

pulled. When in operation, men follow the puller and return, with forks, the windrows and put them up in stacks as already described.

In large growing centers, windrows are sometimes picked up by a side delivery rake instead of forks. It is obvious however that a greater loss of seeds is sustained.

As regards the drying and storing of bean crops, we must proceed as in the former case.

One of the most important points to observe, when harvesting, is to subtract, as far as possible, beans from the contact of the earth, as well as shelter them against storms, so that their seeds will not be spotted and may have a nice color. Some people recommend, for this purpose, the use of wooden or wire holders (racks) so as to isolate bean stacks from the soil. This process, sometimes advisable in small fields, is too expensive to be economically applied on a large scale.

Thrashing

In order to obtain beans that will not lose in weight and bulk, we must wait, before thrashing, until they have thoroughly dried in their pods. Thrashing may then be made with a flail or a special bean thrasher.

Flail.—Although the flail is recognized as the least bean cracking instrument its use is not a very saving one compared with the time required by thrashers to perform the shelling of an equal quantity of beans. Its use will consequently be advantageous only when the saving of time gained with a thrasher would not compensate the loss of beans that might be occasioned.

Ordinary thrasher.—Some argue that too much beans are cracked with it while others hold for the contrary. Many recommend the removal of a few teeth from the counter-thrasher or give them more distance, and to lower the speed of the cylinder, while others state having thrashed, with a similar machine, large quantities of Pea beans, without any appreciable loss having resulted.

What are we to conclude from these opinion discordances and of the different results obtained, if not that losses will be reduced as the seeds are smaller and that the discrepancies in the percentage of split beans probably depend on the degree of siccidity of beans as well as on the manner of feeding the thrasher.

Bean thrasher.—Fig. 8 represents the section of one of these modern machines used in localities where beans are grown on a large scale. It is formed of two cylinders run at different speeds. The first, situated at the front, shells the driest beans as they come, while the dry pods are carried, by the notches of an inclined plane, to the second cylinder operated at a much higher rate of speed, and which does not fail in separating the beans from the tougher pods.

This is the most satisfactory machine.