

wheel projects horizontally sidewise, and the operator sighting over it keeps it just in line with the cross-heads set along the ditch. The line over them is parallel with the ditch-bottom, and if the arm is kept in this line, as it may easily be, the grade must be true.

One of these machines has been op

erated in an intermittent way in Essex County for three years. It is to be hoped that others will be tried this year, and that their work will become so well and favorably known that they will come into general use, for the price of ditching in most parts of Ontario would be materially reduced by their adoption.

Dairy Instruction in the Province of Ontario

BY GEORGE A. PUTNAM, DIRECTOR OF DAIRY INSTRUCTION FOR ONTARIO.

WHILE the present system of sending specialists in cheese making and butter - making to all factories and creameries in the Province, throughout the season of manufacture, for the purpose of assisting the makers in producing a more uniform and better quality of cheese and butter, inspecting the factories for sanitary condition, and advising the patrons in the care and handling of the raw material, is a development of recent years, we find that, as far back as 1879, the Dairymen's Association of Western Ontario employed Professor L. B. Arnold, of New York State, to go from factory to factory with a view of assisting the makers in introducing methods of manufacture with a view of improving the quality and establishing a uniformity in the product. Professor J. B. Harris, of Antwerp, New York, was engaged by the Dairymen's Association of Eastern Ontario, to carry on similar work in 1880, 1881 and 1882. In 1883 his field of labor was in

the western portion of the Province, while Messrs. Jas. Whitton and Bissell acted as instructors in Eastern Ontario.

The late Hon. Thos. Ballantyne who did more to advance the dairy industry than any other individual in Ontario in the eighties for a year or two years, at least, bore the expense of sending a specialist in cheese-making to visit a number of factories in Western Ontario, believing that the ultimate success of the industry was largely dependent upon quality and uniformity, which could best be secured by sending an up-to-date man from factory to factory throughout the season of manufacture. At the annual meeting of the Western Association, held February, 1884, the Hon. Mr. Ballantyne stated:—"I know some places where the goods were of the poorest description, and the maker was desirous of having Professor Harris come, and the cheese were much better from the first day of Professor Harris' visit to the factory until the end of the season. If our funds