmer in Canada. We cannot of course employ hand-labour here as they can in the old country, but we may do more to secure clean cultivation than we generally do. The implement named by Mr. Mechi—"Garret's horse-hoe"—is perhaps known to you. Are you aware which of our cultivators or horse-hoes most nearly resemble it?

I have thought an implement is wanted specially to cultivate and keep clean the borders of our fields close up to the fences, as there the weeds are apt to accumulate. Perhaps some of our artisans connected with the manufacture of agricultural implements may devise some addition to the ordinary plough to fit it for such a purpose.

A FRIEND TO IMPROVEMENT.

Township of York, 31st Aug., 1868.

Refuse from Flax Mills.

To the Editor of THE CANADA FARMER.

SIR,—In your last number a subscriber asks:—"What is the best manner of utilizing the waste from flax mills for agricultural purposes; whether it should be rotted, and if so, what is the readiest and quickest mode of effecting this object?"

I take it for granted that by flax mills your correspondent means mills for scutching flax, and by the waste, what is commonly known as the *shives* of flax. If the mill is worked by steam, the best manner of utilizing this waste is to use it as fuel in generating steam; but if the mill is worked by water, then the waste should be used as manure. Now, it is a well known fact that the most substantial manures, if they are not well rotted, produce a less active effect on the growth of plants than the simplest fertilizers which have been reduced to a state of extreme division.

Then as to the readiest and quickest, and the least expensive mode of effecting this object, he should make a compost of the waste with horse-dung &c., turning it before it matures too much, and if necessary, watering it with liquid manure.

A. K.

Toronto, 7th Sept. 1868.

Muck for Hops.

To the Editor of THE CANADA FARMER:

SIR,—I herewith send you a sample of stuff that I have commenced taking from a beaver meadow, for manure, composed of wild grass, sod muck, and a white composition which I suppose is marl. Will you please say, through the CANADA FARMER, what you think of the sample sent as a manure for hops planted on sandy loam; and how should it be proportioned and prepared?

JAMES MATTHEWS.

Acton, Sept. 5, 1868.

NOTE BY ED. C. F.—From the appearance of the specimen alluded to in the foregoing communication we should think the material admirably adapted for the purpose to which our correspondent is applying it, and, indeed, the soil which he describes, enriched with such manure, could hardly be surpassed for hop growing. The white substance is shell marl, and furnishing carbonate of lime would be a valuable addition to the vegetable manure. We believe the best way to use it would be to compost it with barn yard manure, turning the heap once or twice, and taking care to cover from the leaching effect of rains. The manure should be applied in the spring, liberally; of course it would not be lost if applied this fall. For fuller directions as to the method of applying it we refer our correspondent to the number of the CANADA FARMER for May 1, 1867. We trust his energy and industry will be amply rewarded.

ARTIFICIAL HARVESTING.—A process of artificially drying and curing hay and sheaves of grain in wet seasons has been brought before the notice of British agriculturists, by Mr. Gibbs, in a prize essay. The process, which Mr. Gibbs has subjected to the test of actual experiment, consists in passing the hay or sheaves to be dried through a shed supplied by a furnace and fanney with a continuous current of hot air. The method is endorsed by the approval of some of the best agriculturists in the kingdom.

Stock Department.

Animal Heat.

It is common to speak of animals as either warm-blooded or cold-blooded, yet the true distinction is scarcely accurately indicated by the expression; for there are circumstances in which the so-called cold-blooded animal would be warmer than one of the other class. The difference between the two consists in the power which the first possesses of maintaining a uniform temperature under all ordinary external conditions, while the temperature of the other class of animals rises or falls with that of the atmosphere or medium in which they are placed. Among vertebrate animals, mammalia and birds constitute the warm-blooded order, and fishes and reptiles the cold-blooded. The temperature of the blood and internal parts of the body, in the first, ranges from 98° to 111°, being in the mammalia from 98 to 106°, and amongst birds from 107° to 111°. In man and the domestic animals, the ordinary temperature of the body is about 98°; and this temperature is maintained with wonderful uniformity under great extremes of external condition, varying very slightly through all the range of climate from the Arctic to the Torrid zone. With the aid of clothing, indeed, and the addition of suitable diet, man can maintain his normal temperature, and adapt himself to the condition of the external atmosphere through a range of over two hundred degrees, Fahrenheit. It is proposed in the present article to explain very briefly how this uniform temperature is secured.

The main source of animal heat is respiration. So large a share, indeed, does this function perform in maintaining the temperature of the living body, that

we may confine our attention to it alone, and leave out of consideration, for the present, the nervous influence and other subordinate agencies in this important vital operation. In explaining the process of respiration in a former article, it was stated that the oxygen of the air was absorbed into the blood with each act of inspiration, was then conveyed by the circulation to every part of the body, and uniting with carbon, formed carbonic acid. The carbon employed to effect this combination is found partly in the blood itself, but is chiefly derived from the waste portions of the various tissues disintegrated and decomposed in the constant processes of change going on through life. We are all familiar with the phenomenon of the rapid production of heat by the chemical combination of these two elements, oxygen and carbon. Almost every instance of combustion exemplifies it. Carbon and hydrogen are the principal elements of nearly all combustible substances, and the act of combustion is the rapid union of these elements with oxygen, resulting in the formation of carbonic acid (oxygen and carbon) and water (oxygen and hydrogen). The degree of heat evolved in this combination is definite, and can be measured and calculated; and it matters not whether the combination takes place rapidly, producing combustion, or more gradually, as in oxidation, the amount of heat evolved in the union of given quantities of these elements is the same. Now the amount of carbon thrown off by an adult man, in the form of carbonic acid, in respiration, is, under ordinary circumstances, as much as eight ounces in the course of twenty-four hours. Were we to burn this quantity of carbon or charcoal, we should, in a very few moments, produce an intense amount of heat. Precisely the same amount of heat would be extricated within the body during the course of twenty-four hours by the slower chemical combination of the quantity of carbon specified with the oxygen of the air. We are not very far from exact, then, in stating that we maintain the temperature of the body by consuming a certain amount of fuel. How, it will next be asked, is this fuel supplied? We have said it is obtained from the blood and the waste of the tissues. In either case, the supply is obtained from the food we take. This then is the ultimate source of animal heat.

In illustration and evidence of the foregoing view, which is now generally admitted among physiologists, we may notice certain well-known facts, and deduce some important practical lessons. The relation of animal heat to respiration is seen in the constant correspondence of the temperature of the body with the quickness or amount of breathing. Thus, those animals that breathe quickest, taking in the largest amount of oxygen, and parting with the most carbonic acid in a given time, have the highest temperature. Birds, whose breathing is quicker, have a higher temperature than mammalia. Again, the temperature of any animal sinks, if its breathing is reduced in force or frequency. Thus, during sleep, when the respiration is slower than during the waking state, the warmth of the body sinks in proportion. Exercise, which quickens the breathing, raises the temperature of the body. In the state of complete hibernation, the breathing becomes remarkably slow and almost ceases, and we find the temperature of animals in this state sinking almost down to the freezing point.

There is another very important point in which this subject should be considered. The ultimate office of a large proportion of the food we take is to keep up the heat of the body, and we find a close correspondence between the amount and the kind of food we require and the temperature of the atmosphere at the time. In cold climates and seasons we consume far more food than in warmer regions or periods of the year. We relish and require, too, a much more oily and richer diet in cold weather than in hot. These facts, which are so obvious in our own case, should be borne in mind in our treatment of animals under our care; and especially should we remember that an animal exposed to cold will consume, for the mere object of keeping up its heat, without deriving a particle of nourishment, in the ordinary sense of the term, a much larger amount of food than one which is sheltered from the severity of the weather. Economy, therefore, to say nothing of humanity, requires that we should house all farm stock during the winter, or at least that we should afford them

adequate shelter, and keep them as warm as is compatible with their natural habits and health.

When the temperature of the surrounding atmosphere rises above the proper standard of blood heat, the requisite balance is maintained chiefly by the perspiration of the skin. The moisture exuding in this way from the body reduces the temperature by the cooling influence of evaporation.

Veterinary Department.

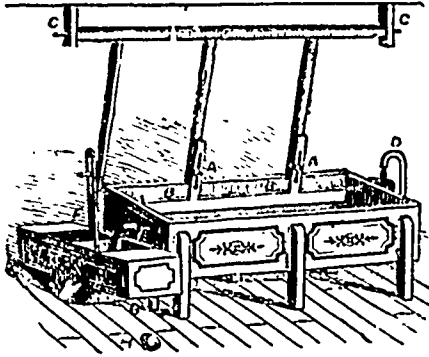
Injury and Disease of the Horse's Foot.

PUNCTURED FOOT, PRICKS, &c., form a very common class of injuries, and may result from various causes, as picking up a nail in travelling, or from pieces of glass or other sharp substance entering the sole or frog and penetrating to the sensitive parts. The danger to be apprehended from these injuries greatly depends on the situation of the puncture and the direction it takes. If it be in close proximity to the joint, violent inflammation may be set up in that part, which is attended with very serious consequences; or the joint may be actually punctured, allowing the synovia to escape. This injury is attended with great constitutional disturbance, the horse being in a high fever. The symptoms vary according to the situation of the injury. The horse is observed to go suddenly lame, and the lameness to gradually increase. When the hind foot is the seat of the ailment, he moves with a long step and brings the foot cautiously to the ground; when standing, the fetlock joint will knuckle forward, and the heel is hot. Occasionally the lymphatics on the inside of the leg become inflamed and the swelling will extend as far as the hock and groin. These are the symptoms presented when the offending agent has not been removed, or when suppuration has taken place as the result of the injury; therefore we cannot advise too strongly a careful examination of the foot in cases of sudden lameness where there is no visible injury. The shoe should be removed, and the sole carefully examined with the draw-knife, and any foreign body removed. The sole should be well pared in the vicinity of the wound, and if the puncture is deep, it is advisable to thin the sole all around. The foot may then be placed for half an hour in a bucket of warm water, and afterwards a poultice applied, either of linseed meal or bran; when heat and tenderness are removed, then the shoe may be applied, and it is generally safe to use a stopping of tar and tow.

Thrush or Frush is a disease often met with, and consists in a muco-purulent discharge from the cleft of the frog; the discharge is somewhat sticky and has a very fetid odour, and is the result of a diseased condition of the sensitive frog, giving rise to an abnormal secretion which escapes from between the clefts of the frog. Thrush is oftenest found in the hind feet, and it may be produced by a variety of causes. It is occasionally a sequel to chronic diseases of the foot, as of navicular disease, and of laminitis, and is therefore frequently found occurring in the fore feet from that cause. In the hind feet it is usually produced from standing in damp, dirty stables, especially where the moisture is of an acrid nature, caused from the decomposition of the urine, &c. Horses in high condition, and more particularly such as are of a plethoric constitution, are very liable to thrush, as also to swelled legs, grease, &c. It is also most prevalent in the Spring and Fall months. In the treatment of this disease cleanliness is of the greatest benefit, indeed, without keeping the parts thoroughly cleansed, medical treatment is of little use. The affected parts should be well washed, and if the horn of the frog is detached and diseased the knife must be freely used, to cut away all detached and diseased parts, and also to allow the parts to be thoroughly dressed. An excellent application is the chloride of zinc, well diluted, which should be pressed in with a little tow and then covered up with tar. In mild cases a solution of sulphate of zinc, or sulphate of copper, has a very good effect. To prevent thrush, the feet, and particularly the cleft of the frog, should be kept clean, and an occasional dressing of tar is useful in preventing diseases, and at the same time tends to promote a healthy growth of horn.

The Dairy.

Sterling Algure's Milk Agitator.



In cheese-making by the factory system the need of some contrivance to stir the night's milk was early felt, but the application of machinery to the purpose is a recent improvement. Milk agitators, as they are called, have now come into general use, being considered essential to a well-conducted cheese factory. The objects attained by gently stirring the milk are its gradual cooling, the removal of the animal odour, and the retention of the cream in the body of the fluid—all three very important points, and though it is true with regard to the last that the cream after it has risen may be stirred in again, still it is not so thoroughly incorporated with the milk as if it had never been separated.

The invention represented in the accompanying engraving has been found to answer the desired end most satisfactorily, and is now in extensive use, both amongst our own cheese factories and in those of the United States, where we have seen it in actual and satisfactory operation. It is manufactured by Mr J. B. Harris, of Belleville.

The annexed illustration will sufficiently explain the principle of the contrivance, which is, indeed, very simple. The milk vat is double, the outer case being designed to contain water, which flows in at one end and out at the other, where it is received into a box divided into two compartments, and so constructed as to be capable of rocking to and fro. As the water flows into one of these compartments, it gradually tilts it over, when, of course, the water will flow into the other compartment, and as the first meanwhile empties itself through the aperture G, the second, becoming filled in its turn, will tilt the box over on the other side. This oscillating movement furnishes the power required to set the agitator in motion, as will be seen by a reference to the illustration.

Mr. Harris brought to this office a small model of the machine, which we had an opportunity of examining, and which clearly shewed the simplicity and efficiency of the arrangement. This gentleman also shewed us a number of testimonials from the proprietors of various cheese factories, all of whom spoke in the highest terms of the admirable working of this milk agitator. The most recent of these is from the Hon. David Reesor, of Markham. It is addressed to Mr. Harris, and is to the following effect:

"The agitator you put in my cheese factory gives entire satisfaction. Mr. Malone, who is in charge, informs me that it quite exceeds his most favorable expectations of the value of Algure's Patent. I have no hesitation in recommending it as very indispensable in a well-conducted factory.

Yours truly,

D. REESOR."

We direct attention to Mr. Harris' advertisement in the present issue, and cordially commend this important invention to the attention of Canadian cheese manufacturers.

Rearing Calves.

THE most important thing in the feeding of the calf is that it should receive the first milk from its mother. This milk, called *colostrum*, possesses purgative properties necessary to clear the intestines of

the new-born calf. That clearance effected, the calf should be nourished for forty days with pure milk of good quality. This liquid constitutes complete nourishment, since it contains the assimilating elements necessary for the formation of the various parts of the young animal. In effect the pure milk contains, *caseine*, to produce flesh, *phosphate of lime*, for the formation of bone; sugar of milk and butter, substances rich in carbon and hydrogen, to favor the assimilation and concur in forming fat.

If pure milk is not given in sufficient quantity either from the cow not producing it (which is very unusual in natural suckling), or from the buttery matter being removed by skimming—the calf will not have the nourishment required for its organization. It will be less developed, remain small, and suffer during its whole life from the consequences of parsimonious and ill-directed feeding, during the first period of its existence.

The calf is nearly always made to pass too suddenly from the diet of pure milk to that of skimmed milk, without adding to the milk despoiled of its buttery elements any substance capable of filling their place. To repair the loss which results from skimming the milk, we should add a decoction of flax seed; later, a decoction of beans, which contain *caseine*, mixed with an infusion of flax seed, which contains gum; add to this a small quantity of molasses, and we obtain a very nourishing drink.—*Gazette des Campagnes.*

New Cow-Milking Apparatus.

THE *Mark Lane Express* concludes a very full notice of the Havre International Exhibition, by describing "a few odds and ends" found in the galleries. Among them we find the following account of a new cow-milking apparatus.

"As to a cow-milking apparatus, the invention of M. Liverbaron, Rue de Provence, Paris. We cannot say that we are an ardent believer in the milking of cows by mechanical means, certainly not in such a aim at effecting it by such means of a complicated character. The majority of farmers believe, and they have at least a great deal to say on their side of the question, that milking the cow, like some other operations in practical farming, is best done by hand, and that all complicated apparatus to operate this should be avoided. Certainly the apparatus now before us has not this charge of complication of parts to go against it. Nothing can indeed be more simple; it consists of a small silver tube, which is simply inserted in the orifice of the teat, and which serves as a tube by which the milk vessels completely empty themselves. The apparatus has been tried by several eminent Continental agriculturists, who speak highly of the completeness of its action and the ease with which it can be used; and whether the fact will have any weight with our readers or not, which will depend upon the views they hold of the prize system, the appliance has had a prize awarded to it at the agricultural show held at Amiens last year. Before inserting the tube, the teat should be filled or swollen out with milk brought down by hand; the tube is then inserted gently, giving it on its entrance a slight turning motion which will facilitate its passage into the orifice of the teat."

