Selected Articles.

FLAX CULTURE IN CANADA.

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The mode of treating the crop in the best manner is practised about Courtrai, and the neighbouring district, and has hence received the name of the

Courtrai System.

This system is to dry the flax after pulling in the field, and to stack it up till the following spring. when it is considered fit for steeping. To ensure the preservation of the seed, which is required for sowing rather than feeding purposes, the straw is put in stooks, care being taken not to tie it into beets or sheaves, but to leave it in small wind-stacks in the field, These wind-stacks are placed on cradles, to keep them off the ground, and to secure them from vermin and damp; the seed-ends are placed in alternate layers, and the bulk comprises from four to six sheaves in height and from three to four in width, the whole being thatched with straw like a sloping roof. When perfectly dry, the crop of flax is stacked up in the field, or farm-yard, like ordinary grain; and if well gathered it is considered to be improved by three years' keeping, as it will scutch much easier and to more profits.

Rippling.

The Belgians carefully attend to the rippling of the flax, because they consider it handles much easier afterwards, and that the seed is the most valuable part of the crop. For speedy work, three ripples are applied to an acre of pulled flax in a day; they are placed in the middle of the field, on a winnowing cloth, and if a cloth is not at hand, the ground upon which the machine stands is cleaned and beaten until it is as hard as a barn-floor. Six men require two women, two children, and a horse and cart to bring forward the straw, to ripple an acre of flax daily; the ripplers are kept stationary, in order that they should loose no time, but do their work well, which is not always the case, if they are interrupted by moving about. The girls supply the ripplers with the untied flax, and carry off the straw, when rippled, to the female binders, who are placed on each side the ripple, and are capable of tying a bundle of fourteen inches span, which size is best adapted for steeping. The best ripplers invariably sit down, and keep both elbows closer to their sides, to lighten the labour; this position enables them to give the weight of the body, to assist the arms in pulling through the straw.

The bolls rippled off each day are passed through a coarse riddle or fan, then spread open in the field, either on the winnowing cloth, or on that portion of the ground beaten hard. A girl or boy then keeps continually moving, or rather shuffling through the flax-bolls, with bare feet. At night, or in moist weather, the bolls are raked into ridges, and covered with the weeds gathered from the combs, or with straw; in the morning they are spread out again. If the weather be wet, the bolls are taken in-doors; and if dried at a corn-kiln, the temperature is never raised above summer heat, as it is only by slow drying that the seed can imbibe all the juices from the husks, which is necessary for good ripening. The kiln, however, is avoided if possible. When dry the seed is generally thrashed out with common flails, and cleaned through fans; in this condition it is fit for crushing, when the heaviest and plumpest are picked out for sowing. The value of the seed, like that of the fibre, is, however, greatly dependant upon the proper saving of the straw.

The Courtrai flax is produced not merely from the plant grown about Courtrai, but from what is carted to that place from other districts of Belgium, many of them thirty or forty miles distant. The reason of this is, that the river Lys, which rises on the other side of the French frontier, flows by Courtrai, and falls into the Escaut at Ghent, possesses peculiar properties for the fermentation of flax, such as no other river is known to afford. It is found that flax straw steeped in this famous stream yields a fibre of a very superior quality to that which is steeped anywhere else; and as Courtrai is the chief seat of operations, all the flax steeped in the Lys is termed Courtrai flax, wherever may the locality of its growth.

There are several modes of steeping, or what may be termed rotting, the flax. The object is to separate the fibre from the woody and gummy portions of the straw, and this is generally done by cold-water fermentation. Sometimes it is effected by what is called dew-rotting, that is, the straw is left upon the grass; sometimes it is rotted stagnant, and at others in running, water. In Belgium there are persons employed as regular steepers of flax; and when the farmer sells his crop of flax, before it is dressed, to the merchant or manufacturer, these persons dress and prepare it for the market. There are two or three modes of steeping even at Courtrai. One party make an artificial basin on the side of the river, of sufficient size to contain the flax, in which it remains until steeped; proper care being taken to keep it in an upright position with the roots downwards, for which purpose it is placed in a kind of hurdle or basket. In the majority of cases, however, the flax is steeped in the open stream; and those who have chanced to visit the banks of the Lys in the months of Spring and Autumn, must have frequently seen it filled with wooden crates, containing flax straw, and anchored in the stream.

In other cases, a pool or cistern of water is formed in the field, in which the flax is immersed, fixed upright, and the ends of the plants are not allowed to touch the bottom of the cistern; the latter is so arranged that the water can be drawn off and renewed at pleasure, as the flax is considered to have more weight when cleaned in this way than by any other, which necessarily augments its value.

Great skill is required to determine the precise time when the process of rotting is completed, and the flax should be removed from the water, as a few hours frequently makes a difference in its colour. The ordinary time, however, is from eight to ten days, according to the weather; but it clearly depends upon observation and experience—care being taken in all cases that the water has no mineral substance in it, which would in all probability discolour the fibre.

The steeping of the flax has no doubt been suggested by the constituent properties of the plant. If we examine the fibre with a microscape, its