

have persistently endeavoured to devise methods and machinery whereby linen might be manufactured from Western grown flax straw. The following extract from the report of a committee appointed by the Industrial Bureau of Winnipeg to investigate this and related industries will be of interest and may be regarded as the latest pronouncement upon this important question:

"Your committee left Winnipeg on February 6 and arrived in Duluth the following morning. In this city is located one of the most interesting factories that we visited. It is an experimental plant of the Western Linen Mills, a company formed for the purpose of working out patented processes for producing linen yarns, threads and fabrics from flax straw, but particularly straw grown in the North-West.

"James Brolin, manager of the Western Linen Mills, showed us through the plant, a factory that, with the machinery in use, has cost the men who engaged in this enterprise about \$50,000. Mr. Brolin went into the matters of material, processes and production with us very thoroughly, and gave us every opportunity to see the plant in actual operation. We were thus able to see the flax straw as it was taken from the threshing machine, treated and worked upon wholly by machinery, until it was turned out in finished products of yarn, twine and linen fabric. Stated briefly the processes of the Western Linen Mills comprise mechanical operations which take the place of the slow, tedious work that is done by hand in the flax fields and mills of the old country, and produce yarns, threads, twine and fabrics that are in great demand all over our West and which are now imported heavily from Eastern Canada, Great Britain and the United States. We saw these processes actually worked out and brought back samples of the products which are on file here for inspection. Mr. Brolin also gave us figures which enable us to report that the processes in use by the Western Linen Mills take 70 per cent. from the flax straw in the first operation, 50 per cent. of the remaining product in the second, or degunning process, and a further reduction of 40 per cent. in the third process, finally producing 108 pounds of yarn from a ton of flax straw, and has a market value of 22c per pound, or \$23.76 per each ton of straw that is put through the machines. Besides this, there are by-products of tow and mattress and paper material which are worth \$15 more, or a total of \$39.00 derived from every ton of flax straw treated. The cost of this flax straw laid down at the factory in Duluth is \$12 per ton.

"The bearing of all this upon our own agricultural and industrial life is very important. Bear in mind that the processes of the plant which we saw at Duluth take the flax straw just as it comes from the field—cut by machine, threshed by machine and in all the disorder into which it has been thrown; no pulling nor any costly hand work whatever. Half a million tons of such flax are burned every year on our Western farms. There is a splendid market at our very doors for every sort of the finished product produced. Flax experts accustomed to old country processes have declared that the Western straw from flax raised for seed is not good for spinning and that flax straw cut and threshed by machine is of no value for factory purposes. The new processes we investigated at Duluth prove that our flax straw that is now wasted in such enormous quantity is a good, merchantable product and one capable of being converted into goods for which we have an unlimited market at hand. An interesting point was that the Western Linen Mills processes have been worked out by shrewd capitalists and that no less a man than John D. Rockefeller is a stockholder in this concern, together with several New York men of high standing in the financial world.

Binder Attachments.

"At Minneapolis we called upon the Ware Binder Attachment Company. This company's product is right in line with the utilisation of flax straw because the Ware binder attachment is one that is made for the express purpose of using binder twine made from flax straw. As you are aware that all of the binder twine now used in the West is brought in from the United States and Eastern Canada and a factory in Winnipeg for producing this twine from flax straw, together with a parent plant for manufacturing a binder attachment to make the use of linen twine practicable would be a combination that must give splendid results in industrial growth and the profitable employment of what is now a sheer waste."