fact. Already they are making rope, cordage, and twine at their Doon works. We shall watch the progress of the projected pioneer linen factory with the greatest interest, and rejoice in due time to chronicle its completion and success.

A few words now in reference to the raising of flax as a farm crop, and the stages and processes of its preparation for manufacture, may not be uninteresting to our readers. This most useful plant accomodates itself to almost all the climates of the world, and may be grown successfully upon any soil of ordinary productive capacity. After thorough trial of every description of land from light sand to heavy clay, the Messrs. Perine are of opinion that flax does best on a strong loam, somewhat inclined to clay. They recommend about 70 lbs. of seed per acre as the quantity to be used when the plant is raised for both seed and fibre. In this climate the last week in April or the first week in May, may be set down as the proper time for sowing. Seasons vary, however; and nothing is gained by hurrying in the seed before the land is in proper tilth, which is sometimes as late as the second or third week in May. About the middle or end of July, the crop will be ready for pulling, a process usually performed by hand. In Ohio it is a very common practice to cut flax with a mowing machine, but this is objectionable, as it wastes a portion of the fibre, and leaves butt ends which are troublesome to the spinner and manufacturer. A flax-pulling machine which will supersede the necessarily slow hand process is greatly needed. The inventor of such a machine would be sure to make a fortune by his patent. In the meantime, hand-pulling must needs be the prevalent mode of gathering the crop.

The average yield of flax is from one-and-a-half to two tons of green straw per acre,—or about one ton when rotted,—and 12 bushels of seed. Green straw is worth about $6 per ton, at the scutching mill, and rotted straw $10. Flax seed is worth on the average $1 25 per bushel. At present it commands a higher figure, the market price being $1 50 per bushel. The above is, according to the experience of the Messrs. Perine, a safe, and if anything, a low estimate. In one instance, five acres of flax grown in the township of Waterloo, U. C., yielded 725 lbs. of dressed fibre per acre, and 15 bushels of seed, value $19 75 per acre. This was an unusual yield. The crop grew in a rich field, close to the farmer's barn,—the season was every way favorable,—pains were taken to harvest the straw properly, and on the whole, this must be taken as an instance of maximum success. Four to six hundred pounds of dressed flax to the acre is by no means uncommon, and while 12 bushels of seed per acre is perhaps about the average, as high a yield as 24 bushels has been obtained.

In reference to the cost of this crop, and its profitableness, the testimony of the Messrs. Perine is highly satisfactory. They do not consider that more labor is required for a crop of flax than for a crop of winter wheat,—indeed the most of what has been raised under their inspection has not received one-half the attention as to preparation of the land which is usually bestowed upon fall wheat. Doubtless deeper ploughing and more thorough preparation of the soil would materially increase the yield. The cost of harvesting a crop of flax and preparing it for the scutching mill does not exceed $7 per acre, while the preparation of the land costs little if any more than that of any spring crop. The average of the producer's profit, exclusive of harvesting and preparing for scutching, is something more than $30 per acre. All who have grown flax under the auspices of the Messrs. Perine, admit that it is far more remunerative than wheat, while it is perfectly safe to affirm that it is 25 per cent less risky than spring wheat, and 50 per cent less than fall wheat in this country. No instance of a failure in the flax crop has taken place when the seed has been put in at the right time, and the land has been in a proper state of cultivation. What poor crops have been raised, have been more the result of inexperience or neglect on the part of the producer than the fault of the crop itself.

The Messrs. Perine purchase the straw either in its green or its rotted state. They also receive it, and put it through the scutching process for the growers, as flour mills grind small lots of wheat for the family use of the farmer. Those who get flax scutched for their own use, spin and weave it into towelling, linsey woolsey, table-cloths, grain bags, shirting, and other articles of wearing apparel. Most of the straw sold by the farmers at the mills is dew-rotted by themselves. Some of them are beginning to be quite *au fait* at the rotting process, while many are so inexperienced in regard to it, that the straw they offer commands only an inferior price, from the imperfect manner in which it is prepared.

All the mills carried on by the Messrs. Perine are on what may be styled the old principle. The straw is broken between heavy fluted iron rollers, and scutched by means of steel-bladed knives fixed in a cast-iron wheel. The flax is first passed in handfuls between the rollers, then a man exposes the seed end to the action of the scutching knives, a process peculiar to the Messrs. Perine, and by which the seed is separated from the tow. Unless the seed be removed, it makes rough places in the manufactured article, even in cordage. In the next place, the handful passes to the roughers, who partially scutch it, the finishers then take it and complete the process of scutching. By a very simple arrangement of a framed stool and lever, the scutched flax is made up into bales, when it is ready for shipment and sale. Most of the fibre produced at the Messrs. Perine's mills finds its way to the American market, while the seed not required for next year's crop, is sold to Lyman, Clare & Co., of Montreal, who manufacture linseed oil, oil-cake, &c., from it. The works of the Messrs. Perine are simple, and might be regarded by *connoisseurs* as rather primitive in design, yet in the opinion of the proprietors, they are superior to some of the more modern arrrangements. They prefer their own method to the much-eulogised Rowan machine, more particularly for the following reasons. The Rowan machine they think fails in securing evenness of length, and leaves the flax "rat-tailed." It also breaks the ends of the bunches too much, and does not break the middle sufficiently. This arises from the fact that first one end, and then the other is put into the machine, leaving the middle only partially broken. Whether this opinion as to the merits of Rowan's machine be correct or no, certain it is that the Messrs. Perine succeed in turning out an excellent article of marketable flax. Specimens of it were kindly furnished us at our request, and will be on exhibition at the office of the CANADA FARMER, so that any parties who feel an interest in this important subject, may at any time call and inspect them. In conclusion, we have to express our sincere acknowledgements to Mr. J. S. Perine, for the polite and obliging manner in which he set himself to facilitate the object of our visit, and we cordially wish him and his enterprising brothers all the success they so richly deserve.

