



GRADING

IT may be true, as a general thing, that the use of the tractor in road operations may be more of a contractor proposition than it is a farmer proposition, but nevertheless, the farmer has a primary and vital interest in the road problem, hence if the tractor can be employed effectively in road building, the farmer must take, at least, a secondary interest in that phase of its usefulness. As a matter of fact the building of the modern road hardly could be prosecuted successfully without the tractor. Both in its common form, well known to the farmer, and under some of its specialized forms, as in the road roller and the like, the tractor is employed very extensively in road construction.

Anyone who ever has seen one of the big graders at work in the days of horse power will remember how many horses had to be hitched to it, what a complicated job the driver had, and what exceedingly hard work even the many horses had to pull the unwieldy machine along. Then, too, there was a decided difference in the quality of work the grader would do, depending upon the kind of soil or dirt it had to encounter. But the impression which must have been left upon the mind, paramount to all others, was that road grading was primarily a matter of power and that horse power hardly was the best means for securing that power. To-day, to see a big tractor take a grader and snake it along, is a revelation in the application of concentrated and competent power. The tractor is the ideal power producer for all kinds of road work, and whether it is one of the machines which is rumbling along behind it, or whether the machine is pulling but a split-log drag, the quality and ease of the work that is being done cannot fail to arouse admiration and respect for the machine, which is doing the pulling.

But really the efficacy of the tractor in road building comes not so much from the power it will develop as it is in the fact that the work of construction can be so generally expedited. To see a tractor hauling a long train of wagons loaded with rock or sand, is to see that which will bring a realization of how much more effective mechanical power can be than that pro-

vided through the use of horses. The obvious saving in expense is another consideration of importance. One man with a train of wagons, will do as much work and do it as quickly as will a half-dozen teams, each requiring a man to direct and drive. Road making is an expensive operation at the best, and every saving which may be effected is so much to the good of the community. It is the economy and the efficiency of the tractor which has made it so popular in road making, and which will give it an extensive employment there.

During the years to come there is to be an enormous extension of road building in this country. It is becoming a prime necessity. It means very much for the farmer. Leaving out of consideration the ownership of the automobile as a potent cause for enlisting the interest of the farmer in road building, he should be sufficiently attracted to the matter by the difference between the cost of hauling his product over poor roads and over good roads. Upon the basis of the figures, government investigation vouches for as the annual hauling cost to the farmers of the nation, this difference would amount to hundreds of millions annually. This saving would actually build many miles of road. And, under modern practice, this prospective road building will be very largely a tractor proposition.

Another thing which should appeal to the farmer is that the time is coming very speedily when the tractor or the motor truck will be used very extensively in hauling farm produce to market. This will be economically possible only where there are good roads, yet such road use for the tractor is going to be a necessity in order that the machine may be an economic possibility for a good many farmers. It may take some time to establish this idea in the minds of the farmers, but it is bound to come, and when it does, the tractor will take on a degree of importance to the individual farmer which it hardly has as yet attained. Up to the present the farmer's eyes have been turned to the tractor in the field, and he hardly has considered it as a road proposition. The latter aspect is sure to come, however, and then the subject of good roads will loom larger than it ever has in the past.



LEVELING

DRAWING
THRESHER

DRAGGING



DITCHING

