

squaring and placing the strain often on less than half of the width of the gear face. In some engines it is possible to remedy this to a great extent by turning the axle over, and it may even be profitable to renew the hubs if badly worn. Counter shaft and intermediate gearing bearings should be babitted if necessary, and adjusted to take out the play. Where chain drive is used renew sprockets and chains if badly worn, adjust chain to proper tension by idler or eccentric bearing.

If speed chain gears run in oil bath, or grease, the transmission case should be drained and thoroughly cleaned out with kerosene, and adjustments made wherever needed. The oil or grease should not be used again as it will contain particles or even chips of metal.

All loose bolts and braces on the frame should be tightened. Broken spokes welded and replaced in the wheels.

Examine the clutch mechanism, if

shoes are worn down they should be renewed. Before putting the new ones on it is well to soak them in oil, this hardens the wood, rendering it less liable to burn, besides making a smoother working clutch. If it is a contracting band or a cone clutch see that the rivets holding the lining in place are not wearing into the drum. Adjust the clutch to work freely, yet tight enough to pull a load to the capacity of the engine without slipping.

The Ignition System

When the engine has been assembled again the ignition system should be gone over. The ignition has very properly been called the heart of the engine. Many engines are bothered with heart trouble to an alarming degree. Any part of an ignitor that shows wear, springs that are weak, or points which are burnt down, should be replaced with new ones. If insula-

tion is faulty the only remedy is to renew it.

If a jump-spark system is used, platinum points on vibrator coil, or breaker points in magneto, as the case may be, should be filed square if pitted. Do not file away any more than is absolutely necessary. Platinum is more costly than gold. Clean the collector ring and distributor with a rag soaked in gasoline. See that brushes make good contact. Place wiring so that oil cannot drip on it and ruin the insulation. Wires that are bare in places, or too short to reach easily should be renewed.

Before trying to start the engine, grease and oil all the bearings. Fill the lubricating pump and force oil through it until each bearing is getting oil. Be particular about the connecting rod bearings, they are very apt to cut before the oil can get into the bearing surfaces, unless it is got in before engine starts.

Give the motor a final examination to see that everything is adjusted and properly timed. Open the oil feeds to deliver a little more oil than usual.

An engine sometimes is difficult to start after it has been overhauled, especially if many new rings have been put into an old engine, resulting in poor compression until the rings wear to the cylinder shape. After the engine is running this condition gradually improves. However, if it cannot be started, it should be belted to and driven by a small engine, at a moderate rate of speed until the rings work in.

Putting the Tractor to Work

After the engine is started it is advisable to run it idle for some time, watching the bearings to see if they heat. During the first few days the tractor should be worked on a light load, giving every part particular attention. If no heating occurs the oil can be reduced to the usual amount.

It is not expected that all the work outlined here will be necessary on any one tractor, or that all the necessary operations for every type of tractor have been fully dealt with, nor that the order need be followed in proceeding with the work. That it pays to put the tractor in good order will be amply proved by the results, to say nothing of the satisfaction derived from knowing that every part is in proper working condition. A tractor that has been thoroughly and carefully repaired in a workmanlike manner will give service equal to a new machine.

The amount of satisfaction that you will continue to get from your tractor depends largely on the care and attention which you give it. The highest honor that can be conferred on you in the engine world is to be known as a "good engineer."

THEODORE ROOSEVELT ON PRODUCTION

This country needs more food. Its allies need more food. Only the farmer can give the food. It is nonsense to expect him to produce it unless he can make his livelihood by so doing. The farmer is thoroughly patriotic, he stands ready now as he has stood ready in every crisis of the nation, pledged to do his full duty, and a little more than his duty. But he makes his livelihood by producing what is essential to the livelihood of the rest of us. He cannot produce unless he makes his livelihood. Not a step should be taken that interferes with his welfare, save after such wise and cautious inquiry as to make us certain that the step is necessary.

We should do whatever is necessary to help the farmer produce the maximum of food at this time. Moreover, every step we take should be conditioned upon securing the farmer's permanent well being. The city man is often utterly ignorant of the work and of the needs of the man who lives in the open country. The working man and the business man who growl about one another are a little apt to join in growling about the farmer.

The farmer must have labor. But there must be no importation of Chinese or any other cheap labor, whether permanent or temporary. The emergency need of farm labor for planting and harvesting can be met at this time just as the need for the national army was met. The farmer must have first-class prices for his products. No price fixing at his expense must be gone into without the clearest necessity being shown, and above all there must be no repetition of the folly that marked the dealing with the fuel situation last summer. The farmer must have what capital he needs at a rate of interest not excessive in order to plant and reap his crops this year. The aid can be given to groups of farmers who underwrite one another so to speak, and, of course, if he can be given it by private means, so much the better. If that is impossible, then the government should act.

This is the immediate need, and let us treat meeting this need as the opening wedge of a policy designed to prevent the growth of the tenant farms at the expense of the farm owner who tills his own soil, and designed also to put a premium upon the permanent prosperity of the small farmer as compared with the big land owner.—Copyright, Kansas City Star.



Military Service Act

Important Announcement to All

EXEMPTED MEN

and to the Public Generally

IN dealing with the very large number of claims for exemption brought forward for consideration in connection with Class 1 under the Military Service Act, it has occurred, as was inevitable, that as a result of false statements and difficulties put in the way of investigation, some individuals have secured exemption whose proper place is in the Army.

It is not the intention of the Government to allow these men to evade permanently their obligation to bear their part in the military defence of the Country and of the ideals for which we are fighting. To do so would defeat the purpose of the Act, and cause grave injustice to men in the second class necessarily called out to fill their places.

Exemptions Granted on False Grounds

It is, therefore, proposed to scrutinize carefully all exemptions granted to date in order to separate those which have been granted on false or insufficient grounds from those that are well founded.

With this object in view the various Registrars under the Military Service Act have been instructed to issue a series of questionnaires to exempted men. These questionnaires must be filled up correctly and returned promptly under penalty of forfeiture of exemption for failure to do so.

Exempted Men Who Have Changed Address

It is therefore important in their own interest that all exempted men who have changed their address since their exemption was granted and who have not already notified the Registrar of such change should notify him at once. Under the Regulations it is the duty of exempted men to keep the Registrar advised of any change of address, and failure to receive the questionnaire by reason of neglect of this duty must be treated as equivalent to failure to return the questionnaire after receipt.

Citizens Urged to Assist

In many instances information has been furnished by members of the public which has led to the cancellation of exemptions obtained by false or misleading statements. Further co-operation of this character is invited. The Government regard it as the Duty of all loyal citizens, not only to the Country, but to the men at the front, to assist in this way in securing reinforcements on a just and legal basis. Correspondence of this character will be treated as strictly confidential and will receive the fullest investigation.

CHARLES J. DOHERTY,

Minister of Justice.

Correspondence should be directed to Registrars under the Military Service Act—
Geo. A. Toole, Esq., Registrar under the Military Service Act, Winnipeg, Man.
A. L. Haining, Esq., Registrar under the Military Service Act, Regina, Sask.
J. M. Carson, Esq., Registrar under the Military Service Act, Calgary Alta.