Appointment of H. L. Westover

At a recent meeting of the Executive Committee of the United States Golf Association Green Section, Mr. H. L. Westover, of the Office of Forage Crop Investigations, United States Department of Agriculture, was appointed Acting Chairman of the Green Section until Dr. Oakley's return to duty in Washington. For several years Mr. Westover has been closely associated with Dr. Oakley in Department of Agriculture affairs as well as in the experimental work of the Green Section. His name is already familiar to readers of THE BULLETIN.

Working Instructions for the Maintenance Staff*

By C. H. L. Knuth

The working force of any organization is continually subject to change and new recruits require a certain amount of training before the superintendent can leave them at their tasks with confidence that the work is going forward smoothly and efficiently. The following general orders should be understood and adhered to by the maintenance staff:

General

1. Remember that the players are the first consideration on the course. Be on the alert at all times in case a match may come up unexpectedly and your work or position interferes with play.
2. Do not stop work unnecessarily to watch the play. Members are liable to report such matters to the Green Committee.
3. Always gather up loose papers, sticks, rubbish, etc., that the course may be kept in a clean, tidy condition at all times.
4. Replace divots inadvertently left by the player.
5. Never leave wheelbarrow or tools in an exposed position, and on no account leave tools lying in bunkers.
6. Report to the greenkeeper at the first opportunity anything unusual that has come to your notice, such as broken fences, flag sticks, hoof marks, washouts, etc.
7. Answer all questions from players civilly and concisely.

INSTRUCTIONS TO GREENSMEN

Mowing Greens

1. Do not touch adjustment on mower; report immediately to greenkeeper if machine is not working properly.
2. Keep mower well oiled, but not too much, as drippings from machine will make dead spots in grass. Always wheel the mower to back and off green to oil it and leave oil can in a place where it will not harm the grass if knocked over.
3. Outline green by circling twice. This is to give a clean-cut border.
4. Strike a swath through center of green at a different angle from previous day's cut. Finish one-half from center to border in straight, even cuts from edge to edge, then repeat with other side. Be careful not to scar in turning at the ends.

* Reprinted from BULLETIN OF THE GREEN SECTION OF THE ROYAL CANADIAN GOLF ASSOCIATION, September, 1926.
5. Pile the clippings in a tidy heap, well away from the playing area, for removal to compost heap.
6. Carry a knife, and remove individual weeds, as dandelions, and plantains, when first seen.
7. Report weedy conditions, presence of worms or ants, and any general defect that may be observed, when first noticed.
8. Wash off mower with hose on return to barn.

Bunkers
1. Rake sand in traps by drawing from the center to the sides and pull the sand well up on to the turf.
2. Report if you think grass on mounds is too long, as after a soaking rain it might grow so fast as to escape the greenkeeper's notice.

Tractor Mower Operators
1. Do not alter adjustment on gang mowers, but report to greenkeeper or engineer if the units do not appear to be working right.
2. Go over the tractor thoroughly every day to see that all oil and grease cups are free and lubricating properly.
3. Replenish gas, oil and water before putting tractor away at night.
4. Report to greenkeeper if engine is not functioning properly.
5. Maximum speed 4 to 5 M. P. H.

Commercial Fertilizers
By H. L. Westover

The term "fertilizers" is an extremely broad one, having been applied to all substances that are added to the soil for the purpose of improving its capacity to produce plant growth.

The essential elements of plant food are 10 in number, to which may be added three others—sodium, silicon, and chlorin—which seem to be useful under certain conditions. Of the essential elements, four—carbon, hydrogen, oxygen, and nitrogen—are derived directly or indirectly from the air and constitute 90 percent or more of all plant material. The remaining six essential elements—calcium, magnesium, potassium, phosphorus, iron, and sulfur—are derived from the solid portion of the soil. While all these elements are essential, certain ones are more extensively used by crops than others and sooner or later require special attention in the way of increasing the available supply, particularly by applying additional amounts to the soil in some form, while others are used in such small quantities relative to the available supply that they rarely need consideration. The elements of special importance are nitrogen, phosphorus, potassium, and calcium.

NITROGEN

The amounts of nitrogen ordinarily available in nature are small. It is the element of the soil most used by crops and is the most expensive of plant foods of commerce. It is also most elusive, as it is sooner or later lost to plants through change in form. Nitrogen-containing compounds in plants are of special importance in relation to life and growth, since they form an essential part of the protoplasm, which is the living part of the plant cell. It is because of this relation that benefits of nitrogen are so soon displayed in the increased