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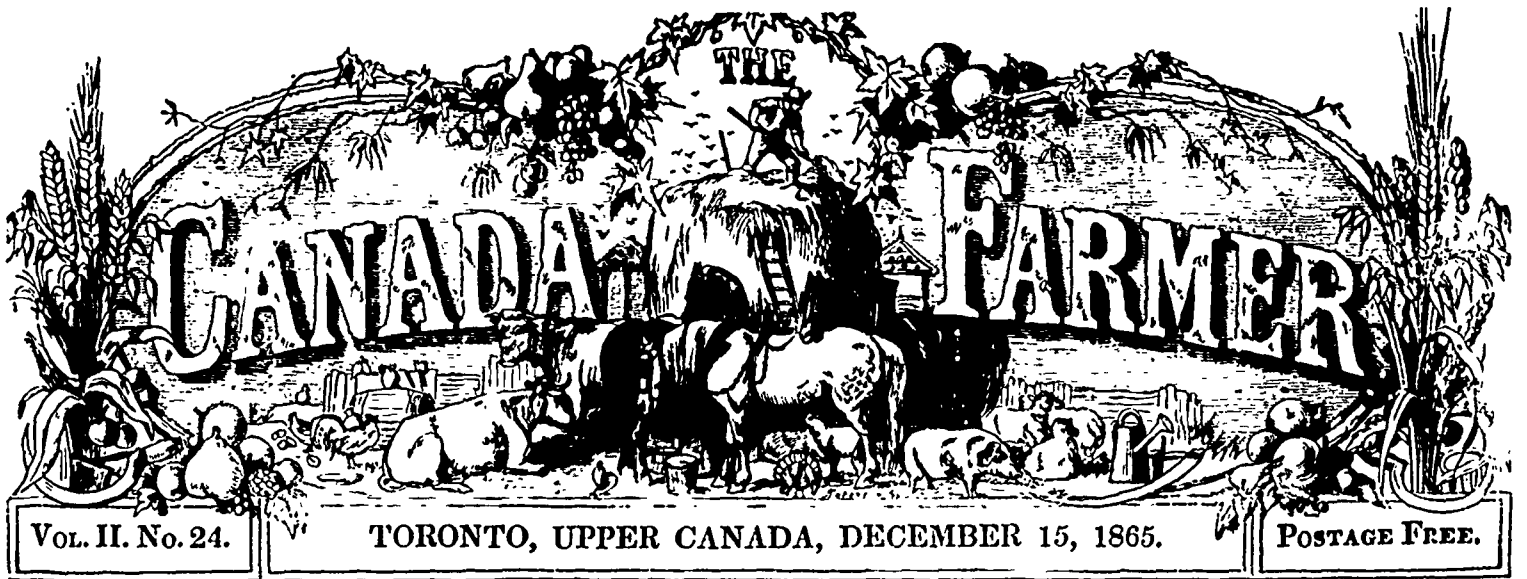
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The Field.

Steam Cultivation.

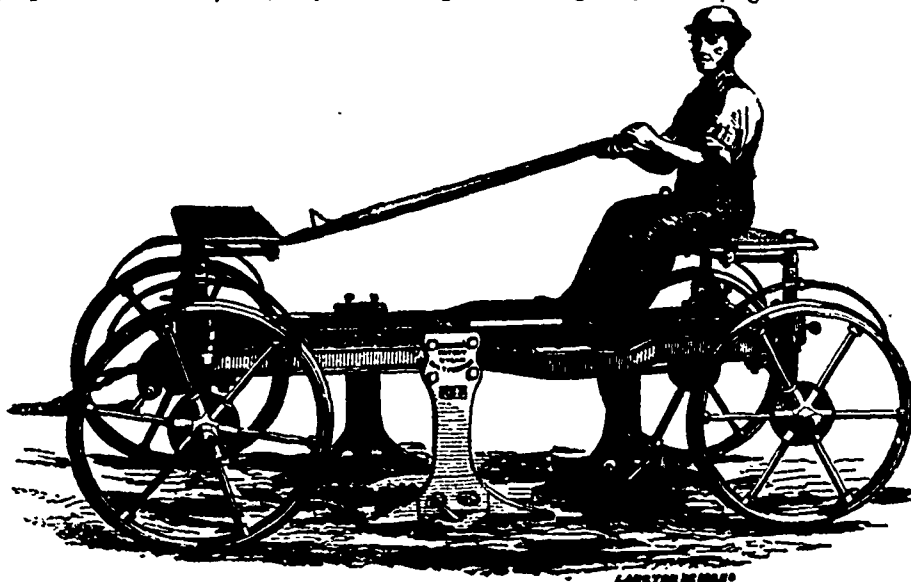
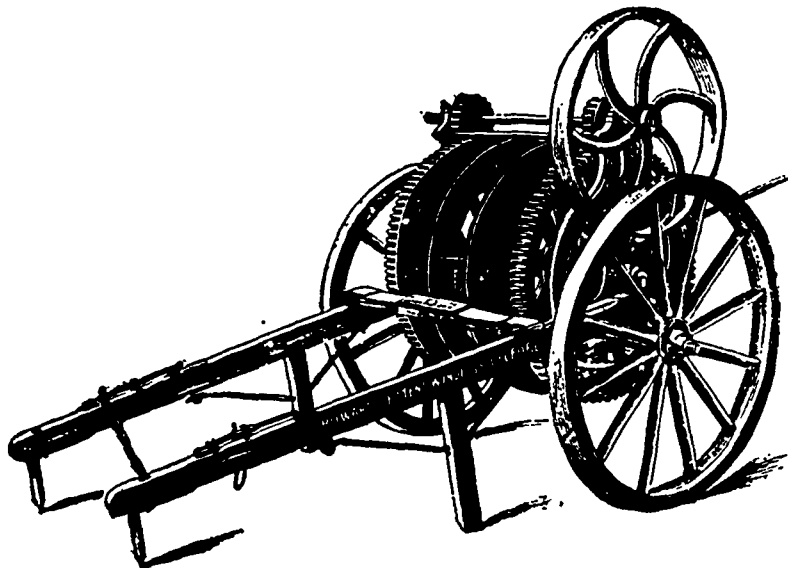
WINDLASS, CULTIVATOR, &c.

The windlass of Messrs. Howard, as shown in our first cut, consist of two drums which revolve round the wrought iron axle-tree of a pair of high travelling wheels, and on which the ropes are alternately coiled and uncoiled. Iron brackets, at each end of this axle, support the pinion shafts immediately over the drums, and receive the pair of wooden shafts by which the windlass is moved from place to place. "Anchor flukes" are attached to the extremities of these shafts, for the purpose of firmly securing the machine against the pull of the rope. When the steam plough is in operation, it will be seen by referring to the large illustration at page 305, that the windlass is placed in close contiguity to the engine. A crank, with a "flexible universal joint," connects them. The necessity for "clutches" and sliding pinions is obviated by this arrangement. The pinions are keyed fast upon their shaft, and the alternate gearing and releasing of the drums are accomplished by raising or lowering each drum in turn. The mode in which this is effected is at once novel and simple. The drums revolve round the axle-tree upon eccentric bushes, and, consequently, at each semi-revolution the drum is either slightly raised or slightly depressed. The drums are thrown in and out of gear by means of a spring; while a brake prevents the rope running off too rapidly. By this contrivance, the plough or cultivator may be stopped in an instant, even while the engine is running. The rope is coiled on the drums with as much niceness and regularity as cotton thread is wound on a reel. This is an advantage of some consequence. Irregularity of coiling, it is obvious, greatly increases the wear and tear of the rope, and impairs its strength and durability. Howard's New Patent Cultivator, is shown in our next illustration. This is a thoroughly effective im-

plement, combining great strength with little weight. By means of double tines, it works backwards and forwards, without being turned round at each end of the field. The workman steers the implement by means of a short removeable lever. On arriving at the end, he takes the other seat, fixes the lever before him, and in less time than it has taken to describe the process, proceeds on his way to the other end of the field. The tine of the cultivator somewhat resembles the letter Y turned wrong side upwards, and in order

most effective contrivance for breaking up strong tenacious soils. Dragged by its resistless iron horse, it will rip up the heaviest land to the depth of twelve or fourteen inches, and will bring to the surface soil to which no ordinary plough could penetrate. We reserve, till our next issue, further description of steam cultivating apparatus. In the meantime, we may briefly glance at some aspects of the relative advantages of steam and horse culture, which are now being discussed in the British agricultural press.

It is to be regretted, in spite of the impetus which eminent British agriculturists have given to farming as a science, during late years, that the premises for arriving at a definite conclusion, on this important point, are extremely vague and unsatisfactory. An accurate comparison between the old system and the new can only be based upon a full and correct method of farm book-keeping. The regular and conscientious discharge of this duty,—for it is a duty,—is apparently confined to a very limited section of the farming community in Britain, as well as in Canada. Like many other excellent customs, it is, unfortunately, "more honoured in the breach than in the observance." It is somewhat rare, either in the "old country" or in this province, to meet with a farmer who, by reference to any fugitive account, can give the history of one his fields for three years back. He may, possibly, have some approximate idea of the amount actually pocketed by marketing the crop; but, as regards the cost of cultivation, the expense of manuring, and the amount expended in harvesting operations, he either replies with the most reckless uncertainty, or declines, with some alarm, to attempt so abstruse a calculation. The cost of horse keep, again, is one of the standing problems of the farmer, and perfectly indeterminate in its character. It is only necessary to question any number of farmers as to this expenditure, to be convinced that the most amusingly conflicting opinions exist on the subject. The same vagueness and inaccuracy extends, in a greater or lesser degree, to almost every item of farm disbursements, which, had



they been rightly regarded within the province of manufacturing proper, would have been accurately measured and tabulated. Had the results of steam culture been carefully balanced with those of horse culture, we should not now be compelled to grope in the dark for statistics, while in all probability steam would have been far more generally used in farm tillage. "At the present time," as has been shrewdly remarked, "the sanguine, who rarely wait for results, and the far-seeing, who arrive at their judgments by a species of intuition, are mainly those who have had courage enough to become steam plough men." Their more cautious brethren are yet curiously prying through the hedge, uncertain whether to praise or to condemn. Here, they are warmed up with a highly coloured picture of profit. There, they are cooled down by exaggerated statements of loss. So they oscillate between two opinions, and half dissatisfied, drive on their teams till light from one quarter or another becomes clearer.