Bran for Milch Cows.

PLAIN bran or ship stuff, says the *Stock Journal*, is one of the very best kinds of food to increase the milk. It is not fattening. A steer could not be fattened on bran alone, and a cow, if fed on the best of hay and bran alone, might fall off in her yield, unless her strength and condition were kept up by Indian meal, or stronger food. If there were anything in which there would seem to be no strength, it is bran—the mere hull of wheat. It is not stimulating like brewer's grains, and can certainly do no harm, if it does no good; and yet any farmer who will make the experiment will find—or at least we have found—that a cow being otherwise kept in a proper condition, her yield of milk will be very considerably increased by giving her twice a day a feed of pure bran. The fact is patent, although we are not able to explain it. If there is any one article, which, while keeping up the health and strength of the cow, will also increase the supply of rich healthy milk, in our experience it is cotton seed cake meal. We have found this to have a great effect on the milk secreting organs. The cows at first do not seem to relish it, and it should be mixed with some other feed, but they soon come to like it, and we have never seen any bad effects in any way.



Meeting of the Fruit Growers' Association.

A meeting of the Directors of the Fruit Growers' Association, of Ontario, was held in the County Council Chamber, Prince's Square, Hamilton, on Monday, 7th Sept., 1868. Present, W. H. Mills, Esq., President, in the chair, His Honor Judge Logie, Rev. R. Burnet, Messrs. C. Arnold, A. M. Smith, L. Springer, W. Saunders, and D. W. Beadle.

The Secretary read the minutes of last meeting of the Board, and reported that he had communicated to the Secretary of the Board of Agriculture the resolutions affecting that body, and that he had received four essays on the cultivation of the apple, bearing the following mottoes, viz., "Vive et Disce," "Here's to thee, Old Apple-tree," "Fine Fruit is the Flower of Commodities," and "The Price of Good Fruit is Eternal Vigilance."

The Rev. R. Burnet and Warren Holton, Esq., were appointed judges upon the essays, with power to add to their number a third person if they found it to be requisite.

The Secretary presented the request of Mr. W. H. Reid, of Port Dalhousie, asking for the appointment of a committee to examine bisseedling grapes, eleven in number. The Directors appointed Messrs. W. H. Mills, Wm. Haskins, Chas. Arnold, A. M. Smith and D. W. Beadle such committee, and instructed them to examine them on the day after the meeting of the Fruit Growers' Association in St. Catharines.

The request of Mr. Chas. Arnold, of Paris, was presented, asking the appointment of a committee to examine his five new hybrid grapes. Messrs. D. W. Beadle, W. H. Reid, Wm. Haskins and Wm. Saunders were appointed a committee to visit Mr. Arnold's grounds on the 17th day of September, inst.

Messrs. J. Freed and A. M. Smith were appointed a committee to assist the Board of Agriculture, if required, in the arrangement and classification of fruits at the coming Provincial Exhibition.

His Honor Judge Logie, and Messrs. L. Springer, C. Arnold, J. A. Bruce and Geo. Leslie, were appointed a committee to examine the fruits that may be placed upon the table, both at the annual and October meeting, and report thereon before the close of the meeting—any two to be a quorum.

A letter was handed to the Secretary from J. R. Martin, Esq., stating that he had set out to attend the meeting of Directors, but had been obliged to return.

Mr. W. Saunders submitted to the meeting a new insect pest, which he had discovered feeding within the seed kernel of the Clinton grape, causing the berry to shrivel and drop prematurely. Mr. Saunders kindly consented to prepare a report embodying what was now known of this insect. A resolution was passed thanking Mr. Saunders for submitting this new pest to the inspection of the Board, and directing that Mr. Saunders' report be sent to the CANADA FARMER for publication.

The subject of compensation to the Secretary-Treasurer was then discussed, and it was resolved that the sum of one hundred dollars per annum be granted to the Secretary, to assist in defraying expenses connected with his office.

The President and Secretary were appointed a committee to receive the catalogue of fruits, and prepare a report similar to the report made in 1863, and submit the same at some future meeting.

The Secretary was instructed to place a copy of the printed declaration in the hands of each of the

Directors, to be used in obtaining new members. The Treasurer was instructed to place the funds he may have in hand on deposit, upon the best terms he can negotiate.

The Secretary was instructed to prepare the Annual report of the proceedings of the association; also to compile the reports of the fruit committee, and the discussions at meetings, and to submit the same at the annual meeting to be held in the Court House, Prince's Square, Hamilton, on Tuesday evening, the 22nd inst., at seven o'clock.

The annual meeting of the association was appointed to be held at St. Catharines, on Tuesday, the 13th day of October, 1868, at eleven o'clock a.m. to be continued through the day and evening, the subjects for discussion to be the following:—

APPLES.—The best varieties for market; new varieties; picking and packing for market.

PLUMS.—Best varieties, and the best methods of preventing the black-knot, curculio, and other insects.

Evening session meet at seven o'clock.

GRAPE.—The best earliest variety; the best varieties for market; soils adapted to the several varieties; pruning and training.

The Secretary was instructed to embody in the annual report the articles addressed to the Board on "Hybridizing," on "the Philadelphia Raspberry," and on "the Codlin Moth or Apple Worm."

The Board appointed Wm. Saunders, Esq., of London, Entomologist to the Association, and directed that his reports on insects injurious to fruits, which may be addressed to the Directors, be sent to the CANADA FARMER for publication.

The Secretary was instructed to inform the members of the association, through the reports of proceedings, that any member of the association is at liberty to send (charges pre-paid) any specimens of insects to Mr. Saunders, at London, which may be found injurious to any of our fruits, by preying upon foliage, fruit, flower or stem; and that while Mr. Saunders is willing to receive and examine these insects, and report thereon to the association, no member will expect that Mr. Saunders shall be put to expense in the transmission of such insects to him, or in replying to any communications respecting them.

The Board then adjourned to the call of the President.

During the next season I intend to graft two thousand, hoping to confer a real benefit to orchard keepers by scattering them over the New Dominion.

THOS. HOOPER.

Columbus, Sept. 3.

NOTE BY ED. C. F.—We commend the enterprise of our correspondent and wish him all success. The specimens sent to us were beautiful looking apples, of a creamy colour, somewhat pear shaped, and of moderate size. They are fall fruit, not adapted for keeping. Flavour is a matter of individual opinion, but to us they appeared deficient in this respect, owing in some measure, no doubt, to over-ripeness. Some winter apples, since received from Mr. Hooper, are of beautiful appearance and excellent flavor, especially adapted for cooking, and well worthy of careful propagation in this country.

matter, to which some of the best horticulturists in America contribute, is interesting and instructive. The journal is published by J. E. Tilton & Co., Boston.

The following is the account of the Wilder strawberry: "The plant is hardy, robust, vigorous, and very productive. The foliage is handsome and well developed, leaf dark green, roundish, obovate, deeply serrated, of great substance with stiff, short foot stalks, and stands the extremes of heat and cold without injury. The flower-stalk is stiff and erect, the flowers perfect. The fruit is large, some specimens attaining to more than five inches in circumference; and many berries this year weighed more than one ounce avoirdupois each. Their colour is a brilliant crimson scarlet; form obtusely conical; the flesh rosy white, very juicy, but sufficiently firm for market; flavour rich and sprightly, inclining to sweet,

with a distinct aroma of the Alpine or wood strawberry; seeds small; season late.

This variety was produced in 1861 by Mr. Marshall P. Wilder, from artificial impregnation of Hovey's Seedling with La Constante, the best two varieties, perhaps, that are now under cultivation; La Constante being the best of the foreign kinds ever brought to this country, and Hovey's Seedling being too well known to need any further mention.

For perfection of form, flavor, and brilliancy of color, combined, this strawberry exceeds anything that has been produced for a long series of years.

Mr. Wilder has been at work raising seedlings for thirty years, and although he has obtained several good ones, he never yet has got one with which he is so completely satisfied as he is with this. The description we have given above is, we believe, in substance, the description settled upon by the fruit committee of the Massachusetts Horticultural Society; to whom the question of a name was submitted, and who have called the strawberry "President Wilder." We have no doubt that it will keep Mr. Wilder's memory green for years and years to come; or that, as soon as it becomes known, it will take the highest possible rank among strawberries, and perhaps supplant everything else."

S. E. Tilton & Co. have, we understand, purchased the whole of Col. Wilder's stock, for distribution among the subscribers to the American Journal of Horticulture.



President Wilder Strawberry.

English Apples in Canada.

To the Editor of THE CANADA FARMER:

SIR,—Believing that the merits of English apples are not yet well known, and that the most valuable kinds do well here, I imported fifteen different grafts, four years ago last winter. I beheld several native apple trees, forming a union between the English and Canadian fruit trees. Though these trees stood on the north side of an orchard and were perfectly exposed, yet I have not had one shoot cut back by the frost.

One of the kinds "English Stubbard" (specimens of which I forward) bore fruit the second, third and fourth seasons, and in such abundance as to astonish my friend, S. Roberts, Esq. I counted forty on two grafts.

We have much pleasure in presenting our readers with the accompanying illustration of a new variety of strawberry, the name of which, and the history of its production, are in themselves no small recommendation. Its repute is high in the State where it was raised, but how far it would prove suitable to the climate of Canada remains to be seen. We are indebted for the illustration to the courtesy of the publishers of the *Journal of Horticulture*, from the September number of which we also extract the description of the strawberry, and in doing so, would again commend this beautiful and admirable journal to the notice of our readers. The type and illustrations are in the best style, and the reading

The annual meeting of the Fruit Growers' Association will be held in the Court House Hamilton, on Tuesday, 22nd September, at 7 o'clock, p. m.

All wrinkled peas, says an exchange, are superior to, and more delicate in flavor than those that present a full and perfect form; like sugar corn, the saccharine matter which they contain causes them to shrivel when dried.

EVER-BEARING RASPBERRIES.—M. L. Dunlap says he travelled much in his time, and sat at the tables of a good many prominent horticulturists, but never was so fortunate as to find these autumn berries on any of them. He adds:—"I don't want to prevent gentlemen who can from furnishing us with such fruit; but I do want to prevent the expectations of the public being raised too high by them."

Entomology.

Specimens from a School Girl.

To the Editor of THE CANADA FARMER:

SIR,—I send you three beautiful specimens of insects. I hope they will prove interesting to you, and if so, I would like to see them re-produced in pictures in your paper, as I have often seen before. The spider I found on some scarlet beans; the moth in my bedroom; and the curious fly on a girl's hat.

I remain, Sir,

Yours respectfully,

A SCHOOL GIRL.

Mimico, September.

NOTE BY ED. C. F.—We were much pleased at receiving the above note, which was neatly and clearly written, from some fair young correspondent. We trust that her example will be followed by others amongst our youthful readers who desire to know something about the many beautiful and curious things in nature. The study of Natural History in any of its phases, no matter whether the attention is turned to ferns or flowers, insects, fishes, or birds, is, we feel satisfied, one of the best means for the improvement of the mental faculties of the young; while at the same time it renders all the common objects in the world around us sources of pure and unalloyed interest and delight. In the words of Kingsley, in his "Glaucus,"—"I have seen the young London beauty, amid all the excitement and temptation of luxury and flattery, with her heart pure and her mind occupied in a boudoir full of shells and fossils, flowers and sea-weeds, and keeping herself unspotted from the world by considering the lilies of the field, how they grow."

The spider sent us is a very beautiful black and golden-yellow specimen of these usually rather repulsive creatures. Its Latin name we do not know, as we have not made a special study of these useful animals. We do not suppose, however, that our correspondent has any particular anxiety to be enlightened on that point. The moth is called the Crimson Underwing (*Calocoris concumbens*, Walk.). When its wings are closed, it presents the appearance of a flat mottled-gray triangle, very like the bark of the trees on which it reposes during the daytime; but peep at its underwings, and then you will see what a thing of beauty it is—they are of a rich crimson colour, with a broad black band across the middle, and a black border fringed with white. There are about twenty different kinds of these moths in Canada, some with the underwings of various shades of red, some of yellow, some white, all having one or more bands of black, while others, again, have these wings entirely black above, but with the usual bands beneath. The fly is one of those commonly called "May Flies," (*Ephemera*); they have light, gauzy wings and slender bodies, with long antennae in front, and two excessively long tails behind. In their first stages they live in the water, some say for as long as three years, but when they obtain their wings, they live but for a single night, coming out at sunset, and dying the next morning; a few stray specimens, however, live sometimes for ten days or a fortnight. Early on a bright summer morning we have occasionally seen tens of thousands of them dancing merrily in the sunshine over the shore and shallow margin of the lake; up-and-down, up-and-down they go, enjoying their short existence to the utmost. We must defer any illustration of these interesting creatures for another occasion.

The Horned Corydalis, or Shad-fly.

IN our issue of Aug. 1, we mentioned the receipt of a communication from Mr. Walter Tait, of Beverley, accompanied by a specimen of the female of this insect. (We regret that by a typographical error the name was mis-spelt "Chad Fly," instead of "Shad Fly.") He writes as follows:—"Enclosed I send for your inspection, an insect, which from its peculiarly ferocious appearance, has excited the curiosity of every one who has seen it. Never having met with an insect of the same kind during a ten years' residence in Canada, nor found among old settlers one who had seen such a specimen, I thought that perhaps it might be a native of some tropical country, which, in consequence of the unusually hot weather we have had, may have migrated to our usually more temperate region." The terrible hot weather of July was certainly tropical enough to warrant us in expecting the advent of any monstrous dire from the regions of the equator; the specimen before us, however, of which we give an illustration, is not to



be classed among these, notwithstanding its portentous aspect, but is a veritable native of Canada. We have taken them from time to time ourselves, and have occasionally had them brought in to us by astonished captors, who not unnaturally deemed that they were prodigiously valiant in venturing to touch such a horribly ferocious-looking animal. Its looks belie it, however; for, though so big and formidable in appearance, it is one of the most harmless insects that we have. It belongs to the order *Neuroptera*, which includes also Dragon-flies and other net-winged insects—and is called the *Corydalis Cornutus*. Its larva is a broad flat worm with six legs, and a row of long spiny filaments on each side of its body, living in the water and preying upon various aquatic insects. When about to assume the pupa state, it crawls out of the water and hides itself under some log or stone on the river-side, where it is often found by fishermen, who make use of it as bait, and call it by the expressive name of "crawler." It takes about three weeks to arrive at its perfect state, and then it comes out with huge wings to fly about at night, and provide for the due arrival of a new generation. The jaws of the female that we have figured are by no means small, but they are nothing when compared with those of the male, which, to use an expressive phrase, are "a regular caution," being about an inch long, curved, and crossing each other in the middle like a pair of scissors!

An Emperor Moth's Cocoon.

WE have received from "B," who writes from Kincardine, Co. of Bruce, a tin box, enclosing a carefully packed specimen of an Emperor Moth's cocoon. It was found, he states, "firmly fastened to the branch of an apple tree, and so securely did it adhere with its parchment-like covering that it required considerable effort to detach it;" as he had never seen anything like it before, he sends it to us for identification.

This pod-like cocoon, formed of strong silken fibres so firmly agglutinated together as almost to resemble parchment in texture, is the last stage but one in the life of one of our largest and handsomest insects—the *Cecropia* Emperor Moth. The caterpillar, which is hatched from a round, flattened, brown and white egg, is, when fully grown, a huge, fat, humped worm, three or four inches long, and thicker than a man's thumb; it is of a beautiful green colour, adorned with singular blue, yellow, and coral-red warts on the back. It feeds on the leaves of apple, plum, cherry, and numerous other trees, to a twig of which it attaches its cocoon when done feeding, and there it remains, exposed to the frost and snow, and bitterest blasts of winter, unaffected by them all, ready to come out a beautiful winged moth when genial June comes round again. This moth is the largest insect we have in Canada, its wings expanding to a breadth of six or seven inches. We shall not describe it particularly now, as we purpose giving an illustration of it before long.

Poultry yard.

Fancy Pigeons.

To the Editor of THE CANADA FARMER:

SIR,—Perhaps a few more observations on the Pigeon tribe may not be unacceptable to your readers. I am afraid I cannot offer anything new, or that may not be found in Tegetmeier's, Eaton's, or other modern works on the subject; but I have found few, even of those who call themselves fanciers, in Canada, know anything, or comparatively anything, about it.

