A Canadian Flax Industry

Many Conditions are Favorable, according to the writer, but Obstacles are Numerous and Past Attempts Discouraging

By E. B. BIGGAR.

There is, perhaps, no branch of agriculture and no department of manufacturing—certainly none in the field of textiles—which has offered such alluring prospects, but has disclosed so many bog-holes of perplexity and financial loss as that of flax. The Canadian flax industry undoubtedly has great possibilities, but it would be cruel to conceal from those anxious to promote it the truth that it has a number of very obstinate problems.

There is the encouraging fact that flax can be grown in the prairie provinces on the first breaking of sod to better advantage than any other grain; and there is the further fact that in favorable years flax is a very important and profitable crop. Then there is the pitiful feature of it, that thousands of tons of a straw which has high value as a textile fibre is burnt every year in the Canadian West for lack of some system of utilizing the fibre. Thousands of tons of binder twine are used every summer in the prairie provinces alone, and this twine is made from manila and sisal hemp imported all the way from the Phillipine Islands, India, etc., while the straw from which a Canadian twine could be made is burnt up in order to be got out of the way on the many farms that use manila and sisal twine. Then there are the possibilities of the linen industry, in thread, commercial twines, yarns, and linen fabrics.

Both Seed and Fibre Impossible.

The obstacle in the way of developing a general linen industry in the Northwest under present conditions of farming is that flax is raised there primarily for seed to grind into oil-cake or for the making of linseed oil or to export as flax seed. Now, when flax is grown for fibre the seed must be sown very thickly so that the straw will grow as long as possible and without joints; whereas flax grown for the primary purpose of seed is sown thinly, so that each plant may branch out to produce as much seed as possible. It follows from this that the farmer cannot, to good advantage, raise flax for both fibre and seed in the same season.

Suppose the farmers of a certain district decide to grow it for fibre, they will have first to solve the problem of pulling. In the flax regions of Europe this is done by hand, children and women being largely put to the work, for the cheapness of the labor. In our case this can only be accomplished in a thickly settled region where very cheap female labor is available. Can flax pulling be done by machinery? We should not be too skeptical as to what inventors may do to overcome this difficulty, when they have accomplished the impossible in other fields, but we can only state the fact that, of the many machines devised up to the present, none have proved economically successful. Assuming this difficulty to be overcome, the industry in the Canadian west would labor under a handicap for some years, because it can only be carried on by trained labor, and it cannot be successful in isolated units.

In the modern factory system linen mills must be congregated, when the subsidiary processes are in touch with one another. Then also they must be located where there is water of a quality adapted to the retting of the flax straw preparatory to the scutchings and subsequent treatment of the fibre. The retting of flax by the old "natural" method is a slow process. During the past fifty years hundreds of inventions and processes have been put forth as a solution of this problem of chemically hastening the retting period, but the problem remains an obstinate one, for there is no satisfactory demonstration of a method which reduces the time to a few hours or a couple of days which does not also result in weakening the fibre to a degree fatal to the claims of advantage.

Our Present Linen Industry.

While leaving out of account the possibilities of linen fabrics and linen thread, it would seem feasible to make a rough twine good enough for binder twine, but here again it is an aggravating fact that though a number of experimental plants have been started—an official of the International Harvester Co., informed the writer that that company had spent $50,000 or more in working out this problem—flax binder twine has not yet begun to compete with the Asiatic fibres now in common use.

Coming to Eastern Canada we know that the making of coarse linens, such as towels and sheetings, is not yet an extinct industry in Quebec, and here and there in the Maritime Provinces, but it is altogether a household industry, and a diminishing one at that. In Ontario there are two establishments producing flax twine from Ontario grown flax. There was also started at Bracebridge, Ont., a linen mill for which it was intended that Canadian flax should be used in the manufacture of table cloths, napkins, towelings, etc., but being unable to get properly treated fibre the mill was obliged to fall back upon imported yarns and to help it out, the government permitted it to bring in flax yarns and warps free of duty. Almost as fast as trained operatives could be brought out from the North of Ireland they were attracted to other occupations by the offer of better wages, and the local difficulties were at last partly solved by the removal of the mill to Guelph.

The linen industry can only be solidly founded in Ontario—or for that matter in any other part of Canada—by having the industrial department directly connected with the agricultural branch, just as the beet root sugar industry is based on the farming of land for beet roots. Without the guarantee of a sufficient area in beet roots within feasible shipping distance from the mills there can be no successful sugar mill, as a number of Canadian capitalists found to their cost at the time of the beet sugar boom here many years ago.

Past Attempts at Developing Industry.