At the same time, the lessons taught by the deep tillage of the steam plough have not been lost. Deep fall ploughing is now one of the established features of British agriculture. By means of four, and even six horses attached to a single plough, land in many counties is cultivated to a depth of twelve or fourteen inches. When, however, it is remembered that in ploughing an acre of land with four horses, about three hundred thousand footprints are made, it will be manifest that this enormous amount of treading is just so much taken from the useful effect of the ploughing. In heavy wet land every horse's foot renders the soil covered at each step, impervious to air and moisture. With the steam plough this evil is entirely avoided, while the land is broken up into larger pieces, thus permitting the atmosphere to act on the newly exposed surface, and to render it easily reducible to a fine tilth in the spring. A general opinion seems to exist among the British agricultural community, that steam cultivation is best adapted to heavy land, and that it will be exclusively confined to it. Although it is almost self-evident that the steam-horse is a most valuable acquisition to the occupier of strong clay land, it by no means follows that steam cannot be economically applied to lighter soils. The apparatus that is constructed especially for strong land may not be adapted to free soils, but with a special adaptation to varied circumstances, the power which is so invaluable in the one case, is quite as invaluable in the other.

The advantages of steam culture, as established by the experience of British farmers who have fairly tried it, may be summarized as follows: Steam is cheaper than horse-power for doing the hard work of a farm. Deeper and more efficient cultivation is obtained. The farmer is enabled to perform his tillage operations in less time, and at the most favourable season of the year. On clay and loam soils, especially, better crops with less manure can be obtained. The land is speedily and effectually freed from thistles and other troublesome weeds. Tenacious soils are made more friable and porous. Drainage is promoted by stirring the subsoil and breaking the "pan." Open furrows are unnecessary. Steam implements,—when the motive power is supplied by a stationary engine like Howard's or Smith's,—may frequently be worked to advantage in an unfavourable season, when it would be impracticable to work with horses. And finally, a much less number of horses is necessary on a farm, while these that are still requisite can be maintained at less expense.

GREAT YIELDS.—Eb. Phillips raised the present season in Sandgate, Vt., a fine field of buckwheat, and he counted the product of one kernel and found the yield to be 3270 seeds. Jacob Stanton, of North Danville, selected from his oat field one sprout, seven straws, from each were gathered 200 oats, making a yield of 1400 from one. D. H. Wilson, of Berlin, raised three bushels of large onions on less than 10 feet square of land. Lewis White, of Waterbury, Vt., grew a potato which weighed 2½ lbs.—*Boston Cultivator.*

Green Crops.

To the Editor of THE CANADA FARMER:

Sir,—In Great Britain, the system of feeding green crops on the soil is well understood and thoroughly acted upon. The practice is, on all hands, agreed to be very beneficial to the soil, and at the same time, one of the best methods of feeding stock: but in Canada this principle in farming is almost entirely overlooked. I can see no good reason why this should be so. We have an excellent soil, and a climate well suited to the growth of the plants required. The system is one that, on fair trial, must commend itself to the farmer. By it we save the labour of cutting and carrying the crop, and, at the same time, manure the soil—thus saving the cartage of manure. By sowing rye, in the fall, on the land we intend to follow the ensuing season, we have in spring a breadth of fine succulent herbage, coming on at a time when our stock cease to eat the winter's food with relish, and when it would be the worst policy to turn a single hoof on meadow or pasture land. The rye should be sown thickly, and allowed to grow about a foot high before being fed. It is best fed in small plots, which may be done with a sheep net, or temporary fence. It should not be eaten too close in order that it may spring for another cropping. This crop is specially valuable for breeding ewes and milch cows, and is also very useful as a green food for horses. The only expense connected with the crop is that of seed and harrowing, as it is customary, and wisely so, to plough summer fallow the previous autumn.

Another plant I would commend as a green crop, is *rape* or *colzaed*, now one of the established green crops of Britain. There, it is sown at the end of June, (or in July after flax) at the rate of two quarts per acre on the flat, in rows thirteen or fourteen inches apart, and often with the turnips that are to be first fed off by the sheep. In July, that sown in June is hoed and thinned out as you would turnips, double plants may be left in a place. The crop is ready for stock in October, and is in season till all is eaten. With us it may be sown thus, or broadcast, early in spring and at intervals, being proof against the fly. It matures in about four months, and will thus be available (according to time of sowing) from August to winter. This crop is fed the same as the rye, and is very valuable as supplying a want in pasture during the months in which it is in season. Those acquainted with the plant say that it is one of the best fat producers. Vetches, tares, millet and Hungarian grass may be fed with advantage as green crops, but should be cut and carried. Were we to sow our late turnips a month or so sooner than customary, we could feed them off in September as we do rape.

On the farm of Messrs. Gooderham & Worts, of this place, most of the above crops have been grown, and so well pleased are these gentlemen with the results, that they purpose having about fifty acres of green crop the ensuing summer, 25 of which are already sown in rye. The present year they have grown about four acres of rye, and about the same of rape. The former was twice fed over by the lambing ewes, furnishing a large amount of excellent food; and the rape sown in June has been fed off the past month. It was sown on a hill side, and was as good a crop as could be expected on the soil.

WILLIAM LESLIE.

Meadowvale, Dec. 6th, 1865.

A FRENCH MANURE MANUFACTORY.—The *Chemical News* says:—"In the *Journal d'Agriculture Pratique*, M. Barra gives some interesting details on the subject of the manufacture of animal manure at Aubervilliers. The manufactory consumes every year 8000 horses, 200 donkeys, 300 cows, 300 pigs, 9000 cats and dogs, 600 kilograms of meat unfit for food, 500,000 kilograms of offal from the Parisian abattoirs, and 600,000 kilograms of other refuse animal matters, such as skins, horns, &c. The raw material is first cut up and boiled, to extract the grease. The flesh is then separated from the bones, pressed, and dried. It is afterwards ground and sifted, and the dried bones, which are also submitted to the same process, mixed with it, forming a manure containing 35 per cent. of nitrogen and 55 per cent. of phosphate of lime. The blood is collected separately, and also made into manure. The soup obtained in the boiling is strained, and the solid matter thus collected is added to the rest. The offal is piled in alternate layers with other organic matter, such as wool and parings of horn and hoofs, with which is mixed a certain amount of mineral phosphates. The heap is well moistened with the strained soup, fermentation is set up, and the whole is gradually transformed into excellent manure. During this process the phosphate of lime breaks up into phosphoric compounds, more or less soluble, and various salts of ammonia are formed."

The Dairy.

MAKING DOUBLE GLOUCESTER AND STILTON CHEESE.—In answer to a correspondent, the *Irish Farmers' Gazette* describes the process of making these popular varieties of cheese as follows:

"Double Gloucester cheese is made from whole milk, and heated to about 104 degrees, and let to cool down to 98 degrees, when the rennet is added, and gently mixed up and let stand from three-quarters to an hour. When sufficiently heated, the curd is gently broken up with a scoop, and let stand for a few minutes to subside, when the whey is drawn off, and the curd cut in every direction with a knife; it is then put into a drainer, with a cover to fit inside, and a weight put on it, to press down the curd; every half hour the curd is cut smaller and smaller, and additional weight put on it; in about three hours it is put into a tub, cut very small, and salted to taste; the curd is then put into the mould, weighed, and put near the fire, and shortly after put in a cheese screw press and turned frequently, rubbing it each time with a little fine salt for ten days; it is then rubbed with a little butter, placed in the cheese store-room, turned three times a week, and rubbed with a coarse towel. Care must be taken not to expose the cheese to too much drought in all its stages, which would cause it to crack; or to damp, which would cause it to swell. Stilton cheese is made by using the cream of two milkings and the milk of one mixed together. The process of making is the same as any other cheese, but the curd is not so finely broken, and to be of the best quality, should be kept two years."

WATER A DIRECT AGENT IN THE PRODUCTION OF MILK.—Experiments made on this subject have been recently brought before the Academy of Sciences by M. Dancel. The conclusion to be deduced from these, and from the observations made by various persons, is, that the amount of solid food consumed is little or not at all affected by the fact that the animal is giving milk, but that the quantity of milk produced is in exact proportion to the quantity of water drunk—both circumstances being true also of human beings. A heifer which, before calving, will be satisfied with from two and a half to four gallons of water, when suckling, will require from six and a half to ten. A change from succulent herbage to dry forage will immediately reduce the quantity of milk to three-fourths or even two-thirds. The necessity for a supply of water is different in different circumstances.—A lean person, as soon as she begins to nurse, will have a violent desire to drink; not so one that is fat, a supply of water being already stored up in her organism for the supply of extra demands. Hence the milk producing power of any substance depends, as might be expected, on the quantity of water it includes. Oil-cakes are found to be bad milk-producers unless mixed with water. We must observe, however, that absolute quantity of milk is one thing, and nutritive value is another. One animal may produce a large quantity of poor milk; another a small quantity of rich; and the latter may afford the more valuable product. M. Dancel does not enter into this, which is the most important part of the subject. If mere quantity depends on the water drunk by the animal, the amount of solid matter contained in the milk—that is, its real value—must necessarily depend on the quantity and quality of the solid matter consumed by the animal. Dairykeepers know but too well how to increase the quantity of their milk; and to us it seems to make but little difference whether the excess of water is due to direct adulteration, or unsuitable but to economic feeding. When we purchase milk we intend to pay, not for water, but for the solid matter it contains.—*Scientific Review.*

Sheep Husbandry.

SALE OF A VALUABLE RAM.—The *Rural New Yorker* says: "We understand that Mr. A. J. Jones of West Cornwall, Vt., has made sale of his ram 'Young Comet,' that was awarded the first premium at the late State Fair at Utica, to Messrs. Eli and John Taylor of Elba, Genesee Co., N.Y. for \$2000. We learn that the same gentleman some years ago, bought one hundred of Mr. J.'s Vermont ewes. The celebrated 'Young Comet' can be seen by those wishing to avail themselves of the opportunity by calling on Mr. Taylor at his place."