As a rule, the specimens of pigeons exhibited and kept in Canada are very inferior. I hope I may not "catch it" for this sweeping condemnation, but it is truth, and the sooner told the better; and my advice to those who are inclined to keep pigeons is to clear their lofts of all their rubbish, and invest in a few pairs of the correct specimens, by importation from England. Perhaps it would be as well to give an illustration of my meaning by reference to a few kinds. I will begin with Carriers. Well, with the exception of my own, I do not think I have seen a Carrier since I left England. I have seen one or two Horsemen, and very indifferent Dragons. Unsophisticated persons are very apt to call all these birds Carriers, but a true genuine English Carrier is a fancy bird, very hard to obtain; and to keep them up to the standard is still harder. Great circumspection is required in the selection of breeding stock and matching; and the worst is that neither this nor any good stock can be had without paying very high prices, not justified at present by the demand for them. But then it is useless having inferior stock; so that it is simply do without, or pay the price; and it will then take from three to five, and on to nine years, to get up such studs as I have seen at Hayne's Potter's, &c. There is one good thing about them,—they are, as a rule, good nurses, and take care of their young; and my experience of Canada is that it suits them. The atmosphere takes liberties with their plumage, especially the "dun;" and due allowance must be made for this at exhibitions. Indeed I know of no bird harder to judge in close competition. For the points of these birds I must refer you to Tegetmeier's Pigeon Book; it would take up too much time and space to enter into them here.

The coffee trees in Madras and that part of the East Indies are greatly troubled with the coffee borer, an insect similar to the borers we have had in the acacias

These remarks will apply in many points also to Pouters, few good specimens being seen. You will find a bird with a large crop, and no legs, short tail, &c., and no length. The first point in a Pouter is length of leg, or limb, as it is called; then length of body or feather, and crop, and last of all, I say, colour. You will find well-marked birds in Canada, but you will require to be told they are Pouters or you would not know it. I put colour last, on the principle that a good horse cannot be a bad colour, nor a good Pouter either.

With regard to *Tumblers* of the common variety, I believe there are some good specimens, as far as tumbling and flying are concerned. There are some fanciers in Montreal who train their flights. I should say the colour is mostly indifferent, but I have seen some, though only a few, very good as to colour, especially Almonds. Bald-heads are few and far between; Beards are better. It will perhaps more plainly illustrate the real status of these birds by saying that any like them could be purchased in England for three shillings a couple.

As for *Short-face Tumblers*—where are they? There are a few attempts at them, but the real thing I have never seen since I left the old country.

The *Jacobins* to be seen in Canada are too large, mousey-headed, long-faced things, often odd-eyed, bad coloured, and inferior in the hood and chain. There are very few good, if any.

At some future time I may resume the subject, if you think these remarks of sufficient interest to your readers. F. C. HASSARD.

Roup in Fowls.

A subscriber, from Paris, sends the following communication:—"About a week ago, my fowls were attacked by a loathsome disease, the symptoms of which are running at the nose, watery eyes, dull appearance and gaping. Can you or any of the readers of your paper give me a cure for it, and tell me what disease it is, and how game fowls are more subject to it than any other class of fowls?"

The disease described by our correspondent is a very common, contagious and fatal disorder, called roup. We are not aware that it is at all more prevalent among game fowls than any other variety. We are sorry that we cannot say much on the subject of a cure for this troublesome complaint. If the fowls are not very valuable, it is almost better to destroy them than undertake the trouble of the cure, or run the risk of the spread of the malady. We will give our correspondent, however, the benefit of Tegetmeier's remarks on the treatment of such cases.

"Warm, dry lodging, and stimulating, nutritious food, are the first essentials to recovery, in addition the frequent removal of the dried discharge from around the eyes and nose, by warm bathing, must not be omitted. In the way of internal medicine, I find that nearly equal numbers recover under various modes of treatment. I have tried the following remedies, viz.: iodine in tincture, mercurial ointment, and nitrate of silver, all applied externally to the sides of the face, without any advantage. Internally I have given calomel, sulphur, citrate of iron, calomel and opium, cayenne pepper, and sulphate of copper, without any very well-marked or decided improvement. The direct application of some remedial agent to the diseased membrane promises the best result; but here we are met with the difficulty as to the application, for the nostrils are closed up and it is nearly impracticable to pass anything through them. A very small bent tube can, however, be readily passed into the cavity of the nose through the slit in the roof of the mouth; and I have tried the effect of injecting a few drops of a dilute solution (ten grains to the ounce of water) of sulphate of copper, with very favourable results. The injecting tube is readily passed into each nostril, if inserted into the anterior part of the slit seen in the roof of the mouth, and directed outwards at right angles to the slit.

"In very severe chronic cases, when there has been much swelling of the face, I have opened the side of the face, and removed the diseased secretion in a solid form."

Standard of Excellence in Exhibition Poultry.

GREVE CŒURS.

THE COCK.

Crest—As in Polish Cock, but perfectly black; white feathers a defect, but not a disqualification.
Head—As in Polish Cock.
Comb—Brilliant red, two-horned in shape, but free from tyndes; slightly spiculated base, of good size, showing well in front of the crest.
Eye—Full, bright, and very vivacious.
Deaf-ears—Small and nearly concealed.
Face—Red, well muffed.
Wattles—Moderately pendulous, and evenly rounded, brilliant red.
Muffling—One and a half thick, running to back of the eye in a handsome curve.
Beak—Black, with horn-coloured tip, strong and well curved, with highly arched broad nostrils, as in Polish.
Neck—Moderate in length, thickly hackled, well arched, and carried a little back.
Breast—Broad and full, carried well forward.
Back—Wide, perfectly straight, and free from deformity.
Body—Long and square.
Wings—Closely set and well clipped up.
Tail—Full and ample, well sickled, and carried rather erect.
Thighs—Rather short, well set in body.
Legs—Black or slate, shorter the better, rather fine in bone; free from feathers.
Carriage—Upright, smart, vivacious, and watchful.
Colour—Brilliant black; red or straw feathers in the hackle and saddle undesirable, but not a disqualification.

THE HEN.

Crest—Full and globular, as in the Polish black; white feathers objectionable, but not a disqualification.
Head—As in Polish.
Eye—Full and bright.
Deaf-ears—Small, hidden by muffling.
Muffling—Thick and full, extending well back to crest, and forming a thick beard under the beak.
Wattles—Very small, and neatly rounded.
Neck—Thick and arched.
Breast—Full, plump, and carried well forward.
Body—Square, carried low.
Back—Straight and broad.
Wings—Well clipped up.
Tail—Large and well expanded.
Thighs—Short and well set into body.
Legs—Short as possible, free from feathers, rather small in bone, slate or black in colour.
Carriage—Upright and vivacious.
Colour—Brilliant black; a brown tinge very undesirable.

POINTS IN GREVE CŒUR.

Size	4
Crest	3
Shape and symmetry	2
Colour	3
Condition	2
Comb	1
	—
	15

DISQUALIFICATIONS.

Deformity of any kind.
 Coloured feathers elsewhere than in crest, neck, or saddle.
 Feathered legs, and shanks of any colour than black or slate.

HOUDANS.

THE COCK.

Crest—Composed of hackle feathers; full, and well arched, falling back, and right and left of comb, clear of the eye rather than over it.
Comb—Well developed, large, red and branching, broad at base, well indented, looking like a mass of coral with antler-like branches, inclining rather backward into the crest.
Beak—Curved, with nostrils wide and cavernous, as in Polish; dark brown colour.
Eye—Large, full, bright, and lively; colour, various.
Wattles—Thin, rather long, neatly rounded, and bright red.
Muffling or Beard—Full and thick under beak, and reaching well back in a curve to the back of eye.
Face—Red; less seen the better.
Breast—Deep, full, and plump.
Back—Wide and straight.
Wings—Moderate, and carried well up.
Tail—Moderate, erect, and well sickled.
Thighs—The shorter the better.
Legs—Fine in bone, white or shaded.
Toes—Five in number, the fifth curved upward at back.
Colour—Broken black and white, as evenly broken as possible; free from coloured feathers, which, however, though objectionable, are not a disqualification.
Carriage—Lively, brisk, well set up and spirited.

THE HEN.

Crest—Large, compact, and even, as in Polish.
Comb—Small, branching, and coral-like.
Eye—Full and bright.
Wattles—Small, red, and neatly rounded.
Muffling—Full, forming a thick beard reaching back to the eye.
Neck—Rather short, full feathered and arched.
Breast—Full and deep.
Back—Wide and straight.
Wings—Moderate, and carried close to the body.
Tail—Moderate, and fan-like, carried well up.
Thighs—Short.
Legs—Fine in bone, white or shaded in colour.
Toes—Five in number, the hind or fifth claw curved upwards.
Colour—As in Cock.
Carriage—Brisk, and rather upright.

POINTS.

Size	4
Crest	4
Symmetry	2
Plumage	2
Condition	2
Five claws	1
	—
	15

DISQUALIFICATIONS.

Absence of crest.
 Deformity of any kind.
 Main colour or ground colour other than black and white.

LA FLECHE.

THE COCK.

Beak—Black, strong, and curved; nostrils wide and cavernous, as in Polish, with small spot or knob of bright red flesh at junction of nostril with beak.
Comb—Branching and antler-like, like two horns pointed straight up, brilliant red.
Ear-lobes—Large, and as white as possible.
Head—Long.
Eye—Bright, large, and watchful.
Face—Red, and rather bare.
Wattles—Red, long and pendulous, well rounded.
Neck—Long, rather curved, and upright; hackle thick, but rather short.
Back—Very long and broad, slanting towards the tail.
Wings—Long, and well clipped in.
Breast—Broad, and rather full.
Tail—Rather small, and carried low.
Thighs—Strong, long, and well set into body.
Legs—Long, strong, and black or slate in colour.
Toes—Four.
Plumage—Close and hard, brilliant metallic black.
Carriage—Very upright, dignified, and watchful.

THE HEN.

Beak—Black, strong, and curved; nostrils arched, broad and cavernous.
Comb—Double-spiked and branching, standing well up, or the branches inclining a little forward, small.
Head—Long.
Eye—Bright and watchful.
Face—Red and rather bare.
Deaf-ears—Small and white.
Wattles—Red, small and neatly rounded.
Neck—Long and straight.
Back—Broad, and tapering towards the tail.
Body—Wide and deep.
Breast—Very broad.
Wings—Large, and well clipped up.
Tail—Small in proportion, but well expanded, and carried upright.
Thighs—Long and well set into body.
Legs—Long, well boned, black or slate in colour.
Plumage—Brilliant metallic black, close and hard.
Carriage—Upright, dignified, and watchful.

POINTS.

Size	6
Comb	3
Shape	3
Condition	3
Deaf-ear	1
	—
	15

DISQUALIFICATIONS.

Plumage any colour but black; presence of crest; feathered legs; deformity of any kind; legs any colour but black or dark.

The above description of the points in French fowl does not appear in the Standard of Excellence, published by the London Poultry Club, but is extracted from Tegetmeier's Poultry Book.

66 A sitting hen in New Bedford has come off the nest with thirty-five chickens, without wearing crinoline.



Queries from a New Settler.

A CORRESPONDENT requests answers to the following list of queries:

1. Which do you consider the best farming districts in Ontario?
2. Can a first-class cleared farm be had on-lease, as in England, say for a term of seven, fourteen, or twenty-one years?
3. What capital would be required to properly work and stock a farm of 150 or 200 acres, and about what profit ought to be made on the capital after deducting expenses?
4. I spent, say the first fifteen years of my life on a first-class farm in England, have had experience in three counties in England, have a general, thorough, I don't profess perfect, knowledge of stock, arable and pasture farming. Would my previous experience be advantageous to me in this country, or not?
5. The style of farming I should pursue would be that of some of our best Canadian farmers, always keeping a sharp eye to the minor matters of the concern, purchasing my stock with a view of their growing into money, rather than keeping them for show, avoiding, at least for the present, anything like model or scientific farming, but rather endeavouring to conduct my business as a well managed mercantile concern ought to be conducted, viz: to pay for labour and capital. Do you think I should succeed?
6. What time of the year is the best to take possession of a farm?

ANS.—In offering our replies to the above queries, we must premise that the questions are so general and cover so much ground, that it would require a treatise on Canada to answer them fully. Moreover, he brings up the unsettled question as to which is best, the eastern section of Ontario, from its proximity to market, or the western section, from its supposed greater fertility.

(1.) Each section has its adherents, who think that nothing can equal their own homes. We must therefore recommend personal enquiry in the several districts. Each man applied to will probably urge the claims of his own locality, bringing forward the best arguments in its favour, and leaving out of sight perhaps its disadvantages. For these the enquirer must make due allowance.

(2.) First-class farms can be leased all over the Province on excellent terms for the tenant. Rents range from \$1.50 to \$4 per acre, according to the amount of cleared land, the value of the buildings, and the proximity to market.

(3.) Hundreds of tenants in Canada lease improved farms of 100 to 200 acres on a capital of from \$400 to \$2,000. In Canada, as in England, the more capital a man has on his farm (provided common prudence is used) the better he will succeed. There is no stated rule here as in England, stipulating for a certain minimum amount of capital in proportion to the number of acres to be leased.

(4.) Knowledge of English farming, and a competent judgment as to cattle, horses, and sheep, are always an immense assistance to a man commencing farming in Canada. Indeed, if his practical acquaintance with land and stock is yet to be acquired, he had better not buy a farm.

(5.) We cannot pass an opinion on this head without some personal knowledge of the querist. But we can see no reason why he should not succeed, nor why he should start with the determination of eschewing scientific farming.

(6.) The end of winter, or early in the spring, say 1st of March, is a common time to enter on a farm, but there are many advantages in taking possession in September or October. The land is often left

in poor condition by a tenant who does not contemplate remaining, and who does not therefore think it worth his while to fall plough or manure. The incoming tenant, if he enter in the fall, can attend to these matters himself, and has time to get settled in his new home before the hurry of spring work begins.

Caution to Smokers.

A Simcoe paper gives the following account of an accident from carelessness in smoking:—"A farmer in Windham, who was hauling in oats last week, while seated on the load with two little boys, used a match to light his pipe. The match was thrown away apparently extinguished, but directly after it was discovered that the load was on fire. The horses then ran away, a perfect stream of fire pouring from the oats. The farmer was thrown from the load, but the little boys clung to it. The horses were at length stopped by some parties on the road, when they were detached, and the boys rescued from the burning load."

To this our correspondent "Denizen," who sends us the above clipping, adds "another caution to smokers" from his personal recollection. He writes:—"About twenty-five years ago, a farmer driving down Queen street, Toronto, set fire to his load of hay by a spark from his pipe; he was driving pretty fast with a stream of fire in his rear. Passers-by called out and warned him of his danger; but the moment the horses came to a halt the whole load became enveloped in flame, so that he barely escaped with his life. The horses were both ruined by the fire, and could only be liberated by cutting the hame straps and leading them out of their harness. When I saw the place a few hours after, nothing remained to the poor farmer but his horses, and they dreadfully burned, with hardly a hair left of their fine flowing tails, and a pile of old tires and irons from the waggon and harness."

COMMUNICATIONS DEFERRED.—Several communications, received too late, or for want of space, are unavoidably postponed.

The Canada Farmer.

TORONTO, CANADA, SEPTEMBER 15, 1868.

New England Agricultural Fair.

[EDITORIAL CORRESPONDENCE.]

NEW HAVEN, Connecticut,

Sept. 4, 1868.

