

Automobiles, Farm Machinery and Farm Motors.

War Preparation.

When the terrible struggle in Europe started a great many failed to realize that those at home had as much real war work as those actually overseas. The man who is fighting in the trench, often hand-to-hand with the Hun, is, of course, carrying the greatest responsibility; but the man at home must so study and labor that he can release the highest percentage of man-power and material to aid the Allies in doing their work. He is thus not only going to render a service to Canada but is going to increase his own personal efficiency, and in every way will find himself better equipped, physically and mentally to carry on his life work.

Prior to the summer of 1914 automobile manufacturers and garages found no trouble at all procuring all the labor required, but the demands of the mechanical forces at the front are rendering it increasingly difficult to secure skilled help at home. This has resulted in what is known as the dilution of skilled labor, in other words it has become necessary to make the experts in all automobile business confine themselves to the direction of the work of others less competent in order that the largest possible out-put may be obtained.

You can help to release men of mechanical genius by taking upon yourself all the little jobs in connection with your car that you have been accustomed to pay the garage for. There is no reason why farmers should find it necessary to come to garages except in very few instances. If you can make up your mind to master the details of your automobile you will find that the knowledge attained in this effort will not only save you a great deal of money, but will also fit you to take care of all the other machinery in use upon the farm. It is safe to say that if the agriculturist of Canada would only help to perform the minor operations in the maintenance of automobiles that at least 25 per cent. of the men in the Canadian garages could be released for other work.

Should our appeal interest you, it will become necessary to provide some place on the farm where real mechanical work can be successfully carried on. You will first require a bench, so located that there is plenty of light thrown all over it, and a foundation strong enough to prevent vibration. There are no fixed rules for the building of a bench, for what would be comfortable for one would not suit another. The bench must be a little lower than the elbows of those who are going to use it, and there should be sufficient width to accommodate the largest part of your motor car. The length of the bench depends entirely upon the size of the jobs you anticipate carrying out. Do not use soft wood because it is liable to shrink. The legs should be well braced in order that any tugging or pulling can be safely done. You should see that the bench is absolutely level. Close to the windows at the side or in front it is well to have all your tools hanging up in clear view in order that the greatest amount of time may be saved in their selection and use. It is folly to keep them in a box or bag because they soon become damaged or lost. If you have a definite place they are certain to always be in order. The most important instrument at your work-bench will be the vise. See that you get a good one. The jaws should close uniformly and be about 3 or 3½ inches wide.

We have now told you how to make a start in assuming the mechanical responsibility of your car. When you

bought the machine you were supplied with elaborate instruction books. When any difficulty comes up go to work without delay at your bench, always remembering that every time you are successful you will save the time of the workmen at your nearest garage and thus add to the available mechanical resources for the fighting front. Furthermore you are being economical with your money which should be a matter of prime importance.

Auto.

Prefers Horse Power to Tractor.

EDITOR "THE FARMER'S ADVOCATE":

After reading the article on "War-time Importance of the Tractor on the Farm," it set me wondering if the writer were a farmer or a tractor agent. If he were a farmer and used a tractor, I venture to say he didn't farm in the general way, in this part of the Province. And, as regards an increase in food production, I fear the more tractors that were put into use the less, instead of more, would be the production, to say nothing of the financial burden it would place upon the farmer. If tractors are an essential for agriculture, why are they not proving their worth in the Western Provinces, where conditions are a hundred per cent. more favorable than here and where the main object is to sow the crop and take it off and haul it to elevators? It is true that there are quite a number of tractors in the West, but are they giving absolute satisfaction? If they are, how is it that so many horses are being shipped there for agricultural purposes? Is it because they cannot build tractors to supply the demand, or is it because the horse is a more reliable and satisfactory source of power than the tractor? I have had no experience with tractors, so I will leave that question to answer itself.

