

The hand-brake or bruising apparatus is a machine so common that it will be unnecessary to give a description of it—but a very cheap and expeditious plan may be practiced to free the fibre from the broken pieces of stems by fixing about a dozen wooden blades on a wheel which may be attached to any horse power, a single man with such a machine will clean, after being broken, 300 lbs per day.

CULTIVATION OF HEMP.

The cultivation of hemp and flax is in our opinion one of the most important subjects that has ever been brought under the notice of the Canadian public. If the cultivation of these plants were entered into on an extensive scale, it would be a means of elevating the standing of the Canadian Agriculturist, higher than if any other mode of farming were adopted. The whole of the best lands in Canada East would produce these plants equal to the most celebrated countries for their culture on the continent of Europe, and if influential men in that section of the Province do not take steps to stimulate the *habitans* into something like action on the subject, they deserve to be branded as being neither worthy of the confidence or affections of the people. Portions of almost every District of Western Canada are suited for the growth of these plants, and it is strange indeed that if an intelligent English population are so regardless of their own and their country's welfare as to be indifferent upon a matter of such magnitude, and one which would alone place the colony in a position to make her exports equal to her imports. We would say then to every intelligent man in the Province, form yourselves into a hemp and flax society—advance your dollar, collect and disseminate all the information you possibly can on the subject, show yourselves worthy of being called the sons, either native or adopted, of one of the brightest and most valuable appendages of the most intelligent, wealthy and noble Empires on the face of the habitable globe.

No method can be so efficient as the formation of societies for the introduction of the cultivation of these plants, we are so convinced on this subject that no time shall be lost by us, in organizing a society for the above purpose in the township and village where we reside. Let others adopt the same steps, and if only twenty members can be found who would be willing to pay the annual sum of five shillings each, the business would be commenced the profits of which would soon influence others to become members of such associations, and enter in a spirited manner into the cultivation of these plants.

We are so well convinced of the importance of the subject under discussion, that we shall not give it up until we see the issue of a fair experiment made in its culture.

The soil best suited to hemp is a strong rich loam, such as may be found near rivers;

any alluvial soils are adapted to its culture providing they are not too wet and cold.—In some parts of the country the soil is naturally too fertile for wheat,—soils of this nature are the best quality of lands for hemp.

Opinions differ in regard to its effect upon the soil, but it may be ranked with wheat as an exhauster, with the difference that it gives no return to the soil. It will therefore be seen that the farmer who turns his attention to the production of this plant, as well as flax, that a large portion of his farm will necessarily have to be sown to grass and fed with stock.

The *harvesting of the crop* occurs about the twentieth of August, which will leave the ground as clean as a garden, and in admirable preparation for a crop of wheat with a single ploughing. By being brought into a state of garden culture for hemp and by heavily dunging, alternate crops of wheat and hemp or flax may be grown upon the same ground for a series of years. Instead of pulling we would recommend knives or hooks for that purpose, which may be had for about seven and six pence, sharpening hooks, such as used for reaping wheat, are the most convenient implements for the purpose. A man would cut a half an acre per day with one of these hooks. Cut hemp is worth considerably more per ton than pulled. The steeping and dressing is very similar to that of flax. The produce of an acre of hemp might be fairly estimated at 600 bls. on the description of land recommended above, which would be worth two pounds per cwt. for exportation, and even more than that for home consumption, until the country produce sufficient for its own consumption. The quantity of seed per acre will depend entirely upon the quantity of seed sown. If the plants are thick on the ground a small quantity of seed may be expected, if they are thin, a large quantity; which has been known to equal 40 bushels per acre. The average may be safely calculated at twenty bushels per acre, if the ground be in a high state of cultivation.

PREPARATION OF SEED WHEAT.

Mr. EVANS, the late Editor of the *Cultivator*, very justly remarked in a late number of our magazine, that the farmers in Western Canada were lamentably indifferent as it regards the proper preparation of their wheat for market, and as a proof of that assertion mentions that he never saw a clean pure sample of Western Canadian wheat in the Montreal Market. Without attempting to chide our brother farmers for their neglect on so important a subject we shall endeavour to give them instructions which will enable them to perform their work in a more creditable manner. Before we proceed, it may not be amiss, to mention a case in point, which will go to illustrate the benefit of carefully selecting and preparing seed wheat. When we first entered on the farm, which we alluded to in the last num-

ber of the *Cultivator*, we found some difficulty to obtain pure seed wheat, of a variety, after much trouble we selected seed from three of the best farmers of the District, and sowed each sort carefully by itself,—in the following summer we made choice of the most promising of the three, and pulled out every branch of rye, chess, cockle, and every other noxious weeds and allowed the wheat to be dead ripe before we cut it. It was then thrashed, and cleaned a number of times through a very excellent double shaking-sieve winnowing machine, and then spread on the granary floor, and underwent the following process: The whole of the seed was passed through a hand-sieve, the meshes of which was sufficiently large to allow about one bushel in five to pass through them; and a couple of days before seeding, it was poured into a large tub of brine made of salt and water, sufficiently strong to buoy up an egg; and well stirred to bring up the remaining light seeds to the surface, which was skimmed off so long as they continued to rise, and afterwards drained into a basket, and the brine into another tub. The seed was then spread thinly on the floor of the granary, when it was sifted with quick-lime, at the rate of one gallon to a bushel,—after carefully stirring the lime through the seed a few times it was allowed to remain a few hours and then sowed at the rate of six pecks per acre. The extra time employed in preparing 40 bushels of wheat in the above style did not exceed two days work for a single man. After sowing the whole of the seed thus prepared, it so turned out that a deficiency in quantity occurred, and to save time, as the saying is, we used a number of bushels of what would be called by the generality of farmers, perfectly clean seed, without bestowing any extra labor in the preparation. The result was as we anticipated. That which underwent a perfect cleaning and *purging* gave a return of pure wheat of the best quality, and that which was sown in its natural state, was infected with *smut*, and had also a fair mixture of chess.

If corroborative proof be required to strengthen the case just alluded to, we might give a thousand, many of which actually underwent an investigation of the most experienced and scientific men of the age. The following will probably be sufficient for the present purpose.

It is stated in a Northumberland Report on Agriculture, that a Mr. Culley, who grew annually from 400 to 600 acres of wheat, has had but one instance of smut in a practice of more than 40 years, and this was when the wheat was not steeped. In experiments tried, by another Northumberland farmer on seed, in which were a few balls of smut—one third of which was steeped in chamber-lie and limed; one third steeped in chamber-lie, dried and not limed; and the remainder sown without either steeping or liming; the result was that the seed which was pickled and limed, as well as that