THE fifth annual exhibition of the New England Agricultural Association, an organization embracing the whole of Yankeedom, properly so called, commenced here on the 1st inst., and closes to-day. As this is one of the handsomest cities in the United States, and owes its beauty chiefly to its rural adornings, a brief description of it will not be inappropriate by way of preface to some account of the fair. New Haven occupies a beautiful plain, at the head of New Haven Bay, four miles from its entrance into Long Island Sound. It is 160 miles south-west of Boston, and seventy-six miles north-east from New York, being in a direct line between the two cities. The plain on which New Haven is built slopes gently toward the water, and is environed on all sides except in the direction of the harbour by hills, two of which, called East and West Rocks, are very rugged and precipitous, rising almost perpendicularly from 300 to 400 feet in height. Three small streams flow across the plain, emptying into the bay. They are bridged at several points, in one instance with a draw-bridge, which leads from the steamboat landing to East Haven. The streets are usually four rods wide, intersecting each other at right angles. Those on which the best private residences are built exhibit a particularly neat and elegant appearance, from the fact that the dwellings are for the most part detached, and surrounded with shrubbery and gardens, which are tastefully laid out and well kept. Hill House Avenue, a delightful

suburb, is a paradise of foliage and flowers. But the crowning glory of New Haven is its noble and lofty elms. These have long given it the appropriate designation of "Elm City" and "The City of Elms." The principal public square, comprising about sixteen acres of land, is bordered with majestic elms, and crossed by avenues, on each side of which is a row of the same trees. One whole side of this magnificent square is occupied by "Yale College" buildings. This is one of the oldest and most renowned of the many educational institutions in the United States. The College buildings have for the most part no architectural attractions, consisting of eight plain brick edifices, five of them four stories high, containing study and sleeping rooms for the students, and the other three, each surmounted by a tower or spire, being the chapel, observatory, and lyceum. In the rear of these plain buildings are some of more modern erection, that have some architectural pretensions. Chief among them is the library, a costly and handsome Gothic structure, (fire-proof), 150 feet in length. The Medical College, a handsome granite structure, stands a short distance farther off. The other three sides of the great square are occupied by stores, hotels, churches, and private dwellings, while actually on the square stands the State House, a large stuccoed building, modelled after the Parthenon. Nothing can exceed the beauty of the elms. No wonder they are the pride of New Haven. Whether singly or in rows, the elm is a grand tree, its variety of shape, and gracefulness in every part of its outline, giving it an indescribable charm. There is hardly any other forest tree that, planted as these are, without intermixture with other trees, would not look monotonous. If this fine elm-bowered square were surrounded by log-houses or shanties it would still be a charming spot. It is not from costly architecture that this scene derives its loveliness, but from so cheap and universally practicable a thing as tree-planting. We have often advocated this means of imparting beauty to country homes, villages, and towns, but no language we can find can do justice to the example of its effect as seen in this city. To give our readers some faint idea of a scene which perhaps few of them will ever have the privilege of beholding as we have done, we present herewith a couple of engravings prepared by our artist from photographs. The first represents College Street, with Yale College buildings on one side, and the State House on the other. The second engraving shows Temple Street, the finest of all the elm-arched avenues that cross the square. Did ever series of Gothic arches present so magnificent a perspective as this double row of elms? Yet there is not a village in our land that might not have in time just such a natural archway, if the population would only plant trees. The early settlers in New Haven, by whom the trees were planted, have left an enduring monument behind them which will keep their memory green to the end of time. There are some exceedingly fine public buildings and private residences in New Haven, but it is the concurrent testimony of all who have been here, that this place owes more to nature than to art, and that its chief charm arises from what might adorn the humblest and most unpretentious cottage home.

But to the fair. It is held in Hamilton Park, a very convenient spot, about a mile and a half from the heart of the city. The exhibition consists of two departments, the agricultural show, properly so called, and THE RACES. It is most extraordinary to what an extent the horse-racing mania has got the ascendancy in the New England Agricultural Association. The managers of the concern seem to be possessed with the idea that without the races they cannot make the annual fair pay. Hence they not only tolerate, but encourage this objectionable appendage, even to the extent of allowing gambling pools to be openly sold at auction. The same unscrupulous greed which admits racing has led to the licensure within the grounds of such a collection of wretched catch-penny side-shows as we never saw

buddled together before. It is said that a couple of lawyers once went into partnership in the city of New York, whose names, when associated on the "shingle" they stuck up, read "Catchem & Cheatem." This is probably apocryphal, but it would really seem as if Catchem and Cheatem were the presiding spirits at this exhibition, in the very heart of steady-going New England. The determination to make the thing "pay" seems to have been the ruling purpose, without much regard to the means whereby the end was to be brought about.

The combined attractions of agricultural fair, races, and side-shows, have proved irresistible to a large number of people. It is estimated that from 20,000 to 25,000 people were on the ground yesterday. The charge for admission to the grounds is fifty cents each and every time, to all non-members. Beside this, admission to the grand stand, where some thousands can have a good view of the racing, is twenty-five cents extra. What with members' fees, admission tickets, grand stand charges, side-show licences and the sale of gambling pools, quite a pile of money must be scraped up. But certainly the keen dealers in basswood hams and wooden nutmegs, and the class of people concerning whom it is proverbial that they and their money are soon parted, have not as yet all emigrated from New England to parts unknown.

Barring the objectionable features just referred to, the agricultural display is a good one, and it says very little for the intelligence and public spirit of New Englanders, that such an exhibition would not draw a large attendance of visitors without racing and gambling appendages.

THE LIVE STOCK.

There is a large muster of horses, chiefly, however, of the carriage and roadster classes. Some spans are beautifully matched, and really magnificent animals.

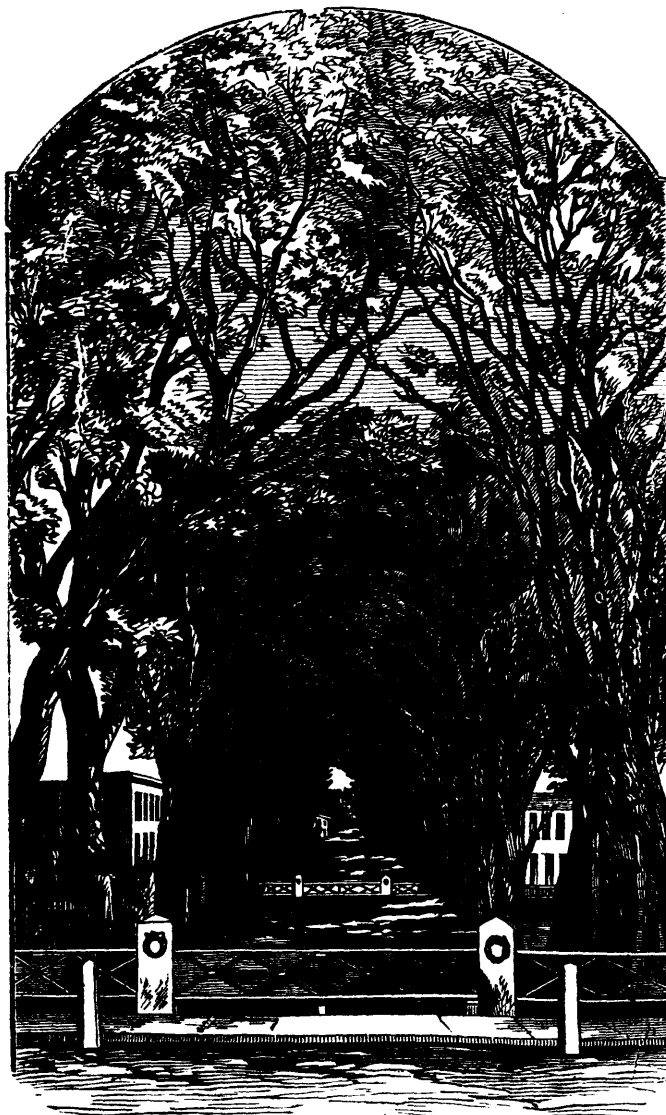
Single horses too, of very fine appearance, are numerous. The race-horses are not much to look at, but are lanky, ill-proportioned brutes, almost without exception. Eleven thorough-breds are exhibited; seven of them the property of W. W. Chenery, Belmont, Mass., and among them are some remarkably good specimens. The general purposes class of horses is well filled, and for practical utility, both on the farm and road, they are all that could be desired. A number of highly promising colts are also shown. The cattle department, as a whole, is in advance of anything in that line which we remember to have seen at any fair in the United States. We certainly did not expect to find such an array of Short-horns. Some of the choicest specimens of the

blood, and other favourite strains, are here. Mr. H. M. Arms, of Springfield, Ill., shows a fine herd, recently purchased by him of Mr. Burdett Loomis, of

ting up for some years. Among them are "6th Duke of Thorndale," and his son by "2nd Lady of Oxford," "4th Lord Oxford," "Tyke," a three-year old heifer, and "Gem of Stony Brook," all very choice animals. Messrs. A. J. Cass, Holliston, Mass.; B. Sumner, Woodstock, Ct.; C. Spooner, Bridgeport, Ct.; A. M. Winslow and Sons, Putney, Vt.; and A. W. Griswold, of Morrisville, Vt., also exhibit in the Short-horn classes. The last named gentleman shows "14th Duke of Thorndale," of which he is the fortunate owner. Devons are out in strong force, the chief exhibitors being Harvey Dodge, of Sutton, Mass.; E. H. Hyde, Stafford, Ct.; Stanley Griswold, Torrington, Ct.; and W. Mattoon, Springfield, Mass. A very noticeable feature among the Devons are the working oxen. New England farmers wisely make large use of oxen as well as horses, and Devons or Devon grades are the favourites for working cattle. The display in this class is something remarkable. One exhibitor, Marshall H. Day, of Chesterfield, N. H., shows two pair of twin cattle all from the same dam, a good native cow, and sired by a Devon Bull. These four oxen are wondrously alike. Each pair is perfectly matched. One pair, five years old, weighs 3,900 lbs., and the other, seven years old, weighs 4,200 lbs. The younger team is valued at \$600, and the older one at \$700. A pair of Durham grades, owned and exhibited by the same individual, and weighing 3,800 lbs., is valued at \$500. Those who have only seen the ordinary style of ox teams, rough, scrubby, unshod and unkempt, can have no idea of the fine appearance presented by a first-class New England ox team, groomed, shod, and trimmed up, like a stylish pair of horses. Besides the full-grown Devon and grade oxen, there is a very fine display of steers. The Alderneys and Ayrshires are numerous and of prime excellence. Messrs. Converse and Flagler, of Arlington, Mass., exhibit two Alderney cows, "Lady Milton" and "Cream Pot," that gave an average of nineteen quarts of milk each daily, during the month of June last, from which an average of two lbs. twelve oz. each of butter was made; or twenty pounds per cow, weekly. Messrs. Wallace Barnes, of Bristol, N.J.; John Brooks, Princeton, Mass.; Thos. Fitch, New London, Ct., are, in addition to the firm already mentioned, the chief Alderney exhibitors. Ayrshires were shown by Messrs. H. S. Collins, of Collinsville, Ct., and W. Birnie, of Springfield, Mass., both of whom have large and fine herds; also by S. M. & D. Wells, of Wethersfield, Ct., and Thomas Fitch, of New London, Ct., who have some excel-



STATE HOUSE AND YALE COLLEGE BUILDINGS, NEW HAVEN.



TEMPLE STREET,—NEW HAVEN.

Windsor Locks, Ct., who having resolved to concentrate his attention on sheep, sold the valuable collection of Short-horns he had been carefully get-

both of whom have large and fine herds; also by S. M. & D. Wells, of Wethersfield, Ct., and Thomas Fitch, of New London, Ct., who have some excel-

lent animals. The last named gentleman shows some fine Alderney and Ayrshire Grades. Dutch or Holstein cattle are exhibited by Mr. W. W. Chenery, of Belmont, Mass., who has no fewer than twenty-six head of these cattle on the ground. They are clumsy and rather coarse-looking animals, invariably black and white, mixed and mottled; the cows, from the size of their bags and escutcheons, ought to be good milkers, but we do not know of any special advantages they have over other good breeds beyond this, that they illustrate the proverb, "variety is pleasing." There are some excellent specimens of native cows, that we should take to be fine milkers. Two side shows of extra fat cattle invite the patronage of visitors. One of "Lady Hampden," three-fourths native and one-fourth Short-horn, said to weigh 4,060 lbs., and the other of "Gen. Grant," a seven-eighth Durham ox, pure white, reputed to weigh 5,100 lbs., and owned by Carlos Pierce, Esq., Derby, Vt. The show of sheep is very fair, but not so extensive in the Merino classes as might have been expected considering that the fair is held so near Vermont, the paradise of "American Merinos." They are in more than due proportion to the rest of the sheep classes. "Golden Fleece" is here, the marvellous "critter" for which \$15,000 has been offered and refused. One does not know whether to regard the offer or the refusal as the greater piece of folly. The owner of this paragon is Mr. E. S. Stowell, of Cornwall, Vt. Messrs. L. J. Wright, of Weybridge, J. D. Wheat, of Putney, and J. Holden, of Westminster, all Vermonters, also exhibit in this class. Mr. Burdett Loomis, of Windsor Locks, Ct., has a very choice and valuable flock of Cotswolds, fifty in all, and among them some costly importations from Messrs. Garne and Lane, and other noted English breeders of Cotswolds. "Senator," "Sir Robert Napier," and "Duke of Edinburgh" are splendid rams, and are matched by ewes of equal excellence. Mr. Byron Loomis, of Suffield, Ct., cousin of the last named gentleman, is also laying the foundation of a Cotswold flock in some valuable importations which he exhibits. Mr. Sherman Hartwell, of Washington, Ct., has also some good animals of this breed. A few Southdowns of medium quality are shown by Mr. H. L. Stewart, of Middle Haddam, Ct. Mr. Chenery, already mentioned, exhibits a pair of Lincoln sheep, first-prize takers at the Royal Agricultural Show at Bury St. Edmonds. He has also curious specimens of the Caraman or flat-tailed sheep, with huge flat tails weighing thirty or forty pounds; of the Texel or Mouton Flandrin sheep from Friesland; and a pen of very pretty, snow-white Angora goats. Only a few swine are shown, chiefly Chester Whites. There is a pen of Suffolks and another of Yorkshires. The poultry show is very meagre, and only a few of the coops are really good. A patent hen's nest, intended to seclude the hen while laying, is exhibited. When the fowl steps into the nest, a pair of doors, perforated with holes for ventilation, close upon her, and when she steps out of the nest the doors open for her exit. A patent water fountain is also shown, which seems to work well. The patentee of the nest is Mr. Hiram Stevens, of New Haven, Ct., and of the fountain Mr. R. D. Blinn, Lexington, Mass. Before dismissing the live stock, it will be proper to mention that some artificially hatched trout, a year old last April, and averaging a quarter of a pound in weight, are exhibited. Their size surprises every one. Several parties in this country are now engaged in the breeding of trout, and "fish farming" bids fair to take rank beside "fruit farming" and other modern agricultural improvements. The trout exhibited on this occasion were raised in "Cold Spring Trout Ponds," Charleston, N. H. Spawn may be procured at \$8 per 1000, and young trout at \$25 per 1000, A. N. Co., by sending orders to that address.

IMPLEMENTS.