STRENGTH OF DIFFERENT KINDS OF WOOL.—A. F. Moon, Paw Paw, Mich., asks us which is strongest, and will make the strongest cloth, coarse or fine wool. Fine wool is decidedly stronger in proportion to diameter than coarse wool; and fine wool, if spun into as large threads as those of coarse wool, which are employed in heavy common cloths, would make a fabric more than three times as durable as the latter.—*Randall, in R. N. Yorker.*

Entomology.

The Joint Worm.

In the last number of the "Practical Entomologist" (published by the Entomological Society of Philadelphia), there is a long article—much too long for insertion in its entirety in our columns—commenting on our observations respecting the Joint-Worm, (*vide* CANADA FARMER, Vol. II, No. 19, p. 297.) The following extracts will enable our readers to judge of the importance which is attached by Entomologists to the smallest particulars respecting our insect enemies; and to perceive how much valuable assistance they can render us and the community at large, by carefully watching the depredations of such insects as come in their way, and sending us the results of their observations.

"The above paragraph from THE CANADA FARMER, throws some considerable light upon a subject of great practical importance to the Agriculturist, which has never yet been fully elucidated. For many years back it has been known that whole fields of wheat, rye, and barley have been destroyed in the States bordering on the Atlantic, by a minute insect popularly called the "Joint Worm." All accounts agree in stating that this so-called "worm" is found in considerable numbers, imbedded in a small, gall-like swelling in or immediately above the second joint of the straw, or at all events some joint not far from the ground; and that, in consequence of its operations, the portion of straw above the gall-like swelling withers and comes to nothing. This "worm" of course must, in all probability, be the larva of some insect; but to what Species, to what Genus, and even to what Family and Order it belongs, is at present wrapt in obscurity.

Both Dr. Fitch and Dr. Harris were originally of opinion that the Joint-Worm was the larva of a *Cecidomyia* or Gall-gnat, the same genus of insects to which appertain the common Hessian Fly and the Wheat-midge. Subsequently, however, because from a large quantity of the diseased straw they never bred anything but *Chalcis* flies, they both of them came to the conclusion that it must be the *Chalcis* flies that were the cause of the disease. And yet it is notorious that the *Chalcis* family—to which appertain the genus *Eurytoma* mentioned in the extract from THE CANADA FARMER—are generally parasitic upon other insects; and that, although hundreds of species of them are known to entomologists, in no one instance has it yet been satisfactorily proved, that any one of them is other than parasitic in its habits.

We have referred this subject to Mr. Benj. D. Walsh, of Rock Island, Illinois, who has paid special attention to the Natural History of Galls,* and has published Papers in our Proceedings, on the Galls of the Willow and Oak."

The article then gives Mr. Walsh's opinion on the subject. He first states his reasons for believing that the "Joint-worm" is the larva of some Gall-gnat, and not of a *Chalcis* fly, and then proceeds as follows:—

"Let us recur now to the extract from THE CANADA FARMER, in the light of the above suggestions, which I offer, not by any means as a complete solution of the question, but as mere opinions formed from the very incomplete evidence which has as yet been published. Three things are tolerably plain from this extract—1. That the 'two small sections of wheat-straw, in which are imbedded pupæ' and which are located generally 'on the second joint of the straw,' are true Joint-worm galls. For if the pupæ had been those of the Hessian fly, it would not have been necessary to make a 'section' of the straw in order to exhibit them, as the pupæ of the Hessian fly always lies, not *inside* the straw, but between the straw and the shank of the leaf that envelops the straw above every joint. 2. That the 'tiny little flies' bred from the pupæ found in the wheat-straw from Canada are *Chalcis* flies, probably belonging, not to the *Eurytoma* group, but to the *Pteromalus* group. 3. That they 'ate their way out of the sides of a certain pupa' found in these 'Joint-worm' straws, and consequently that they must be, not gall-makers, but parasites like all other *Chalcis* flies whose natural history is accurately known. Whether that pupa is the pupa of a Gall-gnat, or of a Gall-moth, or of a Saw-fly, or of a Gall-fly, can be readily and certainly determined from the simple inspection of a

single good specimen either dead or alive. But the particular genus and species to which the insect belongs, can only be found out by actually breeding the living pupa to the perfect state. For these two purposes I most earnestly solicit the gentleman in Cobourg, or the Editor of THE CANADA FARMER, to mail me immediately a few specimens of the pupæ spoken of in the above extract and the flies bred from them, packed in any small, stout, paste-board box in cotton wool, so that they may not rattle about and get broken on the road; and so soon as Spring opens and the supposed Joint-worm galls have nearly got their growth, to mail me every three or four weeks, enclosed in oiled silk to prevent their drying up, a fresh supply of them, roots and all if practicable—say a good large handful at a time—until I notify him to stop, which I engage to do as soon as ever I have attained my object. This may seem unnecessary trouble and expense; but it is absolutely necessary for the end which we all of us have in view. In order to breed Gall-gnats with success, it is essential to have fresh galls from time to time; for by no method known to me—and I have tried dozens of different methods—can these delicate insects be kept alive any length of time in the Breeding-vase."

Should our Cobourg correspondent be willing to accede to Mr. Walsh's request—as we trust he will—he can send specimens of the diseased wheat by mail at a very trifling expense. The following is the Post Office regulation for such matter:—"Packages of seeds, cuttings, &c., may be posted in Canada for delivery within the Province, or to an address within the United States on prepayment by postage stamp of a rate of one cent per ounce." No communication, whether written or printed, must be enclosed in them; but the nature of the contents must be marked on the outside, in order that the package may go at the reduced rate.

—In a matter of such importance, affecting such vast interests both in this country and in the United States, it is surely the duty of every one who has the opportunity, to do all in his power to increase our knowledge respecting these tiny foes, and thus render assistance towards the discovery of efficacious remedies. We know of no one better qualified than Mr. Walsh to make use of information contributed from various quarters, and to deduce from it results of practical value. We trust that any of our readers, who have observed their wheat attacked in a similar manner to that described by our Cobourg Correspondent, will also favour Mr. Walsh with specimens of it.

ERRATA.—No. 19, page 279—article, "Walking-stick Insect," for "*Bacumentus*" read "*Bacunculus*." *Ibid.*—Article, "Wheat-Joint Fly," for "*Eureptoma*" read "*Eurytoma*."

No. 20, page 311—article, "The Turnip Caterpillar," for "specimens of an (*Ophion*, etc.)," read "specimens of an *Ichneumon* (*Ophion*, etc.)"

Poultry Yard.

Fattening Table Fowl.

At the approach of Christmas we usually receive many queries respecting the best method of fattening fowls for the table. In reply, we cannot do better than quote the following very practical directions from Mr. W. B. Tegetmeier:

The place in which poultry are fattened should not be close, but should be free from drafts of cold air, and kept at a moderately warm and uniform temperature; the roof, therefore, if of tiles, should be thickly lined with straw. Quietness being so especially desirable, it should be so situated as not to be accessible to those fowls at liberty; and should be partially darkened, if possible. It is also important in the highest degree that it should be perfectly dry, as it is scarcely necessary to add that a fowl suffering from cold and inflammation is not likely to fatten, and it must be kept scrupulously clean. The fattening coops should be two feet six or eight inches high in front, and about two feet deep, with a boarded roof sloping backwards, the back and ends should be closed, and the bottom made of flat bars with rounded edges, two inches wide at the top and narrower beneath, so as to prevent the dung sticking to the sides. It is very important that the bars should run from end to end of the coop (not from back to front), as the fowls cannot stand towards the front when they are in the

latter position, and they should be two inches apart on the upper sides. The front of the coop should consist of rounded bars, three inches apart; two rods connected together by a loose cross-piece below, and sliding through holds made in the roof, will be found more secure than a door, as it cannot be left open by a careless feeder. Before the front should run a ledge to support the feeding-troughs, which are best made by joining two pieces of wood at a right angle, and securing the ends by letting them into grooves in stout end pieces.

The coops should be raised on legs so far from the ground that the droppings underneath can be scraped up every day; the most scrupulous cleanliness must be observed, otherwise disease will be produced. The coops, therefore, should be frequently lime-washed with freshly slaked lime and water, and then thoroughly dried, before a fresh batch of fowls are introduced. In cold weather, the front should be covered up with matting, or some other warm material, at night. The length of the coop must depend on the number of fowls that it is required to contain; but it is not advisable to place more than ten or a dozen together; and if strange fowls are put up, care must be taken that they agree well together, as otherwise the constant excitement would prevent their fattening. It occasionally happens that fowls are infested with lice to such a degree that they become irritable, and refuse to fatten; in these cases a little flour of brimstone dusted under the feather before cooping them, immediately expels the vermin. The age at which fowls should be put up to fatten is a very important consideration. When a pullet has once laid, she cannot make a first-rate fowl for the table. She should, therefore, be cooped before she shows symptoms of laying. The young cocks should be put up when the curved sickle-feathers of the tail begin to show beyond the straight feathers, or, as the country women say, when the tails begin to turn. If these ages are exceeded, the birds do not fatten so readily, and the flesh is not equal in tenderness and delicacy to that of younger birds. The best food for fattening poultry is sweet, fresh oatmeal or barley-meal, mixed either with scalding milk or water. Cooped fowls should be supplied with fresh food three times a day—namely: at daybreak, or as soon after as possible; at mid-day, and again at roosting time. As much as they can eat should be given on each occasion, but no more than can be devoured before the next meal; should any be left, it should be removed and given to the other fowls; as, if kept it is apt to become sour, when the birds will not eat it freely. The troughs for the soft meat should be scalded out daily, which can only be done conveniently by having a supply of spare ones. In addition to soft food, a supply of fresh, clean water must be constantly present, and a little gravel must be given daily, otherwise the grinding action of the gizzard, which is necessary to the due digestion of the food, does not go on satisfactorily. The supply of a little green food will be found very advantageous to health; a little sliced cabbage, or some turnip-tops, or a green turf to peck occasionally, being all that is required. A variation in the diet will be found very conducive to an increased appetite, and therefore the occasional substitution of a feed of boiled barley for the slaked oatmeal is desirable. Some feeders have a division in their troughs, or, still better, a small extra trough, which always contains some grains for the fowls to peck at.

