

may be an immediate purpose. There is, however, the assurance that the manufacturers of the world are keenly watching the requirements of the farm, and are alert to the adaptation of the machine to meet those needs, and this with the utmost economy and reliable efficiency.

The farmer who is fortunate to own or who can obtain the services of a power outfit to plough or cultivate when occasion demands has an advantage over those who are not so provided. He can work the soil to whatever depth its nature permits. He can quickly overtake work. It is probable this last consideration is of the greater importance. This particularly applies where rain in certain places suspends operations for weeks. This naturally causes a pressure of work to be overcome in a curtailed season. It is an incalculable advantage to have the implements and the power at hand to utilize to the uttermost every opportunity afforded by the weather. This is so far as assisting or relieving. There is the factor of deep cultivation—deep stirring, not deep ploughing—to consider. This is usually accepted as desirable, but set aside as costly and practically impossible to accomplish with horse-power. It is actually both costly and difficult. It came to the writer to subsoil for orchard planting 250 acres to about 16 in. in depth. There were good teams and careful men, but half an acre per day with four horses about represented the average of the day's work. The work of cultivating a few acres to this depth is not a serious undertaking. It is when the acres are many that the labour is appreciated, and this is the task of power from steam or petrol. A particular instance of the value of deep tillage has been afforded recently in Great Britain. Some 3,000 acres of sugar-beet have been grown in the eastern counties. These are spread over a wide area. The crops vary in size from a few acres up to 100 acres. The cultivation is as varied as the acreages of the fields. Some are horse ploughed and cultivated, others deeply stirred with steam-power implements. It is claimed that the crops on the former were disappointing, while on the latter, power-tilled, they were both superior and heavier in yield. Such differences are mentioned as 5 tons and 17 tons, as the preparation of the soil was shallow or deep. The sugar-beet is no doubt a plant that requires a deep, well-prepared soil, and there are other crops that appreciate and respond to deep tillage. This can be provided by the agrimotor. In this it is not to be understood that deep tillage is recommended on all soils and in all conditions. It is, indeed, not so. Deep tillage can be profitable only on fertile and well-drained soils. These respond, while similar cultivation on poor wet soil is simply the dissipation of both energy and money.

The present oil-tractors for the farm may be separated into two groups. Those of large dimensions and of high power are suitable for