

impetus to the flax industry, but after that date the acreage declined considerably. This was mainly due to the low price at which common or medium flaxes were imported from Russia, and the superior quality of those imported from Belgium. Even before the war, therefore, the general situation of the trade with regard to the supply of its raw material was becoming unsatisfactory. Consumption had overtaken production, and manufacturers were faced with scarcity.

The committee soon realized that the problem of increasing the production of flax was not only an agricultural but an industrial one. Given a supply of seed, excellent flax can be grown in many parts of the Empire, and the United Kingdom itself is probably unsurpassed both in soil and climate for the growth of flax. The real difficulty arises from the fact that the harvesting of the crop and its preparation for the spinning mills involve a demand for labour which is difficult to meet under the present system of working in countries such as the United Kingdom, where labour is scarce and dear. No such difficulty arises in the production of seed, either for linseed or for sowing for fibre. Where no attempt is made to recover the fibre, as in Western Canada, the crop can be harvested and threshed by the ordinary machinery used for all cereal crops. It remains to be seen, however, whether it would be profitable to do so in the United Kingdom.

If there is to be any permanent increase of the acreage under flax in the United Kingdom, there will have to be an entire change in the system under which the crop has formerly been grown and handled. Under the system prevailing in Ireland, the farmer not only grows the flax but also puts it through the first manufacturing process, known as "retting." The next process, known as "scutching," is also done in small local scutching mills, generally on account of the farmer. Thus what the grower sells is not simply raw material, but a partly manufactured article, the trade being in this respect almost unique. The objection to this system is that in effect it limits the production and greatly restricts the possibility of improvement in the quality of the product. Where retting is done entirely under natural conditions, i.e., without artificial heating of the water, the process is necessarily limited to that portion of the year during which the natural temperature of the water is sufficiently high to allow of the retting being satisfactorily done. The desired temperature of between sixty and eighty degrees Fahrenheit can only be obtained naturally in Ireland during a very limited period in summer and autumn. This means that the amount of the crop that can be handled is restricted by the amount of labour available to rush the crop through the retting process in that limited period. This again reacts upon the quality of the crop. It is said that owing to the rush of the work, and also to the lack of scientific knowledge and expert skill which cannot be expected of small farmers, the quality of the product is seriously impaired. Again, the small scutching mills which have to be scattered all over the flax-growing districts, are probably far from perfect in their equipment and the skill of their labour, which results in a loss both of quantity and quality in the flax turned out, for bad handling means an undue proportion of tow, which, of course, means a corresponding loss of good flax.

It has now become generally accepted that to meet this difficulty it is necessary to intro-

duce an entirely new method, which has already been instituted in various experimental areas, some of which date back considerably before the war. The new system is that the flax should be bought from the farmer "on foot," as it is called (i.e., as a standing crop in the field), or delivered pulled and dried, and that the whole process of retting and scutching should be undertaken by the purchaser, who, working on a large scale and at centralized points in well-equipped factories, would be able to have the best machinery and appliances of all-kinds for the purpose. At the same time by introducing the process of controlled retting with artificial heating of the water, this system would get rid of the limitation of time imposed by the shortness of the season available for natural retting, so that a longer period would be available for the handling of the year's crop.

Probably the greatest permanent difficulty in securing an adequate production of flax in this country, either in Ireland or Great Britain, is the labour supply for the actual harvesting of the crop. Flax must, if possible, be pulled, not cut, and the difficulty of getting sufficient labour to handle the crop just at the time when other crops are ready for harvesting, has been so great as to require in England and Scotland special arrangements for imported temporary labour. The measures which have been adopted at considerable expense during war time would not be available, even if they were profitable in peace time; and it is greatly desired that some mechanical means of getting over this difficulty should be discovered. Several varieties of pulling machines have so far been produced, but all of them are apparently still more or less in the experimental stage. Complete success in this direction would, however, alter also the whole question with regard to flax growing, especially in Great Britain.

The point to which I wish to draw the attention of the House is that the conditions we find here are almost the same as they encounter in Great Britain and Ireland, and that the difficulties that present themselves over there to-day are the same difficulties that present themselves here. Old, as this industry is, dating back some two thousand years, it would seem as if man had not completely by his ingenuity developed a machine suitable for the pulling of this flax in the field. Now, as early as 1916 I saw a machine in operation; it was the one to which the minister referred last year towards the completion of which the Government were lending some assistance. I saw that machine working, and representatives were also present from the British, United States and other Governments, who were vitally interested in its development. At that time I wrote a letter to the Minister of Agriculture and urged that in my opinion it would be a good policy—seeing that the machine was so near a state of perfection and yet came short of it—that the best mechanical expert that could be secured in the Dominion should be sent to the locality to watch the machine at work in the field; to follow it round for a week or