A most varied, extensive, and excellent assortment of agricultural tools, machines, and implements is collected, and the briefest mention of all that is worthy

of notice would convert this narration into a catalogue. To begin with ploughs, here they are of all sorts and sizes, stubble or old ground ploughs, green-sward ploughs, deep tiller ploughs, self-sharpening ploughs, double mould-board ploughs, sub-soil ploughs, side-hill ploughs, gang ploughs, reversible ploughs, prairie ploughs, and last, but not least, the Doe plough, which took the first premium at the New England Fair in 1867 over sixty-three other ploughs that competed with it. The "Ames Plow Company," of Boston (they reject the "ough" mode of spelling the word) are the chief exhibitors of ploughs, and indeed implements in general. Everything they manufacture is of the very best material and workmanship. They have nothing here specially "fixed up" for exhibition. Everything is just as it is kept for sale in their storehouses. We advise Canadian farmers to send for a descriptive catalogue of what this firm manufacture. The Doe plough is made by Whittemore, Belcher & Co., Chicopee Falls, Mass. Collins & Co., of Hartford, Ct., show some very nice cast steel ploughs. All the standard reapers and mowers are here, and among them the actual machine exhibited by Woods at the Paris Exposition, a very highly finished and sweetly working machine. A large and fine assortment of "Clipper" mowers and reapers is shown. We observed nothing new in this department, and do not expect to do so, until some one invents a binding attachment, which we are sanguine enough to believe will yet be achieved. There are plenty of horse-rakes, the only novelty being "Howard's Carriage Revolving Horse Hay Rake," very much the old style of thing, with wheels attached so that the driver may ride. It is exhibited by S. S. Westbrook, of Kingston, Ulster Co., N. Y. Several styles of hay tedders are shown, and this valuable instrument is evidently growing in favour among American farmers. Webb's improved horse-hoe, made by Dunham & Currier, of Bangor, Maine, looks like an effective means of saving hand labour. Horse-hay forks are not so conspicuous as they usually are at these exhibitions. The harpoon fork is the only one that caught our eye. Feed cutters are in great variety, among them one which is a revival of the old lever style of thing, but the arm is all of iron, so giving a heavy down stroke. It is cheap, and said to be effective. Certainly there is no machinery to go out of order. Whittemore, Belcher & Co., before named, show this feed cutter, with many more of costlier make. The "Union Horse Power," exhibited by Ames Plow Co., is a very simple, easily-worked, and efficient tread power, on a much more gradual incline than machines of that kind generally are, thus rendering it less toilsome to the animals put on it. Seed-sowers and wheel hoes are shown by Whittemore, Belcher & Co., and others. A new style of farm dumping wagon is exhibited by the "Dump Wagon Co.," of East Highgate, Vt. It is the best thing of the kind we have seen, and we have inspected several. We shall try to give an illustrated account of this contrivance in a future number, as it is very simple, and capable of being adapted to any ordinary farm wagon. Two novel styles of hand-hoe are shown, one "the adjustable hoe," so arranged that it can be set at different angles to the handle, and the other, "Allen's patent weeding hoe," with a double-edged blade of large saw teeth, said to be "death to weeds." Two inventors exhibit adjustable carriage poles. We prefer the one manufactured by "The Bishop Adjustable Pole Co.," New Haven, Ct. It is strong and well braced, graceful in appearance, and easily fitted to any single or double carriage or cutter. An excellent cattle-tie and ox-bow fastener are shown by an agent of the "Stanley Works," New Britain, Ct.

MISCELLANEOUS.

Dairy requisites have scarcely a place in the exhibition, and churns, which are usually quite a feature at these shows, are conspicuous only by their absence. There is, however, an improvement of the old churn-dash which we think well of. The patent embraces "the hollow-plunger principle," and the "pyramidal, cone, dome, and hat-shape," from which our readers may, perhaps, glean some idea of it. "The Patent Churn-dash Co.," of Hartford, Ct., sell it. An invention of some importance to factory dairymen is exhibited. It is "Peck's Milk Cooler," intended to take the animal heat out of milk as quickly as possible. It consists of a coil of zinc or rather metallic tubing, in a sort of half-barrel tub containing ice water. The milk is passed through the tubing, and the thermometer proved that the animal heat is rapidly and completely removed by this process. Fowler & Barnes, of Northford, Ct., sell this machine. We commend it to the notice of Canadian dairymen, as the simplest and best contrivance for the purpose which we have met with. Several descriptions of farm gates are shown, but there is nothing particularly new in this line. Fruit baskets in great variety are exhibited; among them we like best the venerable fruit basket, made by "The Beecher Basket Co.," of West-

ville, Ct. Nice grape-packing boxes and crates are shown by the "American Basket Co.," New Britain, Ct. "The Atlantic Water Elevator" is a great improvement on the well-known chain pump, by which the tubing is dispensed with, and the water brought up in small galvanized iron buckets, which alternate with long links in the endless chain. A. Austin, Norwalk, Ct., is the maker of this elevator. J. Harris & Son, 76 Kingston St., Boston, exhibit beautiful gilt weather vanes in great variety, suitable for barns, churches, and other public buildings. A patent grapple with a holder, which can instantly, and without a ladder, be attached to a beam or rafter for elevating purposes, is shown by Hawley, McClure & Co., Utica, N. Y. Galvanized iron trellises, neat, light, and pretty, for garden use, are exhibited by W. W. Wilcox, Middletown, Ct. All carriage-makers, and everybody who, owning a wheeled vehicle, would have it run without noise and excessive play at the wheels, will do well to make a note as follows: "Raw Hide Washers, for sale by the Darrow Manufacturing Co., Bristol, Ct." They are the very thing; cheap, solid, absorbing oil enough to lubricate them sufficiently, and yet not softening as ordinary leather ones do. They are made all sizes, from that of the smallest buggy axle to three and a half inches outside diameter, and cost from \$2 to \$4 per gross, American currency. The same company make untanned leather doll heads, that look as nice as wax and will bear any amount of knocking about by rumbustial babies. Housewives, attention! here are a few items worthy your notice. A suspension egg-carrier for sending eggs to market, or keeping them at home—each egg being suspended by itself in a little calico bag. We, unfortunately, omitted to make a note where this contrivance is to be had. "Excelsior bread and meat cutter," which cuts a round of bread, cake, or beef-steak, smoothly and of uniform thickness, with mathematical precision. Sold by Corbin and Tarbell, Worcester, Mass. A patent mincing knife, which gives not only the guillotine stroke, but the drawing stroke. This is a very nice kitchen tool, price \$1.50, and made by Ketchum & Lond, Winchendon, Mass. A more costly affair for larger mincing and chopping operations is made by the "Athol Machine Co.," Athol, Mass. "Davis' Patent three minute Cake Mixer" is advertised as "the last sensation." For confectioners, hotels, and large families, it would be very valuable. It is sold by J. H. Rowland & Co., No. 192, State St., New Haven, Ct., and costs from \$3 to \$5, according to size. The "Common Sense Nutmeg Grater" prevents rasped fingers and waste of nutmegs. It may be had of T. Smith, Jr., 63 Union St., Boston. "Russell's Patent Fruit Seeder" takes the stones out of cherries and the seed out of grapes instantaneously. Made by Dow & Sprague, Birmingham, Ct., price \$1.50. A new peach paring machine, which will pare potatoes to a charm, is shown by D. H. Whittemore, Worcester, Mass., price \$10 per dozen. "Jeffrey's Reversible Griddle" is a very ingenious contrivance for turning batter cakes to a dead certainty "as you like it." Address E. A. Jeffrey, Trappe, Talbot Co., Md. Leaving the kitchen and going out of doors, we would call the attention of quarrymen and stone-masons to the "Little Giant Stone Drilling Machine," which drills away at granite very much as a wood-boring machine would do at an oak log. It is to be had of Her range & Ostrander, Schuylerville, Saratoga Co., N. Y. Blacksmiths would do well to examine "Stephens' Parallel Vice," sold by Messrs. Stephens 91 Liberty St., New York.

In closing this detail, we may add that there is no show of grain, seeds, roots or vegetables; the display of fruit is meagre; the exhibition of flowers no way remarkable; there are no bee-men lecturing on hives and bee-charms; and no dairy products are to be seen. An address by Dr. Loring, President of the Society, and two evening discussions, one on the "Breeding of Cattle," and the other on "Farming as a Business," were interesting and instructive, but we must not attempt even the briefest synopsis of them.

Stray Notes of Travel in the United States.

[EDITORIAL CORRESPONDENCE.]

New York, Sept. 8, 1868.

OUR former communication closed with some account of that rural glory of New York, Central Park, and as the subject was by no means exhausted, it may not be amiss to resume it, so far at least as to make a few remarks on parks and avenues in general. It is said that a Park-making *furor* prevails all over this country at this time. 'Tis well. Worse *furors* might prevail. May this one cross the lines and have a powerful run in Canada! It is much needed. Our towns and cities might have rare sylvan beauty very

easily, if our people would only take some little trouble in the matter. The chief feature in parks and avenues is trees, and this can readily be secured. If every owner of a village, town, or city lot would but plant trees in front of his property, how soon would there be "beauty all around." Brooklyn is vying with New York in park making. Prospect Park in Brooklyn tries to rival Central Park in New York; but while very beautiful, and scarcely less extensive, it lacks some natural advantages possessed by Central Park. But Brooklyn certainly beats New York in the matter of avenues. New York has nothing that approaches Clinton Avenue in Brooklyn. It is a gem of rural beauty, broad, with spacious flag-stone walks, wide, well-kept grass borders; and rows of magnificent trees. On either side, well back from the front fence, are palatial mansions, with flower gardens, conservatories, and shrubberies about them. Here dwell merchant princes and millionaires, but the poorest individual in the city can walk beneath these majestic trees, and feast on all this floral and herbaceous loveliness. At the present time, a flowering shrub, almost attaining tree proportions, and commonly known as the "Rose of Sharon," is in full bloom, and very beautiful it is. The flowers are large, bell-shaped, and of various colours, not unlike the hollyhock, and like it both single and double. There is also a magnificent white lily, with large, long trumpet-shaped flowers, in full bloom, which is a very showy, attractive object in these gardens. Creepers are largely grown, tropæolums and the cypress vine seeming to be favourites. Ivy may be seen creeping up some of the buildings, as though it wintered out of doors here. No doubt the near vicinity of the ocean modifies the climate considerably, and enables things to be grown which cannot be cultivated out of doors on the same parallel of latitude inland.

Large numbers of goats are kept in the suburbs of New York and Brooklyn, mainly for their milk, though they are driven in children's carriages, making a very pretty appearance, while not a few, owned by the poor, draw carts laden with swill and offal. It is said that an enterprising individual is going to start a "goat livery" close to Central Park, and hire out goat carriages for children to take drives in. We are satisfied, after experimenting for three years with them, that goats are well worthy of being kept for milking purposes. If goats of good milch stock are obtained, their yield of milk is by no means inconsiderable in quantity, while its quality is so rich that it may be diluted one-third with water, and still be equal to cow's milk. For invalids and delicate children, goats' milk is invaluable, as it possesses some peculiarly nutritious quality, desiderated by such as are low in vitality.

The office of the *American Agriculturist*, now removed to larger quarters on the opposite side of the City Hall Park to that on which it used to be located, is well worth visiting. The premises are very extensive, and divided into departmental offices. Besides the business of the paper, the circulation of which is something fabulous, a large trade is done here in agricultural and horticultural publications. Messrs. Orange, Judd, & Co., the proprietors of the *Agriculturist*, publish largely themselves this class of books, and also keep in stock the issues of other houses in the same line. So many works of this description are now extant, that an extensive and costly farmer's library can readily be made up of them. The second story of the *Agriculturist* building is occupied by Messrs. Whitlock & Co., as a general Horticultural Agency. Here a free fruit and flower show is constantly going on, and every Thursday afternoon a horticultural meeting is held for the discussion of questions interesting to professional and amateur gardeners. The discussion is preceded by the reading of a paper on some subject previously chosen. We attended one of these discussions. A paper on "The Profits of Fruit-growing" was read by Mr. A. S. Fuller, author of a little work on "Small Fruit Culture." A well sus-

tained discussion followed. Fruit culture seems to be one of the topics of the day here. Many persons have gone into what is called fruit-farming, and find it pay well. There is a vast unlimited market here for fruit. The more that is raised, the more the demand increases. In our last communication we spoke of Bartlett pears bringing two cents each. We have since seen them sell at twice that price; and at the discussion above referred to, it was incidentally mentioned that any quantity can be sold in Boston at twenty-five cents a piece. No such prices could be got in Toronto or Montreal. Canadians are a beef-eating, and Americans a fruit-eating people. Market gardening and fruit-growing are by no means money-making businesses in Canada. The reverse is true here. In the vicinity of all the larger American cities, there are numbers of people who are getting rich by raising vegetables and fruit for the markets.

An enterprising company, the head of which is Mr. S. N. Pike, proprietor of "Pike's Opera House" in this city, have undertaken the reclamation of extensive flats just across the North River from New York, and in the adjacent State of New Jersey. These flats comprising several thousand acres, have been a hitherto wet and marshy, yielding only a very coarse description of hay, and therefore, were considered of very little value. The tract has been purchased by the "Iron Dyke Company," as it is termed, at a very low figure. It is being protected from the river by a levee or dyke, which consists partly of dirt, and partly of a continuous plate of iron. This contrivance prevents leaks in the dyke being occasioned by the operations of moles, muskrats, &c., and affords great support to the mound of earth. The dyking is to keep out the tide water; the ordinary height of the river is below the level of the land. When the dyking is finished, it is intended to dry the land by cutting ditches, guarded at the outlets by sluices which can be shut at high tide and opened at low tide. A portion of the tract is already finished, and has been cultivated the present season, and it is expected that there will be 1000 acres ready for tillage by next spring. It is the intention of the proprietors to lease this land, which they can do at \$100 an acre. The soil proves very rich, and well adapted to gardening purposes, to which it is expected the whole area will be devoted when it is ready for use. The cost of these improvements will not bring the outlay on the land higher than \$150 or \$200 an acre, and already the company has been offered \$500 per acre for portions of it. This is what Americans call a "big thing." It is so in more sense than one. It will add considerably to the market-gardening capabilities of the region adjacent to this great city, promote the healthfulness of the city and environs, lessen the number of mosquitoes, which are very numerous and savage, as we know to our sorrow, and bring a golden stream of wealth to the coffers of the fortunate individuals concerned in the enterprise. Moreover, it will lead to similar undertakings in the vicinage of other large cities, and will bestow on them like benefits.

We spent an entire afternoon in that most beautiful city of the dead, "Greenwood Cemetery." To do this noted spot anything like justice, we must devote a whole article to it some time. At present we find it necessary, much against our will, to dismiss it with a paragraph. Nature and art have united here to ameliorate the repulsiveness of death and the grave with wonderful success. It is difficult to realize that it is a burial place, for you feel continually that you are in a lovely park crowded with statuary. The ground is full of natural undulations, which have been turned to the best account by skilful landscape gardening, and so there are hills and vales, mounds, nooks, dells and sequestered places, with carriage-drives and foot-paths gracefully winding in all directions. Every spot partitioned by roads or walks is named, as are all the avenues, alleys, and paths, each having its designation very neatly shown on a small guide board, supported on an iron pedestal or stand. Deciduous and evergreen trees in every style of leafy beauty adorn these grounds, and make them far more a scene of life than of death. Many of the monuments are exquisitely chaste and elegant. Massachusetts and Aberdeen granite marvellously polished, marble of every description, and stones in such variety as might puzzle a geologist, are here, built into mausoleums, sculptured into stone pictures of the dead, read in lofty columns, or employed as humble and simple memorial tablets. Several might be enumerated were we giving a detailed account of Greenwood, suffice it to say that, of all we saw, nothing so thoroughly pleased us as a costly yet simple structure in white marble, recently erected by James Gordon Bennett, of the *New York Herald*. It stands beside three dead graves, and the subject is a mother in modern attire, the sculpture showing the silk finish of her dress and the very figuring on her lace shawl, lingering at the spot, and looking cheerfully upward as three cherub forms ascend heavenward. The entire conception and execution form a master-piece for a Christian burial place.

The main entrance to Greenwood Cemetery consists of a very noble gateway, embracing a series of arches, having over them, in bas relief, Scripture scenes, such as the "Raising of Lazarus," &c. As you ascend the hill from the main entrance you have a fine view of the river, shipping, New York, &c., and farther on in the grounds you get very beautiful glimpses of these objects. In one place, called "Ocean Hill," you behold in the distance a very charming sea-view.

Much too hurriedly we must make a brief note of a visit to the farm of Rev. Henry Ward Beecher, at Peekskill, N. Y. We spent an afternoon there very pleasantly in the society of the gifted proprietor and his interesting family. Mr. Beecher's farm consists of thirty-six acres, having a narrow frontage, and sloping up a considerable distance from the stretch of table land below, so that it commands a fine panoramic view of the picturesque region about Peekskill, and takes into the scenery a beautiful sweep of the Hudson river. The buildings consist of the original farm house, somewhat improved since it came into Mr. Beecher's possession, and forming a comfortable but unpretentious family residence, and a large, handsome barn, roofed with variegated slates, and evincing the taste at once of the architect and owner. Mr. Beecher cultivates his domain in the meantime as a vegetable and fruit farm, and it reflects no small credit on his management that last year the sales off it amounted to \$3,600. An average of \$100 per acre. *Per contra* must be reckoned the wages of seven men during the working season, outlay for manure, team expense, &c. Mr. Beecher is a better and more practical farmer than we expected to find him. He understands the theory and principles of agriculture thoroughly, and is making intelligent application of them on his little estate, which he is managing not so much for the sake of present profit, as with an eye to making a pleasant home when he retires from active ministerial duties. Most of his land has been thoroughly stirred to the depth of fifteen inches. It is thoroughly enriched with barnyard and artificial manures. Apple, pear, plum, and peach orchards are planted, and a large vineyard set out. These are protected by evergreen screens and hedges, or rather will be when the young trees become large enough. Shade and ornamental trees are growing up to adorn a spot which already possesses extraordinary attractions, and will be a delightful place when the owner's plans are carried out. Mr. Beecher has large plantations of strawberries, raspberries and blackberries, grows early potatoes, lima beans, melons, "ruta bagas," and sweet corn extensively, and has not only a bright and beautiful array of flower-beds close to his house, but it seems to grow them promiscuously all over his farm. A good-sized patch of "ruta bagas" (or Swede turnips, as we should call them,) is fringed with three rows of dwarf asters which are just coming into profuse bloom. Mr. Beecher is passionately fond of flowers, and likes to have them wherever he is, even in the parlor. We were glad to learn from him that his example of high farming is doing his neighbours good, and that a perceptible improvement has taken place, since his advent, in the style of husbandry about Peekskill. Such will always be the effect of growing uniformly good crops through the combined application of liberal manure and skilled labour.