Should the birds be required very fat, some mutton suet or trimmings of the loins may be chopped up and scalded with the meal, or they may be boiled in the milk or water preparatory to its being poured over the food, and the fat of fowls so fattened will be found exceedingly firm. In the course of about a fortnight to three weeks, at the utmost, a fowl will have attained, under this system of feeding, the highest degree of fatness of which it is capable; and it must then be killed; for if the attempt be made to keep it any longer in that state, it becomes diseased, from an inflammatory action being established, which renders the flesh hard and even unwholesome. When the fowls have arrived at a state fit for killing, they should be kept for twelve or fifteen hours without food or water, in order that the intestines may be as empty as possible, otherwise the bird turns green and useless in a short time. An objection to this mode of fattening will probably be made—namely, that it is expensive, owing to the cost of oatmeal. Barley-meal may be substituted, but it is not equally efficacious, and we strongly doubt whether it is any cheaper in the long run, as we believe that a fowl may be fattened at the same, or even less, cost on oatmeal than on barley-meal. In situations where good, sweet Indian corn meal can be obtained at a low rate, it will be found to answer quite as well as oatmeal; it contains a very large amount of oil, and it is invariably used in the States of America as a food for all animals put up to fatten. Wheat-meal is too expensive, but some small tail wheat is far superior to barley to place in the trough, as whole grain for the fowls to pick at.—*The Field.*

*It may be incidentally remarked here, that all unnatural or diseased growths upon plants, no matter what their shape or colour, which are caused by insects, are technically termed "Galls," by Naturalists.

The Breeder and Grazier.

The Ayrshire Bull, "Baldy."

THE above is a life-like portrait of a young Ayrshire Bull of excellent points and rare promise, the property of Messrs. Wolcott & Campbell, of New York Mills, N. Y., and first prize taker in his class at the last New York State Fair. He is an imported animal, and his stock, should he do well, will be an acquisition to the Ayrshire herds of this continent. In our account of our visit to the New York Exhibition, which appeared in THE CANADA FARMER of Oct. 16, we expressed our very high opinion of this splendid bull and we have great pleasure in presenting our readers with the above engraving of him, which has been prepared expressly for this paper.

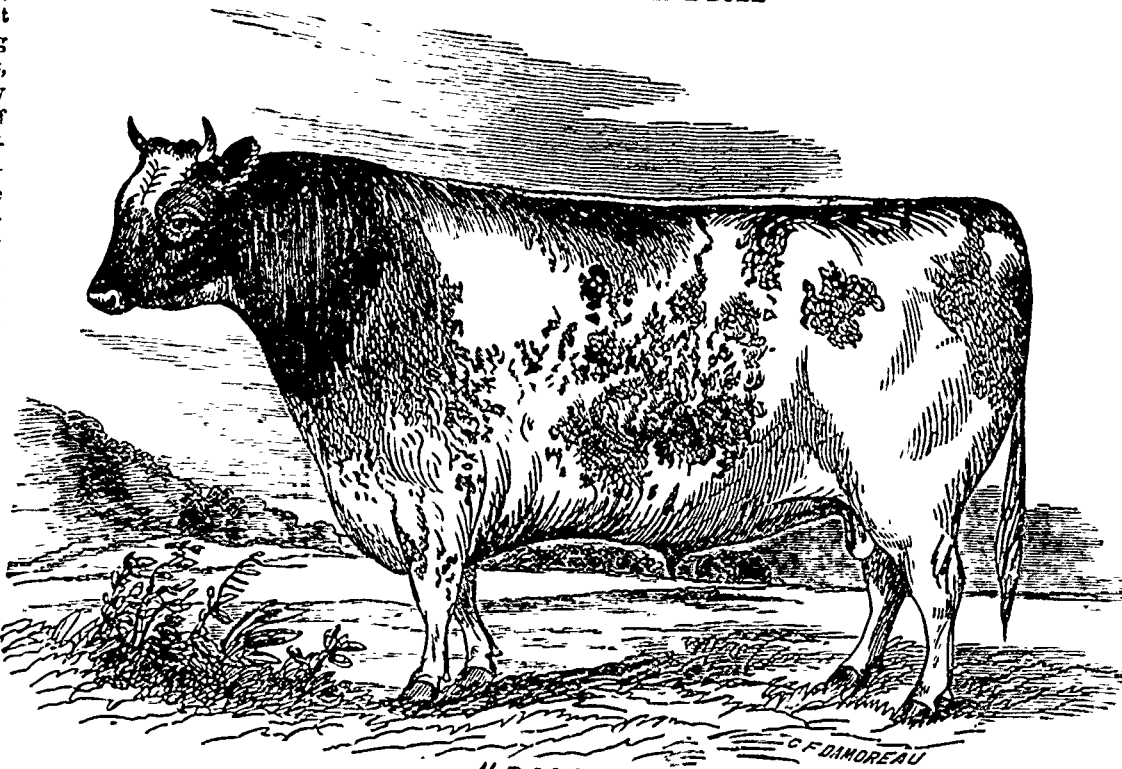
Report of the Cattle Plague Commissioners

THE Commission appointed by the British Government to inquire into the origin and nature of the cattle plague, and to consider what means may prove best adapted for its repression and cure, has issued its first report. It is a long and able document, entering minutely into the history of the disease, and offering such recommendations as have approved themselves to a majority of the Commissioners. The report opens with a few remarks on the object of the Commission, and then proceeds to state that the disease was first observed in Great Britain in the latter part of June. On the 19th of June two English cows had been purchased in the Metropolitan cattle market by a cowkeeper residing at Islington. On the 27th June, symptoms of disease in the same cows attracted the attention of the veterinary surgeon, the cows having remained from the 19th in one shed. The day after, similar symptoms were discovered by the same surgeon in a cow belonging to a dairyman at Hackney, which had been purchased at the same place on the same day. On the 24th two Dutch cows in the Lambeth shed were attacked; and these likewise had been bought in the market on the 19th. Immediately after, this, the disease broke out in many of the London dairies, and spread with great rapidity. The Islington cowkeeper lost his whole herd of 93; he afterwards bought more, and lost them, making a total of one hundred and seven deaths. In the early part of July the disease appeared in Norfolk, then in Suffolk and Shropshire; then it invaded one county after another in the south and west; and spread the north of England, crossed the Tweed, and spread its ravages in Scotland, until, on the 14th of October, it had extended to 29 counties in England, 2 in Wales, and 16 in Scotland. From the metropolitan market the disease seems to have crossed over the sea to Holland with some Dutch oxen, which had been shipped from Rotterdam to London, and which, after being exposed in the market for three successive days, were re-shipped from London to Rotterdam.

In the judgment of the Commissioners the disease is contagious—the contagion, they also think, is remarkably subtle in its nature and destructive in its effects. From the general characteristics of the disease, the symptoms which are exhibited during life, and the results of *post mortem* examinations, they conclude that it is identical with the rinderpest, or steppe murrain, known for so many generations in the northern parts of Europe. Nor do they consider this to be the first appearance of the malady among English cattle. As early even as 1348-9, after the black death had produced great mortality among men, a grievous plague appeared among the cattle, and swept them off by thousands. Afterwards at long intervals, in 1180, and in 1715, 1745, and 1757, it decimated British herds, and appeared to have taken deep root in the country. At these different periods commissions were appointed, and orders in Council were issued; but some of those regarded the disease as of "an incurable nature," and enjoined almost a wholesale destruction of the affected cattle.

Having thus traced the origin and defined the nature of the disease, the Commissioners next proceed with certain recommendations for its suppression.

THREE-YEAR-OLD AYRSHIRE BULL



"BALDY."

These are six in number, and are of a very simple and summary character. In the first place, they recommend that Government should have the power to suspend for a limited time the movement of cattle from one place in Great Britain to another; and that they should extend or shorten such period, and renew the prohibition as often as circumstances may render necessary. In the second place, the Commissioners are of opinion that the power to seize and slaughter vested in inspectors by the Consolidated Order may properly be withdrawn; or that, if retained, it should be exercised only in cases where the inspector's directions as to the separation of sound from diseased stock, &c., or any general preventative or sanitary regulations issued by the Government, are not complied with. The third recommendation has reference to the importation of foreign cattle; and should their first recommendation be entertained, and an absolute embargo be placed on all traffic in cattle with Great Britain, then the commissioners think that imported cattle should be slaughtered at the ports of landing. And further, they express an opinion that cattle should be allowed to land at certain ports only, where proper facilities can be afforded for inspection and transport. Fourth, during the period of prohibi-

tion, whether it be absolute or limited, the Commissioners suggest that no cattle should be allowed to be turned on common or unenclosed ground. In the fifth place, they urge that steps should be taken for obtaining periodical returns of all the horned cattle and sheep within the area of every parish in Great Britain, and of their sanitary condition, with special reference to the present disease. Finally, the Commissioners deem it their duty to make some reference to Ireland, admitting that the disease has not yet broken out in that country, and that therefore, there is no necessity for the application of the measures which have been recommended for Great Britain. Still there is some possibility of the appearance of the disease there; and hence it is important to take precautionary measures, so that "the calamity may be averted from Ireland altogether."

Such are, in substance, the recommendations of the majority of the Commissioners. But on some of the points herein mentioned, it seems there was not unanimity of opinion. Earl Spencer, Viscount Cranbourne, Dr. Bruce Jones, and Mr. Read, have issued a separate report, stating that they cannot join the other members of the Commission in recommending

the total stoppage of all movement of cattle in Great Britain. If such a measure were practicable, they say, it would be more effectual than any other in extirpating the disease. But they do not think it practicable. It would involve an interference with the course of trade at variance with the national habits; and it would demand sacrifices from large numbers of persons who are far removed from the presence of the disease, and who will, therefore, not see or feel the necessity for so stringent a measure. Another separate report is also appended from Mr. McLean, who opposes the interference with the traffic in cattle-

altogether, and who states that, in his opinion, the evils arising from it will be far greater than those arising from the disease itself.

In conclusion, the Commissioners publish a supplementary report, containing sanitary regulations for preventing the spread of the disease, certain remedies when the disease has attacked a locality, and measures for disinfecting sheds which have been affected. The pith of all these suggestions is, that increased attention should be given to secure strict cleanliness, good drainage, efficient ventilation, the separation of cattle that show symptoms of disease from those which are sound and healthy, and in all cases to avoid the overcrowding of cattle-sheds and cow-houses.