As it has been proven in the West, by giving the tractor a fair trial, that horses are indispensable to quite an extent at least, how can the farmer in the Eastern Provinces afford to spend \$2,000 on a tractor—this being just the purchase price—and buy gasoline at the prevailing prices when he has to keep one team of horses at least on every one hundred acres? Your correspondent says there are not enough horses to meet the power requirements. I would like to say that there are more horses in this part of the Dominion than there is work on the farms for them to do, as motor-trucks and auto deliveries have almost entirely taken the place of the horse in the towns and cities and the farmer has horses for which there is no market, and if he buys a tractor and figures on disposing of his surplus horses, what is he going to do with them? It would be a shame to turn them out to starve, or try to fatten them, as their meat is not desirable for human consumption.

The fact that the farmer can run the tractor day and night has been emphasized; he could, if he could get a man just in the rush season, but then the only time that would be any advantage would be in seeding time and plowing in the fall, for one cannot draw hay in at night, neither can grain be cut or hauled in when the dew is on. The farmer could put in a very large crop with his tractor, and he could also do a lot of plowing, but the average farmer is wise enough to sow only as much as he can profitably harvest. This also is one reason he does not require such a great acreage plowed. Besides, he would have to make a great many changes in his implements in order to attach them to his tractor, and if he wanted to hitch his team to

them he would only have them to change back again and this would entail a great deal of time that he had gained by the use of his tractor. If a break occurs with the tractor, which necessitates the sending away to the manufacturer for repairs, there is nothing to depend upon but the remaining horses to keep the ball rolling, regardless of how much work there is to do or how long it takes to make the repair, to say nothing about what a break in his machine might cost him. The tractor, like all other machines, is bound to have breaks sooner or later, and inexperienced operators do not make these occurrences any less.

On the other hand, we have the farmer who does not depend on motor power. He has horses to do his necessary work, he knows what they will do and he is taking no chances on any experiment. On most farms it requires one good team of horses for the heaviest of the work, and a certain amount of teaming which is necessary with farm work, and most people desire a driving horse or a general-purpose horse to do the driving. All that is needed now is another horse to make up two teams. This fourth horse might be a brood mare or a colt; either would do to make up the second team for the seeding or fall plowing for a farm of 100 to 150 acres, and farms under 100 acres do not require the second team unless there is an extra amount of the farm in crop. At this rate of figuring the tractor only reduces the number of horses required on the large farm and does not reduce on the smaller one. It might be true that a tractor would do more with just one man to operate it, but would it pay the farmer to make such a heavy investment which would make so little difference? I do not see how it would pay for any more than the gasoline it burned, let alone pay for itself, and, in regard to an increase in production, if the difference would ever be noticed at all it would not be a very large increase to say the most. As far as seeding and fall plowing are concerned, it is not that which is hampering production, as a boy can drive a team, or even a girl can handle a team that is not too spirited, and the farmer can get the crop in all right. The difficulty is to harvest the crops which take so much hard labor. And as far as belt power is concerned, threshing is done by large outfits which give best results, and grinding is a thing the farmer is not in the habit of doing himself. Anything lighter may be done by a small gasoline engine, which costs about one-tenth as much money and will give as satisfactory results.

After taking everything into consideration, and at a time when agricultural products are so badly needed it would be absolutely foolish to advocate the use of a tractor on every farm when they have not been in use in the past and the average farmer is not the least bit acquainted with their general results. It would mean a great change in the present method of farming.

Middlesex Co., Ontario.

A READER.

Engine Knocks.

I have an eight horse-power engine, kerosene burner, which runs smooth on gas, but knocks on oil. What is the cause?

E. R. W.

Ans.—Your engine is running too cold or else the kerosene and air are not sufficiently heated before entering the engine. See article in "The Farmer's Advocate" of April 4th issue on "Adapting Gasoline Engines to Burn Kerosene."

W. H. D.

Canada's Young Farmers and Future Leaders.

Chronic Kickers.

