

IRRIGATION LESSONS FROM THE OLD WORLD.*

By Sir William Wilcocks.

Living among Arabs for the last thirty years, I hesitated at first to say anything at this meeting, as they greatly respect silence in the East. "O man, God gave thee two feet, two hands, two ears, two eyes and one tongue, know thy destiny." However, I have remembered that I was born sixty years ago in a tent on an irrigation canal in Northern India, and have spent my life in those arid lands where, in ex-President Roosevelt's words, it is water and not land which measures production; and that therefore I might say something to-night on the subject of eastern irrigation.

The spirit of irrigation in the East is the spirit of the homestead. The intense cultivation, the need of many heads and many hands to weed, to care after live stock, to gather in the varied harvests, to manipulate delicately and to trim carefully, justify one in slightly changing the words of the Psalmist and saying that "irrigation and marriage meet together, children and prosperity kiss each other." Children in towns are a source of expense, on irrigation farms they are a source of wealth. In Egypt children four and five years old take out huge buffaloes to pasture and control them by a string tied to the horns and passed round one of the ears. Boys of eight and nine lead out sheep and guide them so that they clean the land of weeds and confirm the truth of that old English saying that "the feet of sheep are shod with gold." Girls and women cut and bring in clover, pick cotton, clear rice fields of weeds, prepare the fuel and look after the house. All are busy from morning to evening, and the larger the number of hands, the cleaner the crop and the more plentiful the yield. In the old world east a man is not considered fit to sit down among respectable people if he has passed a certain age and is unmarried. And although I did not know it then, I know it now, that it was this spirit of irrigation which prompted me in my younger and more romantic days to write down on the first page of my note book those delightful lines of Burns:

"To make a happy fireside clime
For weans and wife,
Is the true pathos and sublime
Of human life."

I know that in the younger West, book learning is considered the royal road to wisdom, even though it is only one child in ten who really benefits while nine are being brought up on indigestible mental food. In the old East, the brilliant children are allowed to learn books, while the others are brought up in intimate knowledge of their parents' professions. On farms where all the laborers are members of the house, there are none of the strikes, and none of the unrest in which the West lives and moves and has its being to-day. I was not surprised, therefore, to find that the home-loving Mormons had the only cozy, comfortable and settled villages I saw in Alberta. Raymond, Macgrath and Cardstone had a settled, sitting-down look about them which reminded me of villages in Egypt and India. I know that Mormonism has few friends in this country, but in all matters we should, I think, remember Shakespeare's sage words:

"There is some soul of goodness in things evil
Would men observingly distil it out."

* Paper read at the Sixth Annual Convention of the Western Canada Irrigation Association, Kelowna, B.C., August 13th to 16th, 1912.

We can even learn something from the Mormons, who are the nearest people here to the irrigators of the old eastern world. Their farmsteads are clustered together and they thus secure in the country some of those privileges which make town life so attractive. A man walks a little farther to work, and the ploughman homeward plods his weary way along a longer track, but then life is more sociable once he gets home. I wonder how many people in towns would drop in of afternoons and see each other if everyone had to walk across a square mile of country or half a square mile to see his or her neighbor. The solitary, homeless-looking houses which lay scattered over the bare veldt looked more like rogue elephants living their unsociable lives than anything I have seen in my life. Where I was straining my eyes for bunches of children, I saw only bunches of horses or bunches of pigs. And yet, you pay ten shillings a day for labor. Bunches of sturdy boys and girls are worth their weight in gold. While you people here are asking for colonists from home, the East produces its own colonists, better suited to the country and infinitely cheaper than imported labor.

A small, well-worked farm with irrigation pays much better than a large farm which cannot be kept in good tilth; and here comes the difficulty in this country with its severe winters. A farmer, however small he may be, could not exist in a farm house which cost less than, say £200 to build. Now, £200 spread over 160 acres is £1.4. per acre, and spread over 40 acres is £5 per acre. It is the cost of the farmsteads which is the serious side of small farms in England and it is still more serious here. Agitators in England abuse both the English landlords and the so-called stupid agriculturists who stand by them, but the agriculturists know that it is not the price of the land, but the cost of the farm buildings which stand in the way of small holdings. Big holdings in irrigated land will be eaten up by their own weeds, and the only way to manage is with small holdings and comparatively expensive farm buildings. In Alberta the Canadian Pacific Railway charges very moderately for its irrigation water, but the price of the land is high for small holdings, and the rate of interest for borrowed money is excessive. Government land banks with very moderate rates of interest as they have them in paternal (falsely called retragrade) countries like Russia, are one of the needs of irrigated Canada. Such money would only be lent to bona fide settlers making themselves at home on their lands, and not to the "caterpillars of the commonwealth," who only buy either to half develop and then sell at a profit and clear out after skimming the cream off the lands by exhaustive crops, or to sit and wait for the unearned increment.

Rotation of crops and, whenever possible, the keeping of live stock, is the life of irrigated lands in the East. Cereal crops are always followed by leguminous crops. The leguminous crops are the mortal enemies of the weeds of the cereal crops and vice versa. Good leguminous crops provide all the nitrogen required, while small quantities of superphosphate insure heavy yields of corn and tend to hurry up the ripening of the crop. Irrigated land in Egypt has been heavily cropped every year, and over large areas twice every year, and is as rich to-day as it was 7,000 years ago. Rotation of crops has secured this, backed up always with as many cows, sheep and poultry as the land can carry. The average holding of a well-to-do family in Egypt is two acres. When there is no work on the farm some members of the family are always working at earthwork or portage somewhere. An entire family of men, women, children and a few donkeys will take a quarter of a mile of earthwork digging somewhere and finish it at some fixed rate and time. Seeing such folk one understands why Abraham's