Such is the present result of the inquiries which have been made, and of the evidence which has been obtained by the Government Commission. It is impossible to deny to the Commissioners the credit of great industry and care. Their labours have extended over little more than a month. They have waded, during that time, through an immenso mass of evidence, and have formed and published their convictions and recommendations with the utmost elaboration. Yet, it is very problematical whether any real

practical good will follow as the result of their inquiries. They have added little to the information which had previously been obtained on the subject, and the value of their recommendations is very much impaired by the division of opinion which prevailed amongst themselves, and which is now proclaimed to the world. There may be some little satisfaction in the assurance that this formidable plague is nothing more than the well-known rinderpest of Germany and Russia, and is, after all, susceptible of efficacious treatment. It may have been imported; it may have sprung up without infection in some of the London cowsheds. But the symptoms are identical with those of the steppe murrain of the North; and, as far as practicable, the disease should be treated in the same manner in Britain as in Germany. The practical recommendations are, for the most part, good. They are such as commend themselves at once to the common sense of mankind. In many cases the value of them has long since been tried. As preventive measures, nothing, we are persuaded, can be better than cleanliness and pure air; and allowing even that an effectual remedy may be applied after the disease has set in, still, in this, as in other cases, there is wisdom in the proverb that prevention is better than cure.

SINGULAR DEATH OF BULLOCKS.—*The Farmer* (Scottish) has the following:—"Earl Manvers, of Thoresby Park, during the past fortnight has lost nineteen fine beasts. Report in this vicinity soon ascribed the cause to the fatal *Rinderpest*; but on a *post-mortem* examination being made by an eminent professor of the Metropolitan Veterinary College, it was found death occurred from their having eaten too many chestnuts and acorns, which disordered their stomachs, and so brought on typhoid fever."

The Apiary.

Bee-Keeping.

If a man engages in bee-keeping with the idea that he shall make a fortune, he will simply be disappointed. Tens of thousands are disappointed yearly. They are led to investments in bees, because some one swarm or more has realized great profits. These are accidents, just as large pumpkins, and extra crops, in favourable seasons are. We must not calculate on general principles from mere accidents, for these are the exceptions.

Bee-keeping is profitable to a certain extent, that extent depending, like other things, much upon the manner in which it is conducted. According to the statistics, bees are worth about four dollars per swarm, that is they realize a profit making them worth that. This is the experience of the world, as bee-keeping generally runs. Some cases are more successful. Each one, in engaging in bee-keeping, intends to be this successful case—yet he turns out with the ordinary profit. He stands just as much chance to lose as to make. The probability is, that with the usual care he will have the usual moderate profits. Were it not so, and bee-keeping were the profitable thing these enthusiasts imagine, everybody would engage in the business. Be not deceived; bee-keeping is moderately profitable when fairly treated. So is hen-keeping. So is anything which people magnify to great heights—to be let down after trying. With moderate expectations and proper treatment, any of the departments of life can be made remunerative.

We will here mention one of the principal things in bee-keeping. Never engage in bees—at least largely—in a neighbourhood where they are already kept, as the pasture, so to speak, is cropped short. There is but a certain quantity of honey in each locality. Exhaust this, which is done by a large stock of bees, and there will be little to get. A new country is generally favourable to bees; but any country is where there is much bloom and few bees. In a locality crowded with bees, kept at most but a few swarms, as these will exhaust the honey in their immediate neighbourhood. You will get the same honey that you would if you had a large number of swarms, in which case the large number of swarms among which the honey is divided, would not pay income on the amount invested. The fields are a pasture for bees as well as cattle, and they must not be overstocked.

RULES FOR PURCHASING BEES.—Select two year old stocks of large size, that swarmed the previous year. It has been demonstrated that such stocks have young and vigorous queens, and are generally well conditioned, promising a healthy generation. A very old stock should be rejected, for they will be found of small size and insignificant in numbers.—*Flander's New Bee Book*

Official Notice.

BOARD OF AGRICULTURE FOR UPPER CANADA.

THE members of County Agricultural Societies are requested to take notice that the members of the Board of Agriculture whose terms of office will expire in January next, in duo rotation, in accordance with statute, but who are eligible for re-election, are the following, viz.:—Hon. H. Rutten, Cobourg; Hon. G. Alexander, Woodstock; R. L. Denison, Esq., Toronto; F. W. Stone, Esq., Guelph; and that it will be the duty of such Societies, at their annual meetings in the third week of January next, to nominate four proper persons to be members of the Board of Agriculture, in the place of such retiring members.

HUGH C. THOMSON,

Secretary.

BOARD OF AGRICULTURE OFFICE, }
Toronto, Dec. 11, 1865.

To the Readers of "The Canada Farmer."

Subscribers to "The Canada Farmer" will please observe that this Issue is the last of the year, and that the next paper will not be sent to any one who does not remit for 1866. Our Club terms will be found advertised elsewhere. Persons engaged in getting up Clubs are requested to close up their work at once, so that subscribers may receive their papers without delay.

Bound Volumes.

The current volume of "The Canada Farmer" is now ready, consisting of 24 numbers, and comprising 384 pages of reading matter in a bound form. The binding will be charged 30 cents in addition to the subscription price, making \$1 30 in all for the volume. Parties desirous of having their Nos. for the present year bound, will please send them to us, securely packed, with their name and address, together with 30 cents in stamps or otherwise, and we shall return them bound, free by post. Vol. I, containing the numbers for the year 1864, may also be had at the same price.

The Canada Farmer.

TORONTO, UPPER CANADA, DEC 15, 1865.

Publisher's Notice.

TO THE FARMERS OF CANADA.

We have to remind subscribers to THE CANADA FARMER, that the year's subscription ends with the present number, and that in accordance with our invariable rule, all papers will be stopped for which a fresh remittance is not made. We have found the cash system to work so well with THE FARMER, that we have adopted it for all our publications. A few who complained at first are now satisfied that the advance system is the best for all parties. On the eve of a new volume, we desire to call the attention of our readers to a few facts and figures, respecting the circulation of this journal. Looked at from some points of view, the subscription list of the CANADA FARMER wears a most gratifying and encouraging appearance, and we have every reason to be satisfied thus far with the reception it has met with at the hands of the public. Our Prospectus announced that the Proprietor and Publisher "had determined to make the experiment whether a first-class Agricultural Journal could be sustained in Canada." That experiment has been thoroughly successful. It is no longer a question, but a fixed fact, that such a journal can be sustained in Canada. The ordeal to which it has been subjected during the past year, has been a most severe one, from the prevalence of hard times among agricultur-

ists, and the adoption of the cash in advance principle as our invariable rule. Notwithstanding the severity of this test, our subscription-list held its own wonderfully, and gave abundant evidence that though only of a year's growth, this journal had rooted itself most firmly among the farmers of Canada. Now that we have been favoured with a bountiful harvest, followed by high and brisk markets, so that money is plentiful and business flourishing, we may reasonably expect a greatly increased circulation. We shall spare no pains or expense to make the CANADA FARMER a worthy representative of the agricultural interests of the country, and doubt not that with larger experience and wider observation, it will improve upon itself. We must, however, repeat the statement made in our first number: "If the paper is to be made what it ought to be, it must be GENEROUSLY, UNITEDLY sustained." The CANADA FARMER is a marvel of cheapness. In what other form can a volume of 384 pages quarto, profusely and beautifully illustrated, be had for the small sum of one dollar? The calculations respecting it as a business enterprise, have been based all along upon its commanding a very large circulation. Considering that we have in all Canada, no fewer than 237,654 farmers, 131,982 of whom reside in the Upper Province; and that this is the only Agricultural Journal published in Upper Canada, is it not reasonable to expect, that with proper exertion, an immense circulation may be secured?

Our object in calling attention to this subject, is more especially to stimulate the officers and members of Agricultural Societies to make a grand effort to increase our subscription list by means of clubs. From the first, special inducements have been offered in this direction. During the past year, in addition to a most liberal scale of club rates, the CANADA FARMER has been supplied to Agricultural Societies ordering more than 125 copies, at the low price of SIXTY CENTS. Forty-two Societies availed themselves of these terms, and sent lists varying from 101 to 725. A comparison of these and other lists is at once a pretty fair index to the activity of these several societies, and a tolerably accurate guide in forming a judgment as to what might be accomplished were all to exert themselves as some have done. Thus the County of Durham, the banner County of the CANADA FARMER subscription-list, sends us 725 names from its Agricultural Societies, and we have independently of the society lists, 843 subscribers in that County; in all 1,568. The County of Durham contains a population of 39,115, of whom 3,386 return themselves in the last census as farmers. Sixteen Counties in Upper Canada have a larger agricultural population than Durham. One of them, the County of Huron,—has a farming population more than double that of Durham, viz: 6815. Huron sends us a list of 436 names all told, while Durham with less than half the agricultural population sends us a list three and a half times larger. We have no idea that the Durham people feel that they have reached the highest point they can attain, yet if every County in Upper Canada yielded as well in proportion, our subscription list would swell up at once to 50,000. It will perhaps be urged that a comparison between an old County like Durham, and a new one like Huron, is hardly fair, especially as the newer parts of the county have felt most severely the pinch of the recent hard times, resulting from a succession of poor crops. Admitting a degree of force in this objection, it must still be remembered that Huron, though comparatively new, is settled not by raw emigrants just arrived from the Old world, but very largely by experienced Canadian farmers, who have sold out their homesteads in the front townships, to purchase larger tracts of land where their families may spread themselves out, and who therefore may be expected to appreciate highly and read extensively an agricultural journal. Let us however institute a few other comparisons. Running our eye down the alphabetical list of counties, and singling out a few of the more notable examples; we find Brant, an

