



trenched in the popular regard. The first decade in the life of the industry, with all its faults and failures, its achievements, and its glorious successes, is gone. What of the second decade that will be opening up in a few weeks? Remarkable strides have been made in the past. Will as great advances be made in the coming years? Creditable and almost incredible history have been made. Will this be true of the year now opening and its successors? We believe the coming decade will witness as great developments and make as big a mark in history as did the first. The advance may not be so spectacular, but it will be as real and more mighty. The flames may not leap so high, but the deep glow and steady heat will be there. Nor may the advance be along the same lines as it has been.

"Efficiency and quantity" was the unspoken motto of the makers and operators of traction outfits during

the first decade, and complex organization. As a result, a higher, broader, and finer type of man is required for president of such a corporation to-day than was required in the early stages of its history.

Such will be the development of our industry of traction farming, and the alert, watchful men will recognize this tendency and be prepared for it. Traction cultivation must advance along the lines of economy in operation and quality of work.

"Money saved is money made," and to reduce operating expenses is much more sensible and popular than to increase prices. Never forget that mechanical power and animal power are competitors and it is up to the man who wants to sell machinery to the farmer and the man who owns an outfit and wants to sell its services to the farmer, to make as low a price as is consistent with profitable business.

What are the chief items of expense in the day's run of an outfit? Fuel is one. Be it coal or gasoline, both are expensive on the western prairies. Yet, right at hand are inexhaustible fuel supplies for

convenient and suitable form of still may be devised in order that each operator of a gas engine may grow his own fuel, just as the thresherman of to-day burns the straw he threshes.

Thus, the cheapening of the fuel supply of both classes of engines only waits upon the skill of the inventor. The changes are bound to come, and that soon. Will they come during 1910?

Next to the fuel item, wages bulk up large. Sometimes they overtop the cost of fuel though, if the cost of hauling is deducted from the wages and charged to the price of the fuel when delivered, as should be done, the fuel will usually be found to repress at more money even than the wages. How may the wage item be reduced and further economy effected? The cash outlay may be greatly reduced by each owner learning to be his own engineer. This should not affect the price quoted for custom work, as the owner should count his own time as part of the cost when he runs the rig, but when the owner is working on his own place a good saving is effected.

By comparing the performance

steam or gas driven, axle grease for tenders, wagons, etc., lubricating oil for 101 bearings, and coal oil for lanterns and headlights. Of each of these there are a variety of grades put up by different firms and the keenest competition will be found to exist in the trade. Every plowman and thresherman who can possibly afford to do so, should prepare a statement of his probable requirements in this matter of oils, greases, etc., for the entire season and submit it for quotations to two or three of the oil companies. If in addition to these he is using gasoline for fuel purposes, this step is fourfold more necessary. All the machine oil and coal oil need not be delivered at the beginning of the season. It may be held for instructions and ordered in 5 or 10 gallon lots as required. A standing order for so many barrels per week may be placed for the gasoline. Any oil company would be pleased to make such an arrangement and much better prices would be secured thereby.

It is by watching these smaller opportunities for economy that the great corporations of to-day make their huge profits fully as much as by securing special privileges and



Discing and Harrowing Sod

Breaking The Hart-Parr Outfit of Dr. M. Beck, Hanley, Sask.

Seeding, Discing and Harrowing

the period from 1900 to 1909. "Economy and quality" is to be the motto of the second decade of the industry, if the signs of the times are read aright and may be trusted.

This is evolution, and this order of progress is written over the face of our history. Glance for a moment at the development of such an organization as the Canadian Pacific Railway. In the early days the prime necessity was mileage, and the emphasis was placed upon the quantity of the work done—grading, tracklaying, etc.—and upon the efficiency—the capacity of getting things done—of the contractors. Later on, when mileage had been secured and competition was cropping up, economy of administration and quality of service, road-bed and equipment became the primary considerations. The building of the road in the early days was more spectacular than is its operation



to-day, but the latter involves and represents much more skill, admin-

istrative ability, and complex organization. As a result, a higher, broader, and finer type of man is required for president of such a corporation to-day than was required in the early stages of its history. Such will be the development of our industry of traction farming, and the alert, watchful men will recognize this tendency and be prepared for it. Traction cultivation must advance along the lines of economy in operation and quality of work. "Money saved is money made," and to reduce operating expenses is much more sensible and popular than to increase prices. Never forget that mechanical power and animal power are competitors and it is up to the man who wants to sell machinery to the farmer and the man who owns an outfit and wants to sell its services to the farmer, to make as low a price as is consistent with profitable business. What are the chief items of expense in the day's run of an outfit? Fuel is one. Be it coal or gasoline, both are expensive on the western prairies. Yet, right at hand are inexhaustible fuel supplies for

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of different outfits and buying the style that requires the least number of men this item of expense may be regulated to some degree. By having plenty of fuel hauled from the railway during the winter and placed in cheap bins where it will be protected from the weather, labor cost may be reduced. The outfit, too, should be placed in first class repair before work starts, so that delays may be avoided. When the acreage plowed or cultivated per day is increased by steady running, the labor cost per acre is reduced. The land to be worked should be cleared of all possible obstructions that the outfit is not calculated to overcome, such as stones, roots, and straw piles.

A complete repair outfit and blacksmith shop should be maintained, that the inevitable breakdowns may be as short as possible and that the plow shares may be kept in proper condition. Another direction in which there is room for economy is in the purchase of oils and grease. A number of different kinds are required for the modern outfit. There is hard oil for the cups, black oil for the gears, special oil for the cylinders, be they

control of prices. Do not let economy run to seed, however, and become short-sighted meanness, and petty niggardliness. At one time some railroads thought to further economize in the use of oil by placing their engineers upon an allowance of so many pints per 100 miles. All oil over this allowance used on a trip was charged to the engineer. The result of such a policy naturally was great damage to the locomotives through excessive friction and wear due to insufficient lubrication. The engineers took no chances in exceeding their allowance and oil was about as valuable as water in Tophet. A fireman on one of these roads was undergoing examination for an engineer's license. "If you were travelling at a fast clip and suddenly saw that a head-on collision was inevitable, what would you do?" was one of the questions asked. Quick as thought came the reply, "Apply the air, grab the oil-can, and jump!"

Such, then, are some of the directions in which we expect to see considerable economies effected in the practice of traction cultivation during 1910 and the succeeding