

How Four Leading Greenkeepers

JOHN MAC GREGOR*

Chicago Golf Club
Wheaton, Ill.

—carefully schedules in advance the work to be done and then sees that his men follow the schedule closely.

It is only fitting that some public acknowledgment be made of the remarkable work that your Second Vice President, John MacGregor, has done at Chicago Golf Club during the year just completed. His achievement is not only proof of his knowledge of grasses and ability to handle men, but is evidence of sound thinking and planning as evidenced by the unusual results obtained under the method of operation which for lack of a better term, we have called the MacGregor System of greenkeeping.

His system is adaptable to any club where the greenkeeper is willing to knuckle down and run his operations with the same degree of attention that a small manufacturer devotes to his plant.

The MacGregor system has had one year's trial. It has been a severe season—one of unusual expense. The system has demonstrated itself so well that there is no reason why, with the same application, it should not do equally well year after year. The club or greenkeeper not operating under this or a similar plan can not control cost with any degree of efficiency. It is inevitable that as knowledge of its operation grows, more and more progressive clubs will adopt it.

The continued bickering about greens appropriations is answered under this plan, because it cuts costs and maintains quality, and the one without the other means nothing. In discussing this matter, we will talk of the MacGregor system rather than the man. He originated it—he operated it—others will inevitably adopt it. The method was the result of long experience and an inventive mind. The

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*MacGregor method as described in address of I. R. Allen, green-chairman, Chicago G. C., at Midwest Greenkeepers' Assn. meeting.

A. E. ARNOLD

Masonic Country Club
Comstock Park, Mich.

—allots an equal portion of the grounds to each man and thus makes each man a complete greenkeeper.

I AM pleased to write what I can regarding our system of labor; how we operated at first, how we are doing now, and how it seems to work out for us.

First, I might say something of the kind of organization I am keeping greens for, the magnitude of our grounds and some of the conditions under which we are operating which, of course, would have some bearing on our system of labor management that might differ with the management of many other well-managed golf clubs.

We are a Masonic country club organization of approximately 1,500 members, operating on a nominal dues and fee-paying basis. The membership is interested largely in golf, although many are tennis players, some are bowling-on-the-green enthusiasts, and many are interested in all activities the Club is equipped to offer them. We maintain at present 27 holes of golf, occupying more than half of our 400-acre holdings, situated along the west slopes of Grand River Valley just north of the Grand Rapids city limits.

Our bowling green has six lanes. We have two professional clay tennis courts and two asphalt courts, a children's playground, about two miles of scenic driveways through our wooded areas. We have many other activities, such as indoor baseball, quoits, archery, all of which require maintenance labor of varied classes.

Our club has been organized about ten years, and during that time it has passed through the periods of construction, semi-construction and maintenance and on into the period of nearly all maintenance, at which time we have now about arrived.

Our golf grounds, both in its construction and its maintenance stages, has been our major problem; however, the many other things we have, have required their

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Organize Their Upkeep Routine

WALTER C. REED

Westwood Country Club

St. Louis, Mo.

—divides up his staff into crews with specific tasks for each, while a roving foreman supervises their activities.

WESTWOOD Country Club is located on a tract of 240 acres. We have 29 bent greens, 40 tees, 166 bunkers, a large nursery, a flower garden, 6 tennis courts, a swimming pool, a horse barn containing 40 horses, and a very large lawn around the clubhouse. There is also a Green Section experimental garden and various other appurtenances incident to golf course operations.

The best way to explain our labor management policy is to outline the greens staff during the height of the season. It is as follows:

- 6 men cut the greens, tees and approaches and also keep the greens weeded.
- 1 man with Toro "Park Special" mower cuts all grass around back of greens and tees and similar places hard to get at with fairway mowers.
- 2 tractor men cut all fairways and rough around fairways.
- 1 Fordson tractor man cuts all outside rough; sprays all greens and tees for brown-patch once a week, and also helps to topdress greens, fertilize greens, tees and fairways; and whatever is to be done in that line.
- 2 truck drivers do all hauling and cleaning up on golf course and haul manure from the horse barn. We have 40 head of horses and there is quite a lot of manure to haul. They also haul coal for the clubhouse (and at this time of the year we use 100 tons per month), ashes, rubbish and various other jobs.
- 2 scythe men cut the banks of our 166 bunkers, and also rake the sand in them.
- 1 man looks after cups and flags on the greens, also changes the tee markers, tee benches. In his spare time he rakes grass after the scythe man and also rakes footprints out of the sand in bunkers.

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CHESTER MENDENHALL

Wichita Country Club

Wichita, Kansas

—obtains cooperation of men by always explaining in detail the "whys" and "wherefores" of each job.

THE large per cent of golf course maintenance budget being spent for labor is becoming a nightmare to most greenkeepers. As soon as a greenkeeper begins modernizing his methods of work and keeps records of the time spent on each job during the day, he cannot help realizing how much lost labor motion is costing his club. And the greenkeeper is directly responsible for this lost motion.