old and rich section of country, with a farming population of 2,333 persons, furnishing Society-lists to the number of 39, and single subscribers 222, total 261. Bruce, a new county, but with a farming population of 4,185, sends a Society-list of 85, and singles 190, in all 275. Carleton, with a farming population of 3,721, furnishes a Society-list of 50, and singles 45, irrespective of the city of Ottawa; which, with a farming population of only 39, sends a list of 65. Total for Carleton, inclusive of Ottawa, 160. Dundas, with a farming population of 2,196, sends a single list of 43: total for Dundas. Elgin, with a farming population of 3,248, sends singles to the number of 203 names, no Society-list. Grenville, with a farming population of 2,478, furnishes a Society-list of 13, and singles, 83; in all 96. Glengarry, with a farming population of 2,476, has no Society-list, but merely contributes 71 singles. Grey, with a farming population of 5,713,—second only to Huron in the number of its agricultural inhabitants, furnishes a single list of 125; total for Grey. Haldimand, embracing a fine section of country, and having a farming population of 2,629, has no Society-list, but sends 119 singles. Kent, with a farming population of 3,453, furnishes Society-lists of 60 names, singles 144, in all 204. Lincoln, in some respects the garden of Canada West, with a farming population of 1,993, sends no Society-list, but has 173 singles. Leeds, with a farming population of 3,706, sends Society-lists of 38 names, singles, 75; total, 113. Middlesex, a splendid farming region, with 5,930 farmers tilling its fertile soil, sends us Society-lists of 155 names, and singles, 509; total, 664. Norfolk, another fine section of country, and long-settled, with a farming population of 2819, has no Society-lists: 118 singles form the total for "glorious old Norfolk!" Oxford, one of the finest farming sections of Canada, with an agricultural population of 4,353, sends us Society-lists of 123 names, singles 407; total 530. Renfrew, with a farming population of 2,679, sends 61 names on Society-lists, and 106 singles; total 167. Stormont, with 1,819 farmers within its bounds, furnishes a single list of 10!—Perth, with 4,513 farmers, sends 162 names from Societies, and 391 singles; total, 553. Simcoe, with an agricultural population of 4,614, sends from Societies 141, and singles, 284; in all 425. Waterloo, with 2,792 farmers, furnishes 325 single subscribers. Welland, embracing within its bounds, most of the far-famed Niagara District, with a farming population of 2,181, sends singles to the number of 129,—grand total for Welland! Wellington, fertile, turnip-growing, stock-raising Wellington, with 5,407 farmers fattening on its unrivalled soil, sends 155 Society names, and 486 singles; total 641. It is clear from these comparative statements, that with moderate effort, the circulation of the CANADA FARMER can very easily be doubled, trebled, and even quadrupled. In addition to the brilliant example set by the County of Durham, other instances may be cited to show what has been done in some places, and can easily be done in others. Thus, the County of Wentworth sends us 1,083 subscribers. This, however, includes the City of Hamilton, which to its praise be it recorded, sends us 500 names. This fine list is chiefly due to the activity of the Horticultural Society of that city. Even Toronto, in this respect, "pales its ineffectual light" beside the radiant example set by "the ambitious little city," furnishing as it does only 208 subscribers. The County of York, inclusive of Toronto, sends us a list of 895, which might easily be doubled were suitable exertions made to that end. Why, for instance, cannot the combined efforts of the Toronto Horticultural and Gardeners' Improvement Societies, in a city of more than twice the population, at least equal Hamilton? The County of Hastings, with little more than two-thirds the population of York, and no Toronto in it, furnishes a list of 812. Halton, with only 1,877 farmers, has 503 names on our list; Lanark 737; while Northumberland sends us the respectable number of 1273 names.—

Little Russell, with only 690 farmers to boast of, furnishes 44 names.

It is not the least encouraging feature in our circulation, that we have many patrons outside the farming community. Hamilton is only credited with 26 farmers in the occupation department of the census, yet as we have seen, it nobly sends 500 names to our books. Toronto has only 67 farmers within its bounds, and yet takes 208 copies. Ottawa, with 39 farmers, furnishes a list of 65. The census does not tell us how many farmers reside within the precincts of Brockville, but to its honour it sends us 195 subscribers. In our first issue, we stated that it would be our aim to make the CANADA FARMER indispensable to every one who cultivates a rood of ground, and from the amount of space devoted to Horticulture, we may fairly include the gardening as well as farming community within our parish. Moreover, there are not a few pent up in city and town houses, who have not even a rood of ground to cultivate, who look forward to an escape some day into the country, and have many pleasant anticipations of rural life. To such the perusal of a journal such as this, is not only a preparation for the pursuits in which they hope to spend the even-tide of life,—but with their decided rural tastes is very like looking out of a town or city window into the country. Our Household, Poultry Yard, and Miscellaneous departments, are useful to others besides farmers and gardeners, and during the coming year, the department of Natural History will enhance the interest of the paper to general readers.

It is decidedly encouraging thus to survey the field of possible circulation, and see what room there is for indefinite expansion. And we feel that in urging the officers and members of Agricultural Societies to take up this matter, we are pleading for what, more than almost any other means, will tend to the increased prosperity of these organizations themselves. It is the reading, intelligent class of people who take an interest in such Societies; and, moreover, the offer of THE CANADA FARMER at its lowest club rate, is often found to be an effectual argument inducing membership in these Societies.

We cordially tender our best thanks to all who have laboured in the past to increase our circulation, and beg to assure our kind friends in various parts of the country that we highly appreciate, and shall ever gratefully remember their endeavours. Even in those counties where the lists are comparatively small, we are aware that there are those who have done what they could. Such deserve, and will please accept our hearty thanks. We beg a continuance of these favours from old friends, and trust they will be emulated by new ones. In this matter, union and co-operation are needed. Let each in his sphere and circle of influence do something, and the work will be accomplished to the satisfaction of all.

"THE FARMER'S GATE."—We would direct attention to an advertisement in our present issue under the above heading. Having two gates in satisfactory operation on our own premises, which were constructed according to the plans advertised, we can confidently recommend them. The cheapness and simplicity of this gate, are such as to leave no excuse for the existence of bars. Let every farmer, not properly provided with gates to his fields, improve his leisure moments during the winter and make a supply.

Notice of Publications.

THE RECIPROCITY TREATY, pp. 15.—This pamphlet gives the history, general features, and commercial results of the important Treaty to which it relates. It is the admirable speech of the Hon. Joseph Howe, of Nova Scotia, delivered at the great International Commercial Convention held in Detroit last July, put in pamphlet form, for wider circulation and more easy reference. Published by T. and R. WHITE, Spectator Office, Hamilton.

CHRISTIAN UNION IN CANADA: *its Desirableness, Possibility, and Extent.* By RICHARD WEST, pp. 20.—We have received from the publishers, W. C. Chewett & Co., a copy of this pamphlet, the object of which—the promotion of Christian Union—is certainly a very laudable one.

NEW MUSIC.—We acknowledge the receipt from Messrs. A. & S. Nordheimer of the following pieces of new music: "DEUS MISERERATUR," ("God be merciful to us and bless us"), by MAMMAT, arranged for four voices. This is a very fine piece of music, specially suited for church choirs, and appropriate either for ordinary or anniversary occasions. The manner in which it is got up reflects much credit upon the enterprising publishers. THE BAND: a collection of choice music, such as is performed by the military bands. A selection of ten of the most admired pieces is here presented to the musical public, who will, no doubt, show their appreciation of them by purchasing them largely. Though it is band music which is selected, the whole collection is adapted to the piano and suited to the drawing-room. The Messrs. Nordheimer deserve much praise for their endeavours to furnish choice music of Canadian publication, and we have no hesitation in saying that the entire "get-up" of the pieces issued by them equals the issue of any other music-publishing-house on the continent.

County History: A Good Example.

MESSRS. McLagan and Innes, the enterprising proprietors of the *Wellington Mercury*, announce, in a circular, a copy of which has been sent us, that they have been engaged for some months past in collecting materials for a "History of the Early Settlement of Guelph, the Villages and Townships in the County of Wellington," and that they have made such progress as will enable them to commence its publication in the *Mercury*, in the first week of January, 1866. A portion will be given in each week's *Mercury*, and it will be continued weekly until the whole is finished. We quote a paragraph from the circular above mentioned:—"We are happy to inform you that many of the most intelligent and oldest settlers in the county (whose names and reminiscences will be given as the work progresses) will be contributors to it. In addition, we have, after long and patient search, succeeded in collecting many rare and valuable documents, books, letters, reports, &c., bearing on the early history of the County. From the actual experience and observations of settlers, and from the information to be obtained from these records, we will thus be able to lay before the public as full, complete and authentic a history of this district as it is possible to give. Many interesting reminiscences, many exciting stories, many amusing adventures, and many important facts not generally known, will enliven these sketches. As a record of the past, it will be most interesting to the old; and as a means of supplying information on a subject with which they are but slightly acquainted, it will be equally valuable and interesting to the young. The history of each Township will be brought down to the present time, and its progress from the period it was first settled till now, can therefore be easily traced."

This project, if carried out in a lively and entertaining manner, as we have no doubt it will be, cannot fail to prove an attractive feature in the Journal above-mentioned, and will be a valuable contribution to the local history of Canada. We cheerfully give publicity to the matter, at once, in the hope of aiding somewhat in the accomplishment of the object aimed at, and suggesting to others the performance of a similar duty, in other parts of the country. Many interesting facts are fast becoming traditional, and their memory will be utterly lost, unless the hand of some historian hastens to record them. We know of but few better purposes to which a portion of space, in a local journal, can be devoted.

British Cleanings.

MILDNESS OF THE SEASON.—A British contemporary says: "A second crop of pears has been grown at Haylee, near Ipswich, where strawberries, now nearly ripe, growing in the open air, may be seen."

HOMOEOPATHIC TREATMENT OF THE CATTLE PLAGUE.—*Bell's Messenger* states:—We do not know from an official source what measures have been taken by the Privy Council to secure a fair trial for the homoeopathic mode of treatment, but we understand that a meeting of the Council on Saturday week, a resolution to the effect that the homoeopaths should be permitted to try their system, was agreed to. The resolution, we believe, was strongly supported by Lord Granville. The experiments will be carried out at the Royal Veterinary College, Camden Town, and will, we understand, be continued until Christmas.