This is the case with the linen industry and the situation can be best illustrated by recalling some incidents in the history of the American Civil War. As that conflict grew the Southern planters abandoned their cotton fields, and this paralyzed the cotton mills of the Northern States and to a still greater extent the mills of Great Britain. The great struggle brought the cotton operatives of Lancashire to the point of starvation and put a terrible strain upon their sympathies; but the very cause which plunged the cotton manufacturing districts of England into misery and poverty threw a shower of gold upon all Ulster. Cotton goods could not be had and linen fabrics went up to fabulous prices. A fortune could be made in a single year out of a linen mill, and new mills started up in Ireland wherever a mill site and enough flax could be secured. The same conditions prevailed to a lesser extent in the United States, and it was in these circumstances that a proposition was made to George Stephen (whom now we know as Lord Mount Stephen) of George Stephen and Co., wholesale dry goods dealers, of Montreal. Mr. Stephen was a genuine friend and advocate of Canadian linens, especially with the prospects of such large profits. To many in the trade cotton seemed a dead monarch and linen became king. Mr. Elliott and Mr. Sheriff, woolen manufacturers of Almonte, joined Mr. Stephen and with two or three others they formed a company, brought in machinery and started the first Canadian linen mill at Preston, in a building still standing as part of the woolen mills of George Pattinson and Co.

But only a few farmers within reach could be induced to grow the flax, and before the farmers could be organized for the business the Southern armies collapsed, the war ended, and with the rehabilitation of the Southern plantations cotton again became King and the linen industry of Ireland, in its turn, collapsed until the balance of trade was restored. The Canadian linen mill also collapsed, partly following the cotton market conditions, but largely because the mill owners could make no contracts with farmers securing a supply of flax fibre, and George Stephen and his associates abandoned the linen business and sold off their machinery after a loss of several thousand dollars each. Another and still larger mill was started in this period at Streetsville, Ont., by the Gooderhams, of Toronto, and Mr. Perine, of Doon. This industry was doomed to the same untimely end as that of George Stephen, and if the firm of Perine and Co. afterwards re-established the industry and have kept it running to this day, it is because they started at the foundation and made sure of an ample supply of raw material from the hands of the farmers.

From all this we must not draw the conclusion that a successful flax and linen industry is impossible in Canada, but those who go into it must understand that to be a really indigenous industry the agricultural branch must be directly and co-operatively associated with the manufacturing processes from beginning to end.

THE BIGGEST LITTLE DAIRY COUNTRY.

Denmark holds the world's record for intensive farming. After Germany had taken Schleswig-Holstein, Danish experts figured that their development must come from within and they proceeded to develop the arid wastes of Jutland which have now become tremendous producers of agricultural and dairy products. The Danes claim that they have solved most of Europe's intensive farming problems and that much of German efficiency in this direction has been learned from them.

The little kingdom is one of the greatest dairy producers of the world and its butter is exported to every part of the earth. It is found in Mexico, and even in the far off islands of the antipodes as well as in Patagonia. Its reputation in Europe, particularly in England, as unexcelled and vast quantities have been shipped for years to all the countries of Europe.

American business men have always admired the wonderful cow-feeding methods employed by the Danish farmers who tether their cattle in rows in such a way that they can eat but a certain section of grass in a day. The next day they are moved forward in the meadows and it is worked out on such a minute basis that by the time the cows have reached the end of the pasture the grass is again ready for grazing at the beginning. — The Wall Street Journal.

HOW MONEY GROWS.

After publishing his "Poor Richard's Almanac" for twenty-five years and giving thirty-two years more as thrift teacher of this country, Benjamin Franklin put into his will a provision to demonstrate the power of accumulated savings, says a writer in the Chicago News.

To the cities of Boston and Philadelphia he left $5,000 each. The money was to be put out at interest and allowed to accumulate for a hundred years. At the end of that time, he figures, each city ought to have $650,000. He directed that at the end of the hundred years, $500,000 should be invested by each city "in public works which may be of most general utility to the inhabitants." The rest should then be put at interest for another hundred years when the accumulation should be divided, one-quarter to the city and three-quarters to the state.

When the first hundred years were past, Boston found that she had $663,923 to her credit from the Franklin fund. Taking $500,000, Boston established a training school for mechanics. The remaining $163,923 was put out at interest again.

Philadelphia's experience with the original fund of $5,000 was about the same as Boston's.—London Economist.

MUST PROVIDE FULLY FOR THE SOLDIERS.

It is useless to pretend that we cannot afford it. We must afford it. While any non-combatant remains in possession of more than £200 a year there is money to spare for the prevention of preventible hardships to the men who are risking their lives to save our means of life. Those who cannot fight must pay for those who do, and ought to be jolly thankful to get off so lightly. No loss of money can be compared to the risks of loss faced by our soldiers and their dependents. Until our heroes are served, the rest of us count as zeroes. — The Clarion (London.)

NATIONAL DRINK BILL FOR 1915.

In his annual estimate of the National Drink Bill, Mr. G. B. Wilson, Secretary of the United Kingdom Alliance, states that the amount expended on alcoholic liquors during 1915 was £181,959,000, an increase of £17,496,000, or 10½ per cent over 1914. This increase is accounted for in detail as follows:

Expenditure.	£	Consumption.
British spirits	+ 3,838,000	+ 2,437,000 proof galls.
Foreign	+ 1,401,000	+ 899,000 "
Beer	+12,667,000	— 4,781,000 bulk bbls.
Wine	— 410,000	— 460,000 gallons.