Distress in Red River.

In consequence of the ravages of grasshoppers, the North-west Territory of Red River is almost destitute of crops, and serious apprehensions are entertained in regard to the food supply for the coming winter. The *North Western* contains an appeal for help to friends in England, Canada, and the United States. We feel assured that this call upon the sympathy and benevolence of those who have during the present year received in such large measure the bounty of Providence will not be made in vain. Meetings have already been held in Toronto, Hamilton, and other cities of this Province, to take the subject into consideration, and active measures are being taken to raise funds to relieve as promptly as possible the wants of the sufferers by this great calamity. In former years the abundance of buffaloes in the territory has mitigated the effect of any scarcity in the crop, but in consequence of the dispersion of these wild herds, resulting from the increasing occupation and settlement of the land, this source of relief is now cut off. We heartily commend the case of our fellow-countrymen to the good feeling and liberality of the farmers of Canada.

Literary Notices.

The American Entomologist.

Edited by Messrs. Benj. D. Walsh, Rock Island, Ill., and C. V. Riley, St. Louis, Mo.; published monthly by R. P. Studley & Co., No. 104 Olive Street, St. Louis, Mo. No. 1, September, 1868. Price, \$1 per annum.

We gladly welcome the revival, in another form, of that most useful periodical, the *Practical Entomologist*, whose untimely demise we lamented not long ago. The present undertaking, though similar in its objects, is now being carried on under the auspices of no society, but entirely as a business enterprise, by business men, and upon a business footing. With two such men for editors as the State Entomologists of Illinois and Missouri, who have been well known to the scientific world for their writings and investigations, and to the agricultural world for their practical work, the one in the periodical above mentioned, the other in the *Prairie Farmer*, we do not doubt that the proprietors will find their enterprise a successful one, while the farmers and gardeners of the continent will glean from its pages information that will save their pockets, collectively, many thousands of dollars per annum. The first number, which is now before us, consists of twenty large octavo double-column pages, well and clearly printed, and illustrated with nine wood-cuts from the pencil of the junior editor. All the numbers are to be well illustrated, and it is the intention of the publishers to furnish at least one coloured lithographic plate in addition with each volume. The contents of the present number are varied and interesting, and written in an easy and lively style; the first article, which is of an introductory character, proves most conclusively the need of such a journal, and the importance to all of the practical study of the nature and habits of insects. The following sentences, which, considering the devastation of such a wide extent of western country by locusts this year, (witness the appeal for aid from the Red River Settlement.) we do not believe to be exaggerated, are sufficient of themselves to prove this:—"We are certainly speaking within bounds when we assert that, taking one year with another, the United States suffer from the depredations of noxious insects, to the amount of THREE HUNDRED MILLIONS OF DOLLARS. We by no means maintain that it is possible by preventive measures to save the nation the whole of this gigantic sum; but we do contend and firmly believe that it is perfectly practicable, by long-continued observation and careful experiment, to save a considerable percentage of this enormous sum total. It may, and probably will, take many, many years of hard work in the field, and anxious deliberation in the closet, to arrive at such a result; but in the meantime every step that is gained in advance will be so much money saved to the community. Suppose, for example, that during the next two or three years preventive measures should be discovered by which the total annual damage inflicted by insects is diminished only to the amount of one-half of one per cent. Then, according to the data above given, the nation will gain annually, for all time, to the amount of ONE MILLION AND A HALF DOLLARS!"

We are requested to state that, as before, in the case of the *Practical Entomologist*, persons in Canada desirous of obtaining the *American Entomologist* can procure it, postage free, on remitting one dollar to the Rev. C. J. S. Bethune, Secretary to the Entomological Society of Canada; the difference in exchange pays both the American and Canadian postage.

INDIAN CORN—Its value, culture, and uses, by Edward Enfield, published by Appleton & Co., New York.—This is a complete and highly practical treatise on the culture of Indian corn. This impor-

tant grain is not grown in Canada to the extent to which we believe it might be with advantage and profit. The soil and climate in certain sections of the country are well adapted for this noble cereal, and we hope to see it more extensively cultivated by Canadian farmers. We commend the above work to their attention. The subject is treated concisely, yet very fully, the following being the principal topics successfully treated: Varieties; adaptation of varieties to soil and climate; average yield and productiveness; selection and preparation of seed; planting, after cultivation, harvesting, and storing; enemies and diseases; stalks and leaves as fodder; and finally, its various uses and economical value. The agents for the sale of the work in Canada are Messrs. Adam, Stevenson & Co., Toronto.

THE COUNTRY GENTLEMAN'S MAGAZINE.—We have received, from England, the first number of this new monthly periodical. It is a handsome magazine, octavo size, beautifully printed, with clear and large type, and containing 180 pages of valuable and interesting matter. With this is incorporated the *Journal of Agriculture*, an old established magazine of the highest standing. Most of the articles are reprints from the *Farmer*, (Scottish), a very convenient way of preserving in suitable form the most important and permanently useful matter of that foremost in the rank of British Agricultural journals. The letterpress is illustrated with well-executed engravings, and the whole would form, at the end of the year, a goodly volume of agricultural literature.

WHITLOCK'S HORTICULTURAL RECORDER.—The August number (No. 2, vol. 2) of this publication is full of valuable information on horticultural matters. There is appended a prospectus and catalogue of the "Perpetual Exhibition, or Agricultural Bazaar," referred to in our Editorial notice of the establishment of the *American Agriculturist*.

ELLWANGER AND BARRY'S DESCRIPTIVE CATALOGUE OF FRUIT.—This catalogue, just received from the proprietors of the Mount Hope Nurseries, Rochester, New York, contains, as usual, a very full list of fruits adapted for the United States, and most of them are well suited for our Canadian climate.

O'KEEFE & SON'S CATALOGUE.—We have also received from M. O'Keefe & Son, of Rochester, a Catalogue of Fruit Plants and of Dutch Bulbous Flower Roots—complete and excellent lists.

Agricultural Intelligence.

Agriculture in Scotland.

HILL FARMING—BALMORAL—TREE PLANTING—TURNIP CULTURE—LOWLAND FARMS, &c.

To the Editor of THE CANADA FARMER:

SIR,—I wrote you last from Aberdeen, immediately after the exhibition; since then I have enjoyed the opportunity of seeing a large portion of Scotland, and of having much personal intercourse with farmers and others engaged in the various industrial pursuits of life. I have attended several markets, fairs and local shows, affording me the means of much valuable information, and also of imparting information respecting the resources, &c., of Canada, in which I found great interest manifested in several localities.

"Hill-farming," as it is termed in the more mountainous districts of Scotland, presents many points of interest to a lowlander or stranger. The extent of such farms is often estimated by the amount of cattle and sheep they will maintain, and not by the number of acres they contain. In some parts of the Highlands it requires two or three acres to keep a sheep all the year round, and it is surprising to find how large an area one shepherd, assisted by his wonderfully sagacious dog, can manage to superintend. These dogs, which are generally well trained, are indispensable among these hills and rugged precipices in the manage-

ment of sheep, and are in fact of much greater service for such purposes than men. In fine weather sheep-farming in the Highlands is a very pleasant and healthy occupation, but like most other pursuits it has its dark side; the rain and snow storms common to these regions at certain seasons, render the shepherd life one of much anxiety, and sometimes even of privation and hardship. In extreme cold and boisterous weather the sheep are collected in the lower grounds, and temporary protection afforded them, and, perhaps, a little hay, turnips, &c., given them; but as a general rule, they have to forage for themselves all the year round, and, with proper attention, it is surprising how well they do. The black-faced or heather sheep is the breed that universally prevails through all the higher districts. They are beautiful-looking animals, horned, the males most gracefully so, extremely hardy, slow growers, and yield the best mutton in the world. They subsist on the coarse grasses and heather of the hills, and the flavor of their flesh is peculiarly savoury, with an exquisitely short and tender fibre, when kept for a few days. I more than once partook of mutton from four years old wethers, by far the finest I ever tasted in my life; much superior to the Southdown, and even to the Welsh mountain breeds. This high degree of excellence, I was informed, could only be attained in animals fully matured by age; a rule that obtains in other of the domestic animals besides mountain sheep. The West Highland cattle are beautiful little creatures, and their beef is of very superior quality, fetching, with the mutton, a higher price to the extent of a penny or more a pound than the larger and coarser breeds, in the London and other English markets.

In the Western Highlands, where the climate is excessively humid, and sheep suffer more from wet than cold, the practice of surface draining the slopes of the hills has been introduced with very salutary results. Small furrows are made by the plough or spade, according to the inclination of the undulating surface, so as to give the water that falls in showers a more ready exit into the lower or natural channels of drainage. This is found to render the surface drier and warmer, to induce the growth of grass of a better quality, and prevent, or at all events mitigate the foot rot. It is a common practice to set fire to the heather when it gets old and scrubby, thus inducing a new growth, which is much coveted by sheep. In some of the lower slopes I learnt that the application of quick lime had been found most beneficial to the natural pastures, sweetening and improving the herbage, both as to quantity and quality, in a high degree.

Your readers will form an idea of the extremely small area capable of cultivation in some parts of the Highlands, when I state, that on Her Majesty's estate of Balmoral, consisting of upwards of 20,000 acres, I was informed that scarcely 500 admitted of any kind of cultivation. Besides the rather extensive ornamental plantations immediately around the castle and the adjoining permanent pasture, I observed only a few acres of oats and turnips, both of which were suffering much from the effects of drought on a thin gravelly soil. The dairy consists of eighteen cows, of the Ayrshire breed, which I did not see, as they were in the woods, for want of grass in the pastures. The dairywoman, as well as her husband, was very intelligent, and quite disposed to afford me any information. The dairy is a small, but very suitable building, rather elegantly fitted up, but all its parts quite in keeping with the object it has to serve. There is no kitchen or fruit garden of any consequence at Balmoral, the soil and climate being naturally unsuited to such purposes.

In these higher districts only a little rye, oats, and barley are grown, and even these crops are in some seasons quite uncertain. Wheat is never attempted. Potatoes and turnips do pretty well. Hay is the most important crop, and is produced of pretty fair quality in the narrow valleys. As an instance of the peculiar character of the present season, I may observe that I

saw oats and barley nearly ready to cut in the middle of August, full six weeks before the ordinary time. Indeed there are in most years portions of grain crops standing in the more exposed situations, after snow has commenced falling. One farmer told me he did not harvest his small quantity of grain in good condition more than one year in four, and that he looked more to the straw than to the grain.

Having heard and read much about the planting of the Highlands with fir, larch, &c., with a view to shelter and profit, I must confess to a feeling of disappointment on the first view. The trees on the higher elevations presented a scrubby and unthrifty appearance, but in lower situations, where the soil is better and shelter obtained, the conditions are more favourable, and in most localities artificial planting can be, no doubt, carried on with success and profit. The planting of wood very much enriches the landscape, and improves the climate, rendering the country more comfortable and salubrious for both man and beast. On the extensive estates of the Duke of Athol many thousands of acres were planted with the larch fir principally, more than half a century ago. Many of these woods appear to be in a thriving condition, and large quantities of excellent timber have already been taken from them; while there are others I thought in an almost non-progressive state. I was told that of late years a worm had been doing considerable mischief, and that several acres of trees, in some places, had actually died. No antidote has yet been discovered.

Scotland presents most remarkable illustrations of the connection between the physical conformation of a country and the industrial pursuits of its people. The Highlands proper, are by soil and climate forever destined to the pasturage of hardy sheep and cattle, and can only support but a very sparse population; while the lower and richer grounds of the South, including portions of the East, abounding in some localities with coal and iron, afford the means of ample support to large numbers of people busily engaged in the various industrial pursuits of agriculture, manufactures and commerce. In travelling over the country one is struck with the ever varying face of nature, and is forcibly reminded how much the composition and productions of the soil, and the nature of the pursuits of the people in the present day, are the results of physical forces operating on the crust of the earth through long ages of the mysterious past.

I had the pleasure of spending two or three days in the County of Fife, principally with Mr. Robert Russell and friends, near Leven. Mr. Russell, some years ago, spent several months in the United States and Canada, and published the best book for practical purposes ever written, perhaps, on America. I had a beautiful drive through a portion of the eastern section of the county along the coast, where there are some excellent specimens of farming. The soil is generally good, in some places very rich, fetching high rents,—say from £2 10s. to £4 per acre. Most of the grain was cut, and the yield of wheat estimated at from forty to sixty-five bushels an imperial acre. Spring grain was, in consequence of the drought, under an average, the same of root crops, though I found turnips in Scotland much better than in England, particularly the south, where they are generally all but an absolute failure. The present season affords a very useful lesson in regard to turnip culture, clearly demonstrating that the mechanical condition of the soil is of the utmost importance. Much of the arable land of Scotland is warm and friable, formed by the disintegration of the primitive rocks, and, with the climate, naturally adapted to turnip culture. But even here turnips appeared patchy in fields where the texture of the soil, and consequently the cultivation, was not uniform; while upon the heavier soils of many parts of England a sufficiently fine and deep till could not be obtained, and the consequence was that during the severe drought the

seed never germinated. The showers that have recently fallen have, however, caused germination to commence, but too late to produce a crop. On soils that are friable and well worked, a fair crop of Swedes will probably be produced. Farmers who fail to grow turnips on unsuitable or badly prepared soils, are apt to attribute the result to bad seed, rather than to their own neglect or want of judgment. Mangel-wurtzel is but little cultivated in Scotland, the average heat of the growing season not being generally high enough to develop sufficiently its saccharine quality.

I felt greatly disappointed in not finding Mr. George Hope, of Fenton Barns, at home, having anticipated much pleasure in some personal intercourse with so distinguished an agriculturist. I went over the farm, however, with his reeve, Mr. Bertram, a thorough agriculturist of the practical school, who was disposed to give readily any information required. Mr. Bertram has three sons settled in Ontario, and has visited the Province himself, and thinks highly of its condition and capabilities. Mr. Hope farms about 1,000 acres, and no one can give even a cursory glance, without being convinced that the operations of this fine and extensive farm are conducted on the most approved principles of improved husbandry. The soil is among the best in East Lothian, a district renowned for its great productiveness. The farm has been in the same family for two or three generations, and very important permanent improvements have been made, from time to time, by way of draining, straightening fences, &c. A steam plough with cultivating apparatus has been introduced with the most satisfactory results, diminishing horse-power more than fifty per cent., and ensuring an early and well prepared seed-bed. The wheat crop was very heavy, all cut and ready for stacking, but the recent heavy rains had retarded progress,—sprouting even had actually in some places commenced. The period was critical, and farmers were looking to the immediate future with considerable anxiety. Mr. Hope keeps a first-rate Shorthorn bull, which serves selected cows, in most of which the same blood predominates, producing stock of rapid growth and large size, profitably adapted to the butcher. There are on the farm some excellent pure bred Leicester sheep; but half-breeds, that is, a cross between the Leicester, Cheviot, Lincoln, or some other sort, predominate in this and other districts of the Lowlands. In travelling through this fine section of country one is struck with the novel appearance of a tall chimney in almost every farmstead, the motive power in threshing, cutting straw, &c., being generally steam. Mowing and reaping are principally done by machines, as is now the case in many parts of England. Samuelson's reapers, with self-raking and delivery apparatus, appear to be the most generally used. Some of your readers may not be aware that the original inventor of the reaping machine is a Scotch clergyman still living; but Mr. Bell's machine, which is propelled by horses from behind, though it does excellent work, is of heavy draught and but little used. The members of the Highland Society, and others, recently presented Mr. Bell with a testimonial, consisting of one thousand pounds, as a mark of respect for his character and the great worth of his invention. I believe this gentleman resided in Canada for a while, many years ago, as tutor in the family of the late Hon. Adam Fergusson, of Woodhill.