ATTACK UPON A MAN BY AN ELEPHANT.—We clip the following from *The Field*:—"Last week, as Edmonds's (late Wombwell's) menagerie was entering Maidstone, a boy in the crowd offered the elephant an apple. One of the men in attendance interfered, whereupon the animal seized him round the waist, dashed him to the ground, and tried to gore him with his tusks. The man was crawling away, when the animal again seized him, and dashed him against a wall. He was at last rescued, but was found to be severely injured. The keeper, who was riding on the elephant, did all in his power to divert his attention, but without success. The animal is described as generally very quiet and docile; but it is said the injured man once teased the animal in a manner which it never forgot."

ENORMOUS BEECH TREE.—The *Sheffield Telegraph* has the following:—"It will be in the remembrance of some of our readers that in the month of June last a very large beech tree, supposed to be the largest of its kind in England, was blown down in the Workop Manor Park, the seat of Lord Foley, and with whose family, as well as the Norfolk family, the tree was a great favourite. This tree has since been purchased by Mr. J. Couton, timber merchant, of Workop. Its weight was near upon forty tons, and nine feet from the root, the bole of the tree measured eight feet in diameter, and took a number of men five days, at the cost of £1 per day, to prepare it for removal, and was equal to thirty-eight horse-loads. The tree was taken to the purchaser's saw-mills, to be cut into chair-wood and other purposes."

COMPARATIVE PRICE OF PRODUCE IN IRELAND.—On this subject the *Clonmel Chronicle* discourses as follows:—"In 1850 and 1851 butter was selling in Tipperary at from 36s. to 40s per firking of 69 lb.; it is now 50s. for the same quantity. The price of bacon has increased in the same proportion. In 1851 the farmer thought himself fortunate in getting 28s. or 30s. per cwt.; now he will grumble if the price falls below 55s. Here, then, in reference to our two staple commodities, we have the price of butter and bacon within a fraction of being doubled since 1851, and this notwithstanding the importations both from the United States and from Canada. These importations since the conclusion of the American war, have greatly fallen off, and it is expected that for some months to come they must prove as deficient as at present."

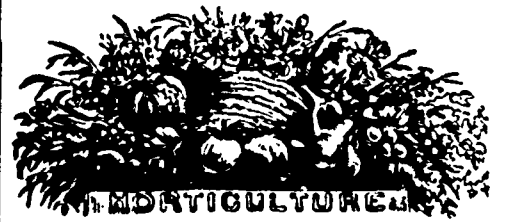
FEEDING PROPERTIES OF THE MANGOLD.—A correspondent of the *Scottish Farmer* writes:—"The mangold, like the turnip and all other root crops, varies in feeding properties according to soil, climate, manurial effects and other circumstances under which it is cultivated. According to chemical analysis, it is more valuable for feeding purposes than the common turnip or swede. In practice, during the autumn and early winter months, we consider it inferior in feeding value to good swede turnips; whilst during March or April, and as the season advances, we consider it almost invaluable, not only for feeding, but as food for store stock. We have used it rather extensively for some years, when pulped and mixed with cut straw, and allowed slightly to ferment, in which case chemical changes takes place, enabling the animal more easily to assimilate the substance of the food. We have used and found the roots equally valuable for ewes sucking their lambs, and for dairy cows in milk; and when given in conjunction with oats, beans and other nitrogenous foods, the quality of the secretion is not deteriorated in value. The mangold being originally a native of a warmer climate than that of the United Kingdom, other things being equal, we invariably get our best crops during dry, hot summers. The past season was, therefore, unfavourable for the production of heavy crops of this root. Ours was greatly under the average of former years."

PLAGUE OF RATS AT DRAEMAR.—We learn from the *Aberdeen Free Press* that "a colony, or rather an army, of these pernicious vermin have recently migrated into our mountain land, and are literally swarming in myriads over the length and breadth of the district, causing utter dismay to many of the lieges. Every homestead, farm-yard, and barn is teeming with them, and the destruction to property in many cases brought under our notice is tremendous. Our shopkeepers have had whole webs of cloth cut through and through, and sweets and fruit disappear at fabulous rates. One man, living in a bothy in the wilds of Glencallater, has been actually under the necessity of leaving his domicile, the voracious wretches having disposed of all his eatables, attacked the bed, and cut up the blankets and bedding piecemeal. To crown their savage voracity, a few days ago the farm manager at Allanquoich had to run out of the stackyard, obliged to take shelter."

WATERPROOF HARNESS BLACKING.—*The Field* publishes the following answer to a correspondent:—"Capercailzie will find the following an excellent receipt for harness blacking. It appeared in your paper many years ago, since which I have used no other; and being out in all kind of weather, am perfectly convinced of its superiority to those sold, and it is not so expensive:—Beeswax (shred fine) 8oz., turpentine sufficient to cover it; let them stand till the wax is dissolved (three or four days); Ivory black 4oz., olive oil (1 use neatfoot oil) 2oz., Prussian blue 2oz. Rub the ivory black and Prussian blue well together to a fine powder in a mortar, then add the oil, and gradually the other ingredients, and thoroughly mix them. If it gets hard by keep, soften with turpentine. I have only one brush used—one end for the blacking, the other for polishing."

ABOUT HYDE PARK.—We clip the following from an English contemporary:—"As soon as it was enclosed, it appears to have been promoted from a manor into a park, with a "keeper," who eventually was dignified with the title of "ranger." The first keeper on record was George Roper, Esq., whose pay was 6d. a day. In 1551 the office was divided, and the salary raised to 4d. a day, with pasture for twelve cows, one bull, and six oxen. The keepership appears to have been held successively by Carey, Lord Hunsdon, Robert Cecil, Earl of Salisbury, Sir Walter Cope, Sir Henry Rich, and the Earl of Newport, before the Rebellion, when, three years after the death of Charles I., it was resolved that Hyde Park be sold for ready money." The park, as we learn from the printed particulars of the sale, was put up in three lots, the whole, 621 acres, which it then contained, realizing £11,068, 6s. 8d. At the Restoration, Charles II. gave the keepership, with the title of "ranger," to his brother, the Duke of Gloucester, who was succeeded by Colonel James Hamilton, one of the grooms of the bedchamber, after whose widow, Mrs. Elizabeth Hamilton, the houses built near Park Lane were called Hamilton Place."

ONE WAY OF MAKING A BAG.—The Paris Correspondent of the *Irish Times* writes as follows:—"Sportsmen in France as well as in England are often exposed to the shafts of ridicule, especially if unlucky; but fortunate sportsmen sometimes do not escape. A certain marquis lately excited a good deal of jealousy in consequence of his extraordinary success in bagging game. A doctor of his acquaintance, no great hand with a gun, was particularly envious, and he was invited to set a watch upon the marquis, by which means he obtained the secret of his boasted success. A dinner was appointed at the chateau of the marquis, and the doctor made a heavy bet with him that on this day he would not kill a single head of game. The marquis, however, came at the appointed time, and, as usual, had his bag filled with hares, partridges, pheasants, and snipes. The doctor commenced to joke with a little pleasant bantering, and remarked that if the dead could speak they could tell a strange tale of the way in which the marquis became possessed of his game. The marquis retorted with the remark that this would be exactly the case if the doctor's patients could give an account of the doctor's treatment of them.—Hardly had the laugh subsided when the doctor opened the mouth of one of the hares and pulled out a piece of paper, on which was written, 'The marquis bought me of—' The doctor then explained that he had been round to all the game dealers of the neighbourhood, and had bribed them to put such a ticket into the mouth of every bird or hare bought by the marquis on that day. Anglers sometimes buy their fish to save appearances. A popular writer, remarking upon this fact, says, "If you want fish, take not a line, but a basket, and go not to the river, but to the market."



THE LANGUAGE OF FLOWERS AND FRUITS.—The Lilia in April—"Give me leave." The Rosa in June—"Well, I'm blown." The Asparagus in July—"Come and cut again." Peas in August—"Shell out." The Apple tree in September—"Go it my pippins." The Cabbage in December—"My heart's my own."

A MONSTER LEMON.—It is thought that California true to her invariable principle of being ahead in everything, has now produced what is probably the largest lemon ever grown. The last steamer brought up from Los Angeles a lemon which measures 18½ inches in circumference one way, and 13 inches the other, and is sound and perfect.—*San Francisco Mining Press.*

NEW WATERMELON.—At the recent Chester county Agricultural Exhibition, held at West Chester, one of the judges on fruits advised us of a superior watermelon, brought to the attention of the committee, exhibited and grown by Bayard Taylor, on his farm in Chester county. It has the remarkable property of keeping through the winter and preserving its delicious flavour unimpaired. It promises to be a great acquisition in this line. Bayard Taylor informs us he obtained the seed himself on the Volga, in the interior of Russia, from a melon grown on the Persian shore of the Caspian Sea, not being aware at the time that it possessed the property of long keeping after being gathered, although he knew that there were such melons in Russia. It seems to retain this property here, as the melons raised this season have now been six weeks off the vines, fully ripe, and promise to keep for three months yet.—*Morris Rural Adv.*

DOUBLE GRAFTING VINES.—A correspondent of the *Gardeners' Chronicle* writes on this subject as follows:—"I have found that double-grafting of the golden Hamburgh vine has strengthened the footstalks of its berries. On its own roots in a late vinery and in an unheated border it produced large loose bunches with weak footstalks. Desiring to have it in an early vinery, I worked it on the black Hamburgh, on which it grew vigorously, but still it produced loose bunches with tender footstalks. The same spring and in the same house I had it worked on a strong shoot of the muscat of Alexandria, which had been grafted on the black Hamburgh the previous spring. Cutting back the muscat to within six inches of the black Hamburgh, the scion of the golden Hamburgh was worked on the muscat, adopting the common tongue system of grafting. It fruited at the same time as the above, but the result was different, the bunches being compact and well filled with berries, having strong footstalks, apparently fit to stand carriage equally well with any other grape, and in every respect like a well-finished bunch of its 'black brother.'"