Some folks are never satisfied; the weather doesn't suit, it is either too cold or too hot, too wet or too dry. The crops are not what they should be, or else they are so heavy that it is feared they will be hard on the land. The boys stay out too late at night, or they go to bed so early that they are dubbed "sleepy-heads." The sermons are too orthodox or the preacher has too many new-fangled ideas about religion. The teacher overworks the pupils, or else wastes their time with things which have no relation to the farm or life. Such a person is termed a "grouch", or a "chronic kicker", and is certainly not pleasant to meet or associate with. It is fortunate there are but comparatively few such people in the world. It is the booster who keeps things looking up and makes social, economic and religious matters run smoothly. He has the faculty of saying the right thing at the right time, and of advancing constructive instead of destructive ideas. His very expression is full of optimism. It seems to come natural to some people to look on the bright side of things, but with the most of us it requires training. If we only thought so, it is just as easy to look and be pleasant as it is to wear a long face and "grouch". These two characteristics grow on a person, and one should be careful in youth to get the right viewpoint. The fellow who is always finding fault sometimes does so unconsciously. By looking on the dark side for so long it has become a habit, and habit once formed cannot be easily broken. One must frequently check himself up when he feels things going a little wrong, and remember that "the man worth while is the man with a smile when everything goes dead wrong." Looking on the bright side may become a habit the same as looking on the dark side,

and it is certainly much the better habit to form. It will not only have a good effect on oneself but will tend to brighten everyone we meet. One cannot start too young to cultivate the habit of being pleasant and looking for the bright side of everything. It may not be easy at times to do this, but it should be remembered that "every cloud has a silver lining." When thoroughly discouraged, and everything is going wrong, try to think of how much worse it might have been and possibly you will find that you have many blessings. The chronic kicker does not become such in a day, nor in a month, but his unpleasant disposition is the result of having the wrong viewpoint of life over a number of years. If inclined to look on the dark side, check yourself before it becomes a habit.

Pure-bred Stock.

There is something about pure-bred stock which induces a person to take a little more interest in the chores than if animals of nondescript breeding are kept. It is regrettable that more registered animals are not found on our farms. Some will say that it costs too much to get a start, or that they can make as much money out of the grades. Both of these suppositions may be true in some cases. We have seen stables filled with grades that were of more uniform conformation and of better type than some pure-bred herds. They are the exception, however, and were the result of grading up by the use of pure-bred sires. The registered animal does not require any more feed to bring it to maturity than does a grade, but the price which it will bring is much greater, as will be seen by following the auction sales. True, there are pure-bred animals which are scrubs so far as type and conformation are concerned,

showing that individuality of the animal must be taken into consideration as well as the breeding. There is a demand for good breeding stock and the prospects are that it will continue for some time. It is not necessary nor is it advisable, to purchase a whole herd of pure-breds. It is preferable to buy one or two choice females of fancy breeding and *grow* into the pure-bred stock business rather than *go* into it. With a young man starting for himself, we believe this to be a good policy for him to follow, and in ten or twelve years he will have a fair sized herd at but small expense. It is surprising how fast the herd multiplies. There is one mistake, however, and that is of securing a pure-bred animal without paying sufficient attention to its breeding and type. A person would be farther ahead in the end, by a good bit, to pay \$400 or \$500 or even more for a good female, than to pay half this price and get but a common one in both breeding and individuality. There are herds in this country where practically every animal traces to one or two foundation cows. Thus, in starting a herd one should be very careful about the quality of the animals secured.

Outside of the mercenary end of the business, there is a lot more satisfaction in working with animals which you know you need not be ashamed of in the showing than with those whose ancestors are not renowned, and whose progeny are not a credit to the farm. It does cost a good deal of money to secure animals which are bred in the purple, but in the end it usually pays. Aim at having all the stock on the place registered. It may take several years to accomplish this, but unless a person aims high or has a goal to reach, he does not succeed. When laying the foundation for a herd or flock, it will pay to secure the very best individuals which may be bought.