If he sends a man to mow the greens at a time when the man is sure to interfere with the players' steady progress the greenkeeper is at fault, not the man doing the work. Similarly, if two or three men are allowed to work together when the greenkeeper is not around, there is sure to be time wasted in idle talk. Men who can talk and work at the same time are few and far between.

The greenkeeper who keeps books on the total hours of labor paid for will soon see that many important jobs are being slighted, and that many hours of work are being charged to other work of very little importance.

I think the first move in cutting down labor costs is adopting a good bookkeeping system, one that does not take too much of the greenkeeper's time and at the same time gives him a record of where the total hours of labor paid for are spent.

Then, have good equipment and keep it in good repair. See to it that each man understands the machine he is using and that he takes pride in taking good care of it.

No Relatives on Crew

In selecting your crew, always select men who are fairly intelligent, clean, neat appearing, and willing to learn; as a rule they can be taught to do most any work around a golf course. Generally it is bad policy to hire a man who is related either to you or to any man who is working for



Greens like this one, the eleventh at Wichita, explain why the club finds Mendenhall's work so satisfactory.

you; they will expect favors that another man would not. Never allow yourself to become indebted to any workman in any way.

After a man has been hired, his instruction period begins. Getting a man started off right is a very important part of the greenkeeper's duties. The first thing to be impressed on the new man is promptness; if you start work at 7:30 in the morning, impress on him the importance of being on hand at 7:15 and not at 7:35.

Then he should be instructed very carefully about the machine he is to use and about the work he is to do. The greenkeeper should be sure that he has made everything clear; let the man understand he is free to ask any questions about the work he may wish. I know greenkeepers who leave a man with the feeling that he is just there to work and that it is none of his business why he is told to do a thing a certain way. I always try to take time to explain to a man why it is necessary that a certain green should have a little extra care, or that certain other things have particular attention. I think it makes a man feel an interest in the work.

I use eight men on our course during the working season. My schedule is arranged so that each man has his regular work each day. I find it is comparatively easy to teach a man to do one or two jobs correctly in a short time, while it takes considerable time to teach a man to do all the work around a golf course. Then, one man may be able to do some particular job better than some other man. If a man falls down on one job he may be good at another.

I have one assistant who is kept on all year round. During the winter months the two of us overhaul and paint all the equipment, replacing all the worn parts. As a result we have very little shop work to do during the busy season. We also have a compost shed which holds 200 yds. of

compost. This we fill in early spring or during the winter if we have a favorable time.

During the working season my assistant runs the fairway mower and changes cups on the greens. We cut fairways twice a week and change the cups four



Chester Mendenhall.

times. He is also responsible for all mowers. He comes into the shop each evening in time to check over the mowers for the next day's work.

I use three men mowing greens; they finish by 11 o'clock in the morning, and after cleaning and putting away their mowers each man attends to little things on his own greens which need attention, such as filling ball marks, picking weeds, etc. In the afternoon, one man takes care of the sand traps while the other two mow bunkers, approaches to greens and such areas with power mowers. I also use three men, and any other men that can be

pulled from their regular work for a few hours, to topdress greens. We topdress our greens every three weeks during the playing season.

We have all bent grass greens which are mowed every day during the growing season. One man takes care of Bermuda grass tees; they are mowed four times a week. Clean towels are put out and tee markers moved every other day. All bad divots scars in the tee are filled at the time the markers are moved. This man also puts out ice every day for drinking water.

One man is required for watering greens and tees. Commencing about 7 o'clock in the evening he waters one side of the course one night and the other the next, thus a green is watered every other night, a tee twice a week. A few tees are watered each night along with greens. In this way one man is able to take care of all the green and tee watering.

One man is required for watering fairways; we don't have water enough to water fairways and greens at the same time, so we have to water our fairways in the daytime. During rainy weather the two men are used to cut weeds and do other odd jobs around the course.

As our course is built on prairie land we had to plant a quantity of shrubbery and trees. One man is required to care for this shrubbery and trees during the summer. We kept our labor costs down to about 65% of greenkeeping budget during the past year.

Managers' Convention in Pittsburgh, Feb. 24, 25

PRESSING problems of club management will be aired and discussed in detail late this month when the Club Managers' Association holds its fifth annual convention, February 24 and 25. Headquarters will be the William Penn Hotel, Pittsburgh.

Most of the scheduled meeting of the convention will be in the nature of round table sessions which are expected to increase the informality of the gatherings and permit an easier interchange of ideas. The convention hall at the William Penn will contain the latest exhibits of numerous concerns selling the club manager.

A theater party and supper-dance is planned for the 24th, and the annual banquet is scheduled for the evening of the 25th, with a luncheon and plant tour at the H. J. Heinz Co. the following noon.

"COME TO COLUMBUS" IS GREENKEEPERS' INVITATION

By FRED A. BURKHARDT,

Chairman Show Committee The National Association of Greenkeepers of America.