WINDOW GARDENS.—The efforts recently made to encourage window-gardening are likely to be followed by a beneficial effect. It was indeed interesting on a late occasion in Edinburgh, to behold the floral productions of closes in the High-street and Canongate, noted for their crowded population and forbidding atmosphere. The old iron pot bearing a treasured geranium, the twining plant in its rude wooden or earthenware can, forming its coils around hoops picked up by a cinder-woman among the ashes thrown out into the streets, and numerous other flowering plants, showed the advantage of encouraging the working classes to care for plant-growing. The posies gathered by the children from five to ten years of age were objects of great interest, and proved that the prizes offered had set the young to collect the beautiful gems which grow wild in the fields, in the meadows, and on the hill-sides; the small collection of named weeds sent by a young boy could not be seen without calling forth sentiments of the warmest sympathy. While the wild flowers of nature or the cultivated plants of the window afford sources of pleasure to the poor, the productions of the garden supply recreation to the rich; thus the floral treasures of the earth contribute to the comfort and gratification of all members of society. In sunshine and shade, in prosperity and adversity, in the early days of youth, in the vigour of manhood, and in ripe old age, the garden is an object of interest. The philosophers of old meditated in academic groves, and many a man famed in literature and science has derived hints from meditation among flowers.—*Sunday Magazine for Oct.*

Miscellaneous.

A Word to Smokers.

As fires, when they occur in winter, owing to high winds and other causes, are often very disastrous, we should take especial pains to guard against them.

A smoker should never lay his pipe away, or cast the stump of his cigar down, without being certain that the last spark has been extinguished.

"If you ever think of marrying a widow," said an anxious parent to an heir, "select one whose first husband was hanged; for that is the only way to prevent her from throwing his memory into your face, and making annoying comparisons."

An innkeeper lately complaining to a gentleman, that his house was greatly infested with rats, and that he would willingly give a considerable sum to get rid of them, was on the following morning thus accosted by a Frenchman, after he had received his bill, "I shall tell you what way you shall get rid of de rat."

RACING AT AGRICULTURAL FAIRS.—The California Farmer complains of the "meagre and pitiful" exhibition of agricultural products at their late State Fair.

WORLD'S FAIR FOR 1867.—Preparations for the Paris exhibition of 1867 are going on. The park which is to surround the central building is to be laid out in the English style and will contain an international theatre, and a lawn where the games of all nations will be played.

HOW TO JUDGE THE WEATHER BY THE SKY.—The colours of the sky at different times afford wonderfully good guidance. Not only does a rosy sunset presage fair weather, but there are other tints which speak with clearness and accuracy. A bright yellow in the

evening indicates wind; a pale yellow wet; a neutral gray colour constitutes a favourable sign in the evening—an unfavourable one in the morning. The clouds are full of meaning in themselves. If they are soft, undefined and feathery, the weather will be fine; if the edges are hard, sharp and definite, it will be foul.

Markets.

Toronto Markets.

"CANADA FARMER" Office, Dec. 15, 1865

We have to report a dull and declining market. In the absence of grain, quotations are almost nominal.

Flour—market nominal, no demand, and few transactions. Fall Wheat dull at \$1.20 to \$1.30, according to quality. Spring Wheat—Sales at \$1.00 to \$1.10. Barley dull at 60c to 70c per bushel. Potatoes—quiet, at 35c to 65c. Oats quiet, at 35c to 36c. Provisions—improving; Butter inactive, at 18c to 20c per lb for keg; choice dairy, 20c to 21c. Hops 60c to 65c. Cheese—American prime, 14c to 15c. Eggs—market steady, with fair supply; selling at from 15c to 18c for packed; 18 to 21c for fresh. Hides—dull, and selling at \$7.00 to \$8.00 per cwt.; pork, quiet; mess, \$21 to \$22 per barrel; prime do., \$21 to \$22. Hay—in good supply at from \$3.50 to \$4.00 per ton. Live Stock—The market is moderately active and prices are firm. The hogs here given are off red by the butchers and drovers in this market per 100 lbs, dressed weights:—Cattle, 1st Class, \$7, do 2nd class, \$6; do inferior, \$5 to \$5.50. Calves, \$5 to \$6. Sheep, prime heavy, each, \$5 to \$6, do light, each, \$4 to \$4.50. Lambs, each, \$2.50 to \$3. Pigs—prime, farmers' packed, \$1.50 to \$2.50, good shipping barrels, \$2 to \$4.

Hamilton Markets.—Dec. 11.—Flour, XXX, \$7.50; extra, \$8 to \$9.50; Family, \$6; superfine, \$5.50. Corn meal, per 100 lbs, \$1.75 to \$2. Oatmeal, per 100 lbs, \$2.75. Buckwheat Flour, per 100 lbs, \$3.50. Bran, per 100 lbs, 62½c. Beef, per 100 lbs, \$4.50 to \$5.75. Mutton, per 100 lbs, \$4 to \$5. Lamb, per 100 lbs, \$4 to \$5. Pork, per 100 lbs, live at factory, \$5.75 to \$7.50, medium weights \$5.50 to \$6. Potatoes, per bushel, 50c. Onions, per bushel, 60c. Apples, per box, \$1 to \$1.25. Butter, per lb, 20c to 22c; do in brick, 18c to 20c. Eggs, per doz, 25c. Lard, per lb, 20c. Hay, per ton, \$10 to \$12. Straw, per ton, \$7 to \$8. Tallow, rough, per lb, 7½c; do refined, 10c. Hides, green, per 100 lbs, \$5.50 to \$5.75; do, dry, \$9 to \$10. Sheepskins, \$1.50 each.—Spectator.

London Markets, Dec. 11.—Very little off ring to-day, and prices generally heavy at quotations. Fall Wheat—superior \$1 to \$1.05; ordinary samples \$1.12 to \$1.20; good to extra \$1.20 to \$1.40; Spring Wheat \$1.05 to \$1.08. Barley—bright malting, 55c. Peas—Sound white 50c. Oats 28c to 30c. Corn 62½c to 70c. Buckwheat 40c to 45c. Flax seed \$1.50 to \$1.75 per 60 lbs. Butter—prime dairy 20c; No. 1 store 16c to 18c; fresh, by the basket, 20c. Dressed hogs \$8.50 to \$7.50 per 100 lbs. Skins—Green hides \$5, calf, dry, 15c; sheepskins, fresh, 87½c to \$1.50. Wool, pulled, per lb, 40c. Tallow at 7c; rendered 10c. Hay, per ton, \$7 to \$10. Straw, per load, \$2.50 to \$3.50. Peas \$2 to \$3 per load. Potatoes, by the load, 30c to 40c. Carrots, by the load, 15c to 16c per bushel. Turnips 10c to 15c per bushel.—Free Press.

LONDON LIVE STOCK MARKET.—The great rush of American cattle dealers is somewhat subsiding in this district, owing to the growing evenness between the Canada and New York markets. On Saturday Durham milch cows were held at from \$30 to \$40, while for cows and heifers of the ordinary species, prices from \$25 to \$27 were asked and obtained.—Free Press.

Galt Markets, Dec. 11.—Flour, per 100 lbs, \$3 to \$3.75. Fall Wheat, per bushel, \$1.30 to \$1.45. Spring Wheat, per bushel, \$1 to \$1.12½. Barley, per bushel, 60c to 65c. Oats, per bushel, 50c to 52c. Flax seed, per bushel, \$1.25 to \$1.40. Butter, per lb, 18c to 20c. Eggs, per dozen, 18c to 20c. Peas, per bushel, 60c to 62½c. Beef, per 100 lbs, \$8. Pork, per 100 lbs, \$7 to \$8. Hides, per 100 lbs, \$5 to \$5.50. Calveskins, over 3 lbs, 8c. Lambskins, 7c to 8c. Potatoes, per bushel, 40c to 45c. Hay, per ton, \$8 to \$10. Apples, per bushel, 37½c to 75c.—Reformer.

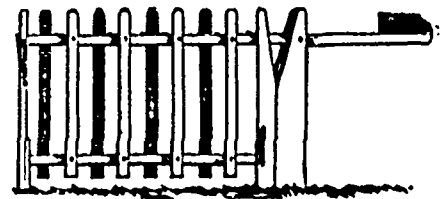
Oswego Markets, Dec. 11.—Flour—Market dull, but unchanged; sales at \$3.50 for brands from No. 1 Spring; \$10 from red winter. \$11 to \$11.25 from white; and \$12 for double extra from prime white wheat. GRAIN—Wheat continues quiet and we have no sales to report. Corn quiet. Barley inactive and nominal. Rye dull, Canada at 95c. MILL FEED—Shorts are quoted at \$10, and shipstulls at \$22 to \$24 per ton. Corn meal—100 lbs. bolted at \$2 to \$2.10; do, unbolted at \$1.90 to \$2; 50 lbs bolted in paper sacks \$1.05; do, 15 cloth da \$1.15. Salt unchanged; fine is quoted at \$2.45 per barrel; and 14 lb sacks at 20c. Waterlime—\$1.60 wholesale, \$1.70 retail per barrel. Master quoted at \$1.30 per barrel.

New York Markets, Dec. 11.—Cotton dull, 45c to 46c for middling. Flour—Receipts, 25,000 bbls; market dull and unsettled and 10c to 20c lower; \$7 to \$7.25 for superfine State; \$7.75 to \$7.95 for extra State; \$8 to \$8.25 for choice do; \$8.95 to \$9.20 for superior Western; \$7.65 to \$8 for common to medium extra Western; and \$8.20 to \$8.60 for common to good shipping brands extra round-hoop Ohio. Canadian flour 10c to 20c lower; sales at \$7.85 to \$8.10 for common; and \$8.15 to \$11 for good to choice extra. Wheat—Receipts, none; market dull and 1c to 2c lower for common grades; good to extra choice amber Milwaukee \$1.75 to \$1.76—an outside price. Rye quiet; State at \$1.11. Corn—Receipts, 11,000 bushels; market dull and heavy; sales at 83c to 92c for unsound; 90c to 91c for sound mixed Western. Oats dull and heavy, at 45c to 60c for unsound; and 57c to 60c for sound. Pork—lower; sales at \$23.50 to \$25.25 for mess, closing at \$28.75 for cash. Petroleum quiet; 41½c to 42c for crude, 67c to 68c for refined in bond, and 55c to 57c for do. free.

LATEST MARKETS.—Flour closed dull and unsettled, and 10c to 20c lower. Wheat closes dull and 1c to 2c lower for common grades. Corn closes dull and about 1c lower. Pork closes unsettled, mess \$23.75 cash. Lard closes firm at 15½c to 20c

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