

to be recommended for certain regions. In the northern plains country Russian olive, silver-berry, buffalo-berry, and snowberry are useful supplements to native species of the fruit-bearers listed above. In the north-western coast region the numerous wild species of currants are of value as well as some of the manzanitas; here also and across the Northern States in general, mountain-ashes provide much good bird food. In Southern California the introduced pepper-tree, the manzanitas again, the madrone, and California holly are favorites with birds. From Arizona to Western Texas such fruits as the knockaway (*Ehretia*) and ironwoods (*Condalia* and *Forestiera*) are available. From Texas east through what is popularly spoken of as The South, the china-tree, pepper-vine, Mexican mulberry and inkberry produce valuable bird foods. For sandy land along the coasts bayberry, sea buckthorn, sand cherries and the beach plum are especially adapted. For covering rocks nothing excels Virginia Creeper, but wild grapes can well be mixed in such a planting. Some of the best bird feeding plants are small trees like juneberry, mulberry, flowering apples and wild cherries, and usually these can be placed wherever there is room for shrubbery. A few herbaceous plants like pokeweed and Mexican mulberry also have a value equal to that of many shrubs.

In conclusion we would again urge that when shrubs are to be planted let them be of fruit-bearing kinds that will benefit the birds. They are quite as ornamental as the others, and the birds they attract are not only pleasing to the ear and eye, but are beneficial as destroyers of the insect and other foes of the links.

"Service." Who Is Responsible?

By J. S. CLAPPER

The word "service" has been handled in a very careless manner, both by the manufacturer and selling agent, and abused equally as badly by most of the owners of every kind of equipment, so that it is really a fifty-fifty proposition when the whole thing is boiled down. The question of service, of course, necessarily starts with the manufacturer, but it should follow right down the line, including the ultimate purchaser of his product. The manufacturer can not always control the methods employed by salesmen and the different agencies who indulge in extravagant and unwarranted statements to influence the purchaser, but there is no excuse on the part of any manufacturer for failure to place directly in the purchaser's hands a clean-cut and conservative statement of his product and the service he may expect with the proper care and usage, and this should be supported by a warranty which means good design, good materials, and good workmanship to insure efficient performance. The purchaser should be furnished with full detailed information of the product, with complete instructions as to its operation and its care, and suggestions for the operator's guarding against possible trouble and unnecessary expense.

I have maintained that every manufacturer of a complicated product should have a greater interest in his product after it reaches the user's hands than before the sale was consummated, and he should assume his share of the responsibility in having his product perform efficient and dependable work. The manufacturer who acknowledges and accepts such

responsibility is pretty sure to follow up the sale of his product and see if the purchaser is ready and willing to assume his share of the responsibility which at this stage becomes equally as important and should be shared by the purchaser.

There is no denying the fact that manufacturers have been greatly imposed upon by careless and indifferent owners of their product, and especially when in the hands of incompetent and careless operators who, through negligence, allow the equipment to go to pieces and persuade the owner to believe that the product was inferior to start with. It is discouraging to the manufacturer of a good, honest product to note the indifferent and careless usage and abuse of his, or any other manufacturer's, product; and this is especially true with so many of the best golf clubs in the country, as very few of the clubs are properly equipped to service their full line of equipment or have a first-class mechanic to assume the responsibility of keeping every piece of machinery in good working condition.

I have seen the very cheapest and poorest quality of lubricating oil furnished the operator of power equipment. Every manufacturer of power equipment has determined by long experiments and at heavy expense the proper lubricant for his machinery; and no one can go very far wrong by following his recommendation. The best is the cheapest.

It should be the policy of every manufacturer to place all information possible in the hands of the purchaser of his product and to keep a card index of the operators of the machines so that he can send them bulletins from time to time, offering suggestions that will be helpful; but it is surprising how hard it is to get the operator's name. Every club using a machine should be requested to give the manufacturer the name and address of their operator so that the manufacturer can keep in touch with him and do his part to see that the machine will perform efficient service. In certain cases where such request has been made it is known, however, that not 25 per cent of the clubs have given consideration to this important request and sent in the name. I wish that all of the clubs could fully appreciate what this class of service means to them, and I am sure that all of the manufacturers are more than anxious to cooperate in every possible way to see that their product is performing satisfactory work; but the user must realize and show his willingness to assume his share of the responsibility. I am afraid that many of the clubs have adopted the policy practiced by most of the farmers: When the season is over the equipment is usually piled up in some out-of-the-way shed and left covered with dust and grease, subject to rust and untold damage. Every piece of equipment should first be cleaned, painted, and well protected against rust by a heavy coat of grease or oil, or, better still, gone over carefully and put in first-class condition during the winter months; and when this precaution is taken and the necessary attention given to every piece of equipment now in use on the golf course, it will be surprising what a great saving there will be and how much more efficient and satisfactory service the equipment will render the user.

May I offer the following suggestions to operators for preparing their tractors in particular for winter storage?

The machine should first be thoroughly washed and cleaned of all grease and dirt.

Remove the lower part of the motor crankcase and clean out all sediment and flush the pan with gasoline.

Examine all bearings thoroughly and see if any need replacing or adjusting; if so, *attend to it right then and there.*

Remove the cylinder head, being careful not to damage the copper gasket. Clean out all carbon. Examine the pistons, piston pins, and rings, making such replacements as necessary. Examine valves and valve seats and, if pitted, re-grind them before replacing the cylinder head.

Drain all of the old oil from the crankcase and other gear housings and flush out with kerosene to clean out all sediment. Then refill with fresh oil and grease.

Refill the motor crankcase with clean, fresh oil; start the motor and run the machine until you are sure all of the gears, bearings, and parts are covered with the new oil.

Pour one pint of oil on top of the warm water in the radiator; then drain so that the inside of the radiator and water jacket in the motor will be coated with oil.

Pour one-half pint of motor oil on top of each piston. Then crank the motor over by hand until the pistons and cylinder walls are covered with oil.

Remove the magneto breaker box and fill with vaseline; then replace. This prevents rust and corroding of breaker points.

Your machine will then not only be in good shape for winter storage, but, with a little cleaning when spring comes, ready for another season's work.

Your interest in having the machine perform continuous service is no greater than the manufacturer's. They are ready to serve you on notice. Do not trust your machine in the hands of the average garage mechanic. First tell the manufacturer your troubles.

While doing this work, it will be well to give the same human consideration also to your cutting units, putting-green mowers, and all other equipment.

Handling Plugs: A Discussion

W. J. ROCKEFELLER AND LYMAN CARRIER

(*Mr. Rockefeller opens the discussion with the following contribution.—*
EDITORS.)

At Inverness, where we have handled at least 10,000 plugs this year, we wonder where Carrier and Connellan "get that stuff" when they say that the soil removed with a hole cutter will not completely fill a hole, and that a greenkeeper should go around with a bucket of earth to supply the deficiency.¹ Maybe so, but we don't do it that way.

Our equipment consists of the following:

1. A sheet, say, 18 inches square, of heavy tin, with a round hole in the center about 5 inches in diameter.
2. A hole cutter.
3. A hook to remove cups.
4. A loose handle on the hole cutter, say 2 feet long, and thick enough to fit loose.

Our operation of changing a cup consists of the following:

- (a) Removing old cup with hook.
- (b) Laying plate of tin on the spot where new hole is to be cut. The tin simply prevents damage to the turf while the hole is being cut.
- (c) The first cut on the new hole with the hole cutter is as deep as it can be made, say 4 inches, so as to remove as much soil as possible around

¹ See article, "Changing the Cup," in the September BULLETIN.