of worn out and neglected orchards, buckwheat will usually give the best results for the first year or two for this reason. The disadvantage of buckwheat as a cover crop is that it does not live over winter, and when the soil is badly in need of humus requires to be plowed

under in the early fall. If the orchard is on hilly ground there is liable to be severe loss from wasting of the soil when fall plowed. For adding humus to badly worn out soils, however, there is no crop that will do so as quickly as will buckwheat.

An Ontario Fruit Grower's Success

ESTLING at its base and extending far up on the side of the mountain that overlooks the little town of Milton, in Halton county, is one of the many fine fruit farms in Ontario. The story of how its owner, Mr. W. J. Hartley, transformed this farm from as unproductive a piece of land as could be found in the community, to one of the most profitable fruit farms in the province, reads like fiction. But it is better than fiction; it is true.

When Mr. Hartley and his bride of a day moved to Sunnyside Farm twentyeight years ago, the prospect before the young couple was not an encouraging one. The farm was badly run down. Mr. Hartley had no money to improve it; in fact, he was heavily in debt. The part of the farm that he called his own was really owned by his creditors. The rest of it he rented. The soil was a heavy clay. No one thought of it as adapted to fruit. Mr. Hartley himself didn't. Fruit farming was then confined to a few special fruit sections, such as the Niagara Peninsula. Accordingly a start was made in general farming.

For five years Mr. Hartley grew grain, fed steers, burned lime and cut stone, while his wife fed chickens and made butter. They did not get ahead very well, however. Such farming yields only nominal returns under the best of conditions, and they had a run-out farm and the interest on heavy debts with which to contend. At one time they were so nearly going under that had not a sympathetic neighbor loaned them one thousand dollars on personal credit, they would assuredly have given up in despair.

Like many another man, Mr. Hartley traces the idea that finally brought him success to the commonsense of his wife. Mrs. Hartley believed that so far as possible young people in debt should aim to produce on the farm all of the food consumed in the home. And therein the fruit farming idea had its birth. One of the first purchases made that first spring consisted of three red currant bushes, three black currant bushes, three gooseberry bushes, a crab apple tree, several apple trees, and one tree each of pear, peach, and plum. kindly neighbor gave them the privilege of digging a supply of strawberry plants from his garden. Mrs. Hartley agreed

to take on herself all the labor of caring for their fruit and vegetable garden if her husband would plow and make ready the land.

Mrs. Hartley's fruit garden thrived exceedingly. The strawberries did particularly well. Mr. Hartley was quick to see his opportunity. Half an acre was set to strawberries. Fortunately this first venture in fruit growing on a commercial scale was a success. first crop was good, the returns large. It looked like "easy money" to Mr. Hartley, and gradually his interests were transferred from the farm proper to his fruit.

DECIDES FOR FRUIT GROWING

"I had always thought I would like fruit growing," remarked Mr. Hartley, "but I did not know that it could be made a success with our climate and soil. I soon found, however, that we could get berries just as quickly as they get them down on the lake front. In fact, this year we had strawberries and raspberries a week earlier than in the farfamed Niagara district."

A good-sized patch of raspberries was soon added to the strawberry plantation and they were soon yielding returns that justified an increase in their acreage. In the meantime a small apple orchard had been set, and was growing so well that more extensive plantings were made each succeeding spring. Remember,

the Hartleys were still in debt, still having a struggle to make both ends meet; but their struggle was not now a hopeless one. They could see the way out.

A WORTH WHILE IDEA

Probably it was about this time that Mr. Hartley began to consider irrigation. In good years he had good crops, but so had all other fruit growers. If, he thought, I could only get good crops in a short year my returns would be far The Milton Mountain that towers over his farm is noted for its numerous inexhaustible springs. Hartley made an agreement with one of his neighbors whereby he was permitted to dam back some of these springs and make a reservoir. As the reservoir is on higher land than the farm and only a short distance from it, this irrigation scheme did not represent any great outlay, and has proved decidedly profitable from the first.

For the last ten years the Hartleys have had clear sailing. Sunnyside Farm has now extended its bounds until it contains two hundred and thirty acres. Thirty acres of this is in bush; one hundred acres is devoted to general farming, the remaining hundred, which represents most of the value and from which Mr. Hartley derives practically his income, is in fruit.

METHODS FOLLOWED In his orchard setting, Mr. Hartley follows the "filler" system. In practically all of his orchards apple trees of standard varieties are set thirty-two feet apart each way. Alternating with the apples and in the centre of each square are plum, peach, cherry or pear trees. Very few of Mr. Hartley's apple trees are yet bearing. In a good part of the orchard, however, the "fillers" are returning profitable crops.

When Mr. Hartley first started plant-



Thinning Duckess Apples in the Orchard of Mr. Nicholl, Welcome, Ont. This orchard was one of the demonstration orchards in Durham county. Out. Experiments in thinning showed a difference in profit between two trees in favor of thinning of four dollars and twenty cents.