Rolling Pasture Lands.

The rolling of pasture lands is advisable in all cases where it is judiciously performed. The effect of the roller upon grass lands is beneficial, not merely from the fact that it smooths and consolidates the surface, but it protects the roots from the injurious effects of drought, destroys and prevents the formation of ant-hills, and will often prove destructive to moles, as well as many other enemies to pasture lands. But in order to secure these beneficial results, the greatest caution should be exercised. On this subject Dr. Wilson says:—"Rolling must be judiciously performed under suitable circumstances of the land, else it will bruise the herbage, damage the roots, close the pores of the soil, and, in general, do vastly more harm than good. It ought, if circumstances permit, to be performed about a fortnight before the field begins for the season to be depastured; and it ought never, in any circumstances, to be performed, except when the sward is quite dry, and when the soil, or the seat of the roots is sufficiently yielding to prevent the bruising of the leaves, or the rupture of the roots beneath the pressure of the roller. Sandy and semi-elastic soils, may be rolled at any time when their sward is dry; but clay lands may be rolled advantageously, only when any little lumps or inequalities on their surface crumble with the pressure of the foot and are not flattened and consolidated, but enter softly and wholly into the combination with the surrounding soil. But whenever a sward is in the compact and tenacious condition, which is technically known as hide bound, rolling even under the most favorable circumstances, would injure rather than improve it, and scarifying must be practiced instead, to loosen the surface, to give the roots new facilities for absorbing food and producing herbage, and, if thought desirable, to serve also as a powerful precurrent aid to the beneficial operation of a top-dressing of manure."—*Culturist.*

The Field.

UNDER this head we propose to discuss the various matters pertaining to crops of all sorts. Though the present is not the season for field operations, yet it is an excellent time for forming plans to be carried out when the proper period arrives. Now, when there is comparative leasure, the farmer should study such matters as the laying out of his farm to the best advantage, the adoption of a good rotation of crops, and the establishment of a system of keeping farm accounts. These are points of much importance, and by giving timely attention to them, work will be done more effectively when the rush of spring business comes on. To carry forward the labours of the farm systematically and seasonably, requires no little prior consideration. Our seasons are short and limited, much must be crowded into them, and just as a good packer will put far more into a box than a careless person will do, so will a good planner put far more work *into* the year, and get far more profit *out* of it, than his disorderly, slip-shod neighbour. Then there is immense satisfaction connected with having work under control, so that however busy one may be, he drives his work instead of letting it drive him. A skilful farmer will aim to carry on all his labors with clock-like regularity, and thereby secure efficiency and comfort.

Winter is also a good time to provide choice seed for spring sowing. When this important matter is left to the last moment, in too many cases either the favorable opportunity for sowing is lost, or seed of inferior quality must be put into the ground—both of them evils to be sedulously avoided if possible.

By chopping and hauling a supply of firewood and fence timber, getting implements into thorough repair, providing labor-saving contrivances and conveniences, and in various other ways, the thoughtful, diligent farmer, may make even the dreary season of winter contribute largely to the profits of the year.

Culture of the Grasses.

ONE of the most important operations of the farm is the cultivation of the various grasses for pasture and hay. Grain, grass and roots comprise the means of keeping up, without exhaustion of the soil, or loss of time by fallowing, a judicious and profitable rotation of crops. When land is in proper heart for producing heavy crops of the improved grasses, most other products will grow well upon it. A thorough discussion of this branch of agriculture is a larger task than we propose now to undertake; but as an important topic, to which we shall from time to time have occasion to advert, a few words in our first number seem to be appropriate. The management of meadow and pasture lands is a matter on which too many farmers bestow very little thought and attention, from the general prevalence of the idea that man has but a very small part to play in securing a good forage crop. It is usually regarded as almost wholly a question of wet or dry weather. If the spring be showery, a good growth of pasture and a large yield of hay are expected as matters of course; and if the spring be dry, failure is looked upon as certain. Without now alluding to artificial irrigation as a remedy for drought, further than to say it is in many cases a very practicable expedient, and by no means the Utopian affair many think it, there are several ways in which the uncertainties that beset the grass crop may be lessened. Deep culture,