In looking back on the history of British agriculture in the present century, there can be no doubt that the formation of the Highland Society was an important starting point in the process of the art; and that the exhibitions and proceedings of that, which may in strict truth be termed the parent society, have exercised a most beneficial influence on British agriculture, and that of the numerous colonies and settlements in connection with the mother country. I left Scotland with regret, my time being far too limited, and with a deep sense of the intelligence and character of the people.

As one travels from north to south, even if it be but three or four hundred miles, a marked difference obtains in the time of performing the more important operations of the farm. When I left Scotland the farmers were in the midst of harvest—very little had been secured; but on reaching the great central plain of Yorkshire, only here and there a late sown field had the grain uncut, and in the south and southwest the crops had been secured for nearly or quite a fortnight, and in capital condition. But little threshing has yet been done, and from all I can learn where that decisive test has been applied, the wheat crop promises to turn out abundant—considerably, I should think, above an average. I have met with a few instances of the threshing not fully coming up to previous expectations; these, however, will probably prove exceptions, not the rule. Spring grain on good soils, with a fine, deep till, will afford a fair yield; but all late sowings with indifferent culture,

cases by no means rare, will be very deficient, or an absolute failure. The recent rains have already produced a marked change in the appearance of the pastures, which only a few days since were as brown and bare as a turpike road; they are now assuming a beautiful green—grass is beginning to grow, and farmers have a prospect of abundance of keep through the autumn. This will have a desirable effect on the price of sheep and cattle, which of late have been much depressed in value. I hear but an indifferent account of the state of the hop plantations, many of which have rapidly gone off during the past few weeks; but as I expect to be in the south in the course of a few days, I will defer further remarks till I have had the opportunity of personal observation.

GEO. BUCKLAND.

Peterborough, August 26, 1868.

FALL SHOWS.—The Fall Show of the East Elgin Agricultural Society will be held at St. Thomas, on Tuesday, the 6th of October.

A joint Show of the West Riding of York and Township of Vaughan Agricultural Societies will be held at Burswick, on the 20th and 21st of October. As an inducement to the sons of farmers, they offer \$12 for the first, and \$8 for the second-best essay upon "Practical Farming," to be the composition of a resident of the County, practically engaged in agriculture, and under twenty-one years of age; the essays to be forwarded to the Secretary on or before the 15th of October next, the essay to become the property of the Society.

Hay is being exported from Montreal for the English market.

Upwards of 4,000 sheep infected with small-pox, or sheep pox, have been received in England from the continent; in consequence of which, an Order in Council has been passed providing for the inspection and quarantine of all foreign sheep before admitting them into the English market.

WHEAT PREMIUMS. Messrs. Moore, Footo & Co., of Detroit, have offered the Michigan State Agricultural Society the sum of \$400, to be given in premiums, for the best fields of white winter wheat grown in Michigan. The Society have accepted the donation, and announce three prizes, of the sums of \$250, \$100, and \$50 respectively, for the three best fields, consisting of five acres each, of white winter wheat, sown this fall, and harvested in 1869.

BREEDING HORSES IN AUSTRALIA.—Two Australian horses, "Fish Hook" and "Marchioness," were sold during the week ending 23rd of May last, to Mr. Hunter, who buys for the India Market, the price being for the two £1,500 sterling—upwards of \$7,000. The services of a favourite horse, "Ace of Clubs," son of "Stockwell," are advertised at twenty sovereigns. A race-horse breeder and turf man, D. L. S. Smith, is just disposing of his farm of one hundred and thirty-six acres, and thirty head of horses, mares, and colts, by lottery, at £5 sterling per share in 1,000 shares.

NEW YORK GRAPE GROWERS' ASSOCIATION.—ANNUAL FAIR.—The first annual exhibition of the New York Grape Grower's Association will take place at Canandaigua on the 7th and 8th of October. The exhibition will comprehend the Grape, its products and the implements which pertain to its culture, gathering, preparation for market, and manufacture into wine or brandy. Grape growers and manufacturers of wines, brandies and implements, from all parts of the Union and the British Provinces, are invited to become exhibitors and competitors. There will be a meeting on the evening of the first day of the Fair, during which the following subjects will be discussed: 1. Soils, and their preparation for planting. 2. Varieties, and their adaptation to soils and localities. 3. Pruning, and the season in which it should be done. 4. Best mode of trellising. 5. Over-cropping, and its consequences. 6. Renovation of worn-out vineyards. 7. Marketing. 8. The benefits of the grape and its products on the health of the people.

The Apiary.

The Koehler Secret Revealed—A New Mode of Propagating Ligurians.

MR. KOEHLER has recently made his process public in the following article, which appeared in the *German Bee Journal*:—

Now as to the operation itself. It is founded on my observation, that during many fine forenoons and afternoons the air is still warm enough for queens to fly out when drones usually have not commenced flying, or have ceased to take wing. Until, therefore, the young queens become fertilised we must compel the Italian queens and drones to go forth at such times as the German drones cannot possibly be abroad. The time during which drones are on the wing seldom extends with us to later than 4 or 5 o'clock P.M. If, therefore, we have one or more colonies, with young queens which we know to a certainty have not yet been fertilised, we place these hives for three, four, or five days in a perfectly dark and cool cellar, and with them also the stock which contains the Italian drones. Whenever a very warm and sunny day occurs, we watch the German stocks until the drones have ceased their flight. As soon as this occurs we restore the hives containing the Italian queens and drones to their accustomed stands, and set them at liberty after giving to each a cupful of their liquid honey. The queen and drones being ardent, and having been unable to fly for days, the bees excited by the honey and their previous confinement, become so eager after flight, that all play as if mad, and fertilisation follows. We must, however, be careful to return to the cellar in the evening every colony the queen of which has not been seen to return with the sign of fertilisation, and repeat the process until it is certain that the desired result has been attained. This is essential, because it is well known that under ordinary circumstances some queens take flight several times before they succeed in meeting with a drone. How much more, therefore, must this be the case under the foregoing management, whereby the number of available drones is limited to those only which exist in the few Italian stocks?

But now I will make a second communication, which will certainly also be agreeable to you. I do not know whether you give the preference to natural or to artificial swarms. My practice combines both, as by it I obtain natural swarms by an artificial process, and can at the same time with one good Ligurian stock Italianize a dozen colonies with the least possible trouble. The process is as follows:—We take a hive from which a swarm has just issued, and put it in the place of another very populous colony. After nine days, by means of the population received from the removed hive, it will certainly swarm again. If it is now shifted to the stand of another strong stock, it will, after two or three days, swarm again. We continue this process as long as we can hear queens piping in the hive of an evening. Under favourable circumstances we may in this way obtain ten to twelve swarms, as the first hive supplies the queens and the others the bees. If, therefore, we have one or two Italian stocks, and feed them well early in the spring, say from the 20th of March, especially if they are well supplied with pollen, we may be sure that these hives will swarm first. By transposing them in this way with German stocks we shall obtain swarms with Italian queens and German bees.

The advantages offered by my system are very great. In the first place we secure early swarms with young queens, and these queens are generally larger and better than those which bees hatch by compulsion. How quickly also can we Italianize a hive; for it is only changing places with two hives and the work is done. We can also put the swarms in any place we choose, which is less trouble than with artificial swarms, which we cannot always establish where we would wish to have them. We know also the day and the hour in which to expect a swarm, for the second appears in nine days after the first removal, the third three days after this, the fourth on the next day, and so on. If we still hear queens piping after the last removal, the stock will swarm to-morrow, and if we convey it into a dark cool cellar in the evening, we can cause it to swarm at any hour we please by bringing it out into the light and sunshine, and feeding it moderately.

It follows, as a matter of course, that the foregoing method can only be practised with single hives, which can be moved from place to place although they may have fixed combs. Those who have bee-houses can, however, adopt it, because they can transfer their hives from one place to another.

I have still to add one remark:—The process for securing pure fertilisation can only be relied on early in the season, and not towards the end, for it

often happens that certain stocks which have hatched young queens will, as soon as they are fertilised, begin to expel their drones, as I have observed to be the case this year. In such instances the drones do not cease flying so punctually as usual, but often continue on the wing from early in the morning until quite late in the day. We must not, therefore, be too late in breeding Italian queens, and liberal and judicious feeding is and will be the surest means of expediting it.

In the hope that you will be enabled to make experiments, the results of which may not be marred by any unforeseen accident, and desiring that you may be satisfied by experience of the value of my method, I am, &c., KOEHLER.

BEES.—One of our correspondents in this city sends us the following:—The deficiency of flowers in Toronto gardens has driven the bees to the sugar factories. At Hessin's Sugar Bakery, on King street, these industrious insects may be seen as thick as flies are ordinarily in such situations. They go in and out of the workshop, and no doubt appropriate every morsel they can get at. Immense numbers are killed, but it does not seem to thin the comers. Query.—Do bees, when fed on sugar, produce honey? If so, in what proportion?

The Household.

Bad News for the Rats

RECENT experiments show that squills (*Scylla maritima*), the enormous bulbous root of which is much used in medicine, is not only a powerful poison for rodents, but also one they are very fond of. The way of preparing it for the desired purpose is as follows: One of the bulbs is cut into slices, hashed and bruised, then done in the can with fat, which is afterwards strained through a cloth and poured into broken plates and saucers, to be placed in the cellars and other places infested with rats, mice, &c. To prevent dogs and poultry from eating of this poisonous compound in stables, pigeon-houses, or farmyards, it may be put into a wooden box, about a foot and a half long, and having a hole at each end. The rat gets in at one end and goes out at the other, after partaking of the noxious food, which soon kills it. Squills may also be reduced to powder for the same purpose, by bruising them in a mortar to a pulp, which is afterwards incorporated with as much flour as it will hold. This paste is then rolled out, as they do for a pudding, then cut into shreds, which are left to dry on hurdles or on sheets of pasteboard, and are afterwards pounded in a mortar. The powder thus obtained will keep for years, and may be put into boxes or barrels. If manufactured on a large scale, it may become a profitable article of exportation. In Algeria squills cost nothing, the country being absolutely overrun with them.—*English Paper*.

How to Keep Silk.

SILK articles should not be folded in white paper as the chloride of lime used in bleaching the paper will probably impair the color of the silk. Brown or blue paper is better; the yellowish, smooth, India paper is the best of all. Silk intended for dress should not be kept long in the house before it is made up, as lying in the folds will have a tendency to impair its durability by causing it to cut or split, particularly if the silk has been thickened by gum. Thread lace veils are very easily cut. But dresses of velvet should not be laid by with any weight above them; if the nap of a thin velvet is laid down, it is not possible to raise it up again. Hard silk should never be wrinkled, because the thread is easily broken in the crease, and it can never be rectified. The way to take wrinkles out of silk scarfs and handkerchiefs is to moisten the surface evenly with a sponge and some weak glue, and then pin the silk with some toilet pins on a mattress or feather bed, taking pains to draw out the silk as tight as possible. When dry, the wrinkles will have disappeared. The reason of this is obvious to every person. Some silk articles should be moistened with weak glue or gum water, and the wrinkles ironed out by a hot flat-iron on the wrong side.—*Leisure Hour*.

HERBS.—Every housekeeper, where there is a garden attached to the premises, should have her bed of herbs of all the different varieties used in a family. They are very hardy, and once cultivated they will not soon be given up

“Cheaper than dirt” is the pertinent inscription on a case of soap in an apothecary's window.

WHEN the Hindoo priest is about to baptise an infant, he utters the following beautiful sentiments: “Little baby, thou enterest the world weeping, while all around thee smile. Continue so to live that you may depart in smiles, while all around you weep.”

TEST YOUR KEROSENE.—In view of the many lamp explosions resulting almost invariably from the use of bad kerosene, we urge upon the heads of families the importance of testing their oil before use in the lamp. This may be readily done by any man, woman or child, by means of a thermometer, a little warm water, and a tablespoonful of oil. Fill the cup with warm water, the temperature of which is to be brought to 110 deg. Fah. Pour the oil on the water; apply flame to the floating oil by match or otherwise. If the oil is unsafe it will take fire, and its use in the lamp is dangerous, for it is liable to explode. But if the oil is safe and good it will not take fire. All persons who sell Kerosene that will not stand the fire test at 110 degrees, are liable to prosecution.—*Ex*.

AN IMPERFECT ANGEL.—One of the younger members of the French Legation at Washington is noted for his gallant and exquisite compliments. One evening, at a “german” at Governor Morgan's, he was introduced to a witty New York lady who had an ugly flat nose. The polite Frenchman discreetly complimented her on her dancing, to which she archly replied, “Ah! I have heard you are flatterer, but you cannot find it in your heart to compliment me on my personal beauty, so you praise my dancing.” “Madam,” was the reply, with a Parisian bow, “you are an angel from heaven, but you fell on your nose.”—*Exchange*.

Miscellaneous.

The Trial of the Crows.

At a recent meeting of the “East Lothian Agricultural Club,” Mr. Durie, Barney mains, in speaking to a motion, of which he had given notice at last meeting, as to the desirableness of diminishing the number of crows (rooks), said that he was certain that crows did an immense amount of damage to every farmer in the county. Mr. Scott Skirving, and other friends of the crows, said that they killed vermin. No doubt they did; but if they could put the amount of damage against the amount of good they did, the balance would be found to be on the wrong side for the farmer. He did not want their entire extirpation, but simply that they should be kept down, say to about half the number there were at present. He moved a resolution to the effect that the club was of opinion that the number of crows should be diminished, and that the proprietors should be communicated with, in the hope of their taking means to destroy them in their districts.

The CHAIRMAN stated that many years ago an application was made to the Earl of Wemyss to allow persons to kill crows in Amisfield Park. His Lordship gave orders that every one should be killed, and 30,000 were supposed to have been destroyed in two days. From that day to this, not a crow had been allowed to build in the Park. He did not think the crows were so plentiful in the county as they once were, but they were still too numerous.

Mr. MILL, Lugate, said he really thought that to a large extent the crows were the farmer's friends. They preserved the crops from grubs, and he thought it would be for their advantage if magpies and hawks were allowed to live, as they were many years ago, for the purpose of keeping down the small birds.

Mr. ELDER, Bearford, thought crows kept in a limited number would do good, but not in their present number. He knew that crows were fond of worms and grubs, but he also knew that they liked wheat, especially when coming through the ground. They might sow to the extent of a bushel of wheat less per acre but for the crows. If those who spoke in favour of the crows had visits from as many of them as he had, they would have a different opinion.

Mr. ELLIOTT, Abbey Mains, seconded Mr. Durie's motion.

Mr. JENKINSON, Kidlaw, said that the crows “harried” a great number of the partridges' nests—otherwise, he had never seen them do any harm.

Mr. SMITH, Whittingham, said his opinion was not confined to this district—that the crows were very destructive. They took up, for instance, seed potatoes when they were planted. He had known them carry off these potatoes in their bills, and drop them when pursued. Whatever might be the natural

too l of the rooks, he thought that it was evident that they had a "crap for all corn." Whatever magpies did, it was well known that rooks destroyed eggs to a large extent, so that he did not think it would require much persuasion to get gamekeepers to promote their views.

Mr. MILL said he never in his life saw crows attacking ripe grain; he had seen it many a time, however, destroyed by wood-pigeons. He never in his life saw crows on a stook.

Mr. BELFRAGE corroborated Mr. Smith's opinion as to the damage inflicted by crows in the potato fields.

The CHAIRMAN said a celebrated naturalist had stated that he would be obliged to any gentleman who could tell him that he ever shot a crow and found a grub in it, averring that they did not like the grubs.

Mr. PATON, Standingstone, said that he would much rather have partridges and small birds increased than the continuance of the present number of crows.

Mr. WYLLIE, Bolton, stated that the crows in seeking the grubs pulled out the plants. He thought that instead of looking to crows for the destruction of vermin, they should apply the manures which would accomplish that object. He had seen thousands of crows sitting on stooks, and found many of them, which could not be taken in for some days on account of the wet, reduced to mere chaff.

Mr. DURIE's resolution was then unanimously agreed to.—Mark Lane Express.

Cemetery Advertising

It is well known that at the Pere-la-Chaise Cemetery, Paris, there stands in a conspicuous position a splendid monument to Pierre Cabochard, grocer, with a pathetic inscription, which closes thus:—"His inconsolable widow dedicates this monument to his memory, and continues the same business at the old stand, 167, Rue Mouttetard." Now, a Parisian paper relates that a short time ago a gentleman, who had noticed the above inscription, was led by curiosity to call at the address indicated. Having expressed his desire to see the Widow Cabochard, he was immediately ushered into the presence of a fashionably dressed and full-bearded man, who asked him what was the object of his visit. "I came to see the Widow Cabochard, sir." "Well, sir, here she is." "I beg pardon, but I wish to see the lady in person." "Sir, I am the Widow Cabochard." "I don't exactly understand you. I allude to the relict of the late Pierre Cabochard, whose monument I saw yesterday at the Pere-la-Chaise." "I see, I see," was the smiling rejoinder. "Allow me to inform you that Pierre Cabochard is a myth, and therefore never had a wife. The tomb you admired cost me a good deal of money, and, although no one was buried there, it proves a first-rate advertisement, and I have had no cause to regret the expense. Now, sir, what can I sell you in the way of groceries?"—The Grocer

AN OPENING FOR EMIGRANTS.—Any stout, healthy young fellow, who has no desire to amass money—who has no objection to continual watchfulness and occasional hard work—who does not fear exposure to all sorts of weather—who can be content with mutton and hard biscuits every day all the year round; and lastly, who has no particular love for the society of either man or woman, might be very happy as a shepherd in Buenos Ayres, and will have no difficulty in finding employment.—Random Sketches of Buenos Ayres.

ARGUMENTUM AD HOMINEM.—A sceptical young collegian confronted an old Quaker with the statement that he did not believe in the Bible. Said the Quaker:

"Does thee believe in France?"
"Yes, for, though I have not seen it, I have seen others that have: besides, there is plenty of corroborative proof that such a country does exist."
"Then thee will not believe anything thee or others has not seen?"
"No, to be sure I won't."
"Did thee ever see thy own brains?"
"No."
"Ever see anybody that did?"
"No."
"Does thee believe thee has any?"

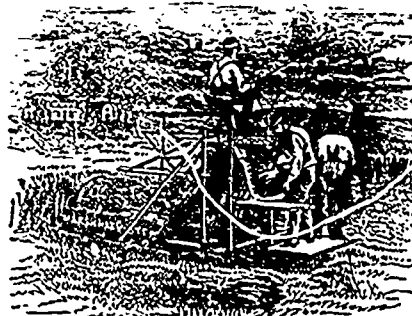
QUIT.—A leading farmer of the parish having refused to pay, the churchwardens resolved to make an example of him. A summons was therefore taken out against the farmer, and in due course a warrant of distress was lodged in the hands of the officers, from whom he was informed he might expect a visit in a day or two. Our farmer accordingly took the

precaution of removing from his yard all the stock which it would be inconvenient to have sold under such disadvantageous circumstances. A cow happening to wander into the premises, was, however, suffered to remain, and the bailiffs and police hauled it off in triumph. The animal was presently sold for about one-third of its value, and the churchwarden waited upon the farmer with the trifling surplus that remained after deducting the rate and the costs. "I told you," said he pompously to the delinquent, "I should be obliged to make an example of you; this is what comes of disobeying the law." "Ah," replied the farmer, "they've sold your old sow, so you'd better keep the balance."

THE COLONIES OF GREAT BRITAIN.—The colonies of the Empire were established as follows:—Newfoundland, in the year 1536; Malacca, 1579; Gambia and the African gold coast, 1618; Cape of Good Hope, 1620; Nova Scotia, 1621; Barbadoes, 1624; Nevis, 1628; Bahama Islands, 1630; Antigua, Montserrat and Anguilla, 1634; Bengal, 1634; St. Helena, 1639; Jamaica, 1655; Cape Coast Castle, 1661; Bombay, 1662; Tontola, 1666; Dominica, 1668; Belize, 1674; Gibraltar, 1701; New Brunswick, 1713; Prince Edward Island and Cape Breton, 1745; Lower Canada, 1759; Upper Canada, 1760; Grenada and St. Lucia, 1762; Tobago, St. Vincent and Ceylon, 1763; Falkland Islands, 1666; New South Wales, 1770; Sierra Leone, 1787; Vancouver's Island, 1792; Demarara, 1796; Trinidad, 1797; Goze, 1798; Malta, 1800; Port Philip, 1802; Van Dieman's Land, 1803; Heligoland, 1807; the Ionian Isles, 1809; Mauritius, 1810; New Zealand, 1814; Ascension Island, 1815; Natal, 1824; Fernando Po, 1827; Western Australia, 1829; British Guinea, 1831; South Australia, 1834; Victoria (Australia), 1837; Hong Kong, 1843; Labuan, 1848; Lagos, 1851; British Columbia, 1858; Queensland, 1859.

Advertisements.

Paxton, Tate & Co., Port Perry, Ont.



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AGRICULTURAL IMPLEMENTS

OF ALL KINDS,

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MILL CASTINGS, etc., etc.,
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Repairing of all kinds promptly attended to.

WARRANTY.

We warrant the Marsh Harvester to be well made, of good material, and when properly used, not liable to get out of repair; to be a good grain cutting machine upon which two experienced binders can bind in average grain, on suitable ground, from eight to twelve acres in twelve hours, and that it will work on as rough ground as any other Reaper

Port Perry, March 23, 1868. PAXTON, TATE & CO. v5-7-1f

DIEHL WHEAT.

THE Subscriber has for sale a quantity of DIEHL WHEAT at \$2 per Bushel.

LEWIS SPRINGER, Hamilton, Ont. v5-15-1f

Duncan's Improved Hay Elevator.

PATENTED April 15th, 1867.

THE cheapest and simplest constructed Fork in use in the Dominion of Canada. County or Township Rights for the manufacture of the above Fork may be obtained from the undersigned. JAMES W. MANN, Port Dorer, Ont. v4-20-1f

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FOR FALL OF 1868.

WE have the pleasure of announcing that we are prepared for the Fall Trade with an unusually large and well grown stock, embracing

Standard and Dwarf Fruit Trees.

Grape Vines, new and old sorts, strong open ground plants. Currants, Raspberries, Blackberries, and all the small fruits.

ORNAMENTAL TREES AND SHRUBS.

Roses and Flowering Plants of every description

Nurserymen, Dealers, and others, purchasing largely, will be dealt with liberally, and all orders, however small, will receive prompt and careful attention. Parties interested will do well to consult the following Catalogues, which are just issued, and will be sent pre-paid on the receipt of 10 cents, each, for Nos 1 and 2, and 5c for No. 3.

No. 1, Descriptive and Illustrated Catalogue of Fruits. No. 2, Descriptive and Illustrated Catalogue of Ornamental Trees, &c. No. 3, Descriptive of Green House Plants. No. 4, Wholesale Catalogue. 1868.

ELWANGER & BARRY.

15-17-41. Market House, N. Y.

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THE TRUST AND LOAN COMPANY, of Upper Canada, have funds for investment, at their usual rate of interest, on the security of improved real estate.

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THE "DEXTER CIRCULAR," after six months trial, is pronounced the most wonderfully quick method ever discovered to make any unbroken horse or colt trot fast without the use of a track. One boy made 2000 on two common colts, \$500 each. Price \$1. Address, GEO. A. BRADSHAW, Dry St., N. Y.

P. S.—We recommend every farmer's immediate attention to this circular. J. W. Forman, Troy Mills, I. W. O. J. Brazee, Egremont, Mass., Charles Palmer, Hulsdale, N. Y., John Gilder, Glove, Australia, N. Y., Russell Forman, Postmaster, Great River, N. Y., and a hundred others. v5-18-4f

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FOR AMATEUR CULTURE.—NAPOLEON III, of LARGE SIZE, BIGGEST FLAVOR, GREAT PRODUCTIVENESS, AND EXTREME VIGOR AND HARDINESS. We offer a splendid stock of young, thrifty plants of this valuable new French variety. Illustrated Descriptive Circular mailed to applicants.

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THE Subscriber will offer for sale at the approaching Provincial Exhibition, to be held in Montreal, A PURE BEEF AYRSHIRE BULL, 17 months old, from his imported cow "Ernie," by the County of Beauharnois Agricultural Society's imported Bull "Marquis."

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BEAUHARNOIS, P. Q.

15th August, 1868.

v5-17-2f.

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DESTROYS the TICKS, cleanses the skin, strengthens and promotes the growth of the wool, and improves the condition of the animal.

It is put up in boxes at 25c, 70c, and \$1, with full directions on each package. A 50c. box will clean twenty sheep.

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F. W. GLEN,
EXECUTOR, OSHAWA, ONT.

August 28, 1868.

(5 17-1f.)

IMPORTANT AUCTION SALE
OF PURE BRED
SHORT-HORNED CATTLE
AND
LEICESTER SHEEP.

THE Subscriber has received instructions from Mr. Wm. Douglas to offer for Sale by Auction, at his farm, **Lot No. 80, Township of Onondaga**, four miles West of the Caledonia Station of the R. & L. H. R., on **Thursday, the 15th Oct., 1868**, the following valuable stock:

Three Cows in Calf; two Heifers, two years old, do.; three Heifer Calves; five Bull Calves; one Grade Cow; one Grade Heifer, two years old; twelve pair Shearling Leicester Ewes; eight pair Ewe Lambs; six Rams, and eight Ram Lambs. Full Pedigrees of the Durhams will be furnished at sale.

TERMS OF SALE:—Twelve months credit will be given on furnishing approved endorsed notes.

Sale to commence at eleven, a. m.

HENRY PEATMAN,
Auctioneer.
v5-18-2t

Onondaga, Sept., 1868.

SHORT-HORNED CATTLE
AND
IMPROVED FARM STOCK.

MR. THORNTON, having lived ten years with Mr. Stafford, editor of "Coates' Herd Book," is prepared to buy and ship **SHORT-HORNS**, or any kind of pure bred farm stock, supply information regarding them, or execute commissions in the old country.

"The Circular," a record of Short-Horn transactions in England, and list of animals for private sale, published at intervals. Price \$6 annually. Post free.

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IMPORTED BERKSHIRE PIGS,
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STERLING ALGUIRE'S MILK AGITATOR,
PATENTED APRIL 15, 1868.

STERLING ALGUIRE PATENTEE,
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For particulars address

J. B. HARRIS, ASSIGNEE,
Belleville, Ont.

The attention of factory men is respectfully called to the following testimony from one of the best factories in Oxford County:

NORWICH, ONT., Aug. 26, 1868.

J. B. HARRIS,

DEAR SIR,—Your Agitator needs no recommendation, it will recommend itself, and every cheese manufacturer can become convinced by giving it a fair trial; for my part I would not have it taken out of my two vats for twice the price. No cream can possibly rise, and it cools the milk to the same temperature as the water with one quarter inch stream of water.

v5-17-1t

Respectfully yours

H. S. LOSEE.

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MCGILL UNIVERSITY,
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SEC. BD. OF AGRICULTURE
D. McEACHRAN, V.S.,
697 CRAIG ST., MONTREAL.

Or to
v5-18-4t.

Markets.

Toronto Markets.

CANADA "FARMER" Office, Sep. 11th, 1868.

THE Produce market since our last report has been quiet and dull. Barley has been offering, but the receipts have been light since the decline in prices. Only a very few loads of wheat have been offering on the street market.

FLOUR—The market is still dull. Holders have been asking \$6 for No. 1 super, and buyers have refused to buy at that price. Some lots were offered to day at \$6 85 and found buyers at that price; choice brands might bring 6c. more, or \$6 90. There are very few buyers, however, at these prices. Extra is selling in broken lots at \$7. Superior is nominal, offering at \$7 25 without buyers.

Oatmeal—Only a retail demand; selling at from \$6 50 to \$6 75.

Cornmeal—Selling at from \$4 to \$4 5c.

Wheat—There are only a few lots in the market. Spring wheat is in fair demand, but prices are weak. There are buyers at \$1 25 here. Fall wheat is nominal at \$1 30. There are no lots on the market, and it is impossible to give correct quotations. Midge-proof sells at about the same rate as spring. There is, as yet, very little coming in on the street market. Street prices are—Spring and Midge-proof \$1 27 @ \$1 28; Fall \$1 30 @ \$1 33, according to quality.

Oats—The market remains unchanged. Holders are asking 51c. for car lots. There are no buyers at over 48c. to 50c.—on the street market buyers were paying 51c.

Butter.—Coming in slowly; holders are firm, believing that buyers will have to come to their terms; we quote dairy from 20c. to 22c.; round lots 18c. to 20c.; those packed in small lots sell at 19c.; rolls on the market 25c. to 27c.

Eggs.—Selling on the market at from 11c. to 13c.; shippers are paying 11½c.

Cheese.—Only a retail trade doing; worth from 11c. to 12½c.

Pork.—In few hands; holders are asking \$24, with a few small lots selling at \$23 75.

Bacon.—Selling in small lots at 11c. to 12½c.; market is very bare.

HAY AND STRAW.

There is not much hay yet coming in. Prices continue to be well maintained. We quote hay at from \$11 to \$15. Straw is rather low; and ranges from \$6 to \$8.

Barley.—The recent decline in the United States markets has lowered prices here. The receipts from farmers' teams have in

consequence fallen off very materially. On no day this week has there been over 5,000 bushels received on the street market, and the receipts by car have also been greatly diminished; not amounting by half to those of the previous week. The decline has depressed the market; few large lots have been offering, and there has not been much desire to buy. To-day there were buyers of cargo lots at 95c. On the street market prices have ruled steady during the week from 95c. to 97c. There seems to be no likelihood of an immediate advance from these prices, as the tendency of the U. S. market is downward.

Peas.—There has been nothing doing in car lots—prices are nominal at 95c.; on the street market from 95c. to 96c. was paid.

Montreal Markets.—Sept. 11.—Flour.—Superior Extra, \$7 25 to \$7 50; Extra, \$6 80 to \$7 00; Fancy, \$6 25 to \$6 50; Welland Canal, Superfine, \$5 90 to \$5 95; Superfine No. 1 Canada wheat, \$5 90 to \$6 30; No. 1 Western wheat, \$5 90; No. 2 do. \$5 60; Fino, \$5 20; Middlings, \$4 50 to \$4 75; Pollards, \$3 to \$3 50; Bag Flour, \$3 to \$3 10.

Wheat—Canada Fall, \$1 30; Canada Spring \$1 30; Western \$1 30. Oats—Per 32lbs. 45c. to 50c. Barley—Per 43lbs. 90c. Butter—Dairy 20c. to 21c; store packed 19c. to 21c. Cheese—Factory, 10c. to 10½c. per lb.; Dairy 9c. to 10c. Eggs—14c. Ashes—Pots, \$5 75; Pearls, \$5 30c. Pork—Mess, \$24; thin Mess, \$24 50c; Prime Mess, \$16 75c.; Prime, \$16 5c. Lard—16c. to 16½c. Peas—\$1 10c. to \$1 12½c. Eye Flour—\$4 50c. Oatmeal—\$6 50. Cornmeal—\$4 to \$4 10.

Milwaukee Markets.—Sept. 11, noon.—Wm. Young & Co.'s report.—Wheat—Receipts, 91,000 bushels; shipments, 70,000; No. 1 wheat dull at \$1 67½ to \$1 68; No. 2 do. at \$1 53½ to \$1 54. Flour nominal. Pork firm at \$29. Freights unchanged.

Chicago Markets, Sept. 11, noon.—William Young & Co.'s report.—Wheat—Receipts, 80,000 bushels; shipments, not reported. No. 2 wheat quiet at \$1 56½. Corn dull at 97½c.; receipts 77,000 bush.; shipments, 118,000 bush. Pork unchanged.

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GEORGE BROWN,
Managing Director.