COLUMBUS is calling the greenkeepers to the fifth annual greenkeepers' convention and golf show.

Take heed and enrich yourself of the constructive educational program and also see the new golf maintenance equipment.

The game of golf has spread rapidly through this continent and has progressed in vast strides. So has advanced our golf show and convention to meet the demands of finer golf courses. We are having an exceptionally good educational program. Even if we had nothing else to offer, you, as a progressive greenkeeper, cannot afford to miss it.

On the speakers' program are men of national reputation in golf course turf and maintenance problems.

The show room will also be of interest to men who like to see the latest in machinery built to help you maintain your golf course. What better place could you go to compare the different manufacturers' equipment, than to one room containing it all, with fullest facilities for close inspection? Anyone thinking about buying new equipment or replacements should see the display before making a final decision on purchases.

The chairmen who are interested in turf work will find our educational program is very interesting and they also will have a chance to look over a golf show put on by greenkeepers for the benefit of anyone interested in turf maintenance.

Park and cemetery superintendents are always welcome because many of their problems are our problems and we would like to see everyone who is interested in turf take advantage of this show and program of ours.

The show is going to be larger and the educational program better than ever before. All we need to make them a real success is to have everyone interested in turf work in Columbus February 3 to 6, inclusive.

IN New York state last year, 16 public courses cost \$183,000 to operate and their income was \$304,000. That's the reason why municipal golf is growing.

EQUIPMENT barns, caddie shelters and parking spaces should be screened with trees and shrubbery. Emphasize the natural features of a golf course; conceal the accessories.

Westwood's Work Keeps Greensmen Stepping

By WALTER C. REED

(Continued from Page 33)

- 1 mechanic is kept busy keeping all tools in first-class working condition, including tractors, trucks, lawn mowers, and all other tools and implements. It is his job to maintain in good condition the club's drainage and water systems.
- 4 men water greens, tees and approaches; care for the flower garden, the trees, nursery, etc.
- 4 men keep six tennis courts, the Green Section experimental garden and the swimming pool, drained and scrubbed every Monday, in good condition. These men have three acres of bent lawn around the clubhouse to be kept cut and watered; shrubbery to be watered when needed and spaded over once each month; walks to be kept clean of weeds and in good shape.
- 1 foreman checks the assignments of the men and sees that every man is doing his work properly. My foreman and I sit down one-half hour each day and plan our work for the following day.

In this way we have our work running smoothly at all times. Everybody works here; this is no old soldiers' home. We have twenty-five men in busy season, only four during the winter.

Michigan Holds Greens Short Course, Feb. 16-19

MICHIGAN State College of Agriculture will hold a short course for greenkeepers Feb. 16-19.

John Dustin, president of Western Michigan Greenkeepers' Association, will serve as chairman. Profs. Millar, Grantham, Harmer, Robey, Halligan, Musselman, Muncie, Megee and Pettit of the college faculty will be on the program. Others who will figure in the short course are C. A. Stahl, Michigan state seed analyst; Herb Shave, president of Michigan and Border Cities' Greenkeepers' Association, and representatives of the Green Section.

Complete details of the course may be secured from Prof. C. E. Millar of Michigan State College, East Lansing, Mich.

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from the standpoint of one of the operators of a pioneer fairway watering system in the middle west. Mac has made an extensive and practical study of the fairway watering problem as it hits the average well-maintained course in the central and eastern states, and knows his stuff to the degree that he won't go to bat stating his own, particular system is the world's last word. This always is a program novelty.

Joe Williamson of Scoto is slated for an address on "Practical Greenskeeping," which has the keynote of aligning effectively the lessons of actual work on the course and the discoveries and suggestions of the laboratory turf scientists. Ed Dearie, another prominent greenkeeper, is ticketed for summarizing his observations on practical drainage of golf courses. With the budget calling for exact figuring by the greenkeepers the remarks of Edward W. Doty, treasurer of the Cleveland District Golf Association, are bound to prove illuminating to the greenkeepers. Doty has been a close student of golf club bookkeeping for some years and the pitfalls of maintenance bookkeeping that trap the unwary greenkeeper are old stuff to him.

A very interesting and practical phase of the program will be the competition in green construction between teams representing the eastern seaboard, the Pennsylvania sector, the mid-west and Canada. Each team will be given the details of a par four hole requiring a green.

On the technical side of the program the association has picked such stars as Prof. Lawrence Dickinson of Massachusetts Agricultural college, Prof. J. W. White of Penn State college, R. H. J. DeLoach, research expert of Armour Fertilizer works, Dr. Howard Sprague of New Jersey Agricultural college, B. R. Leach, Martin A. Davey, of Davey Tree Expert Co., and T. E. Odland of the Kingston (N. J.) Agricultural Experiment station.

Each Worker A Greenkeeper Is Basic Policy

By A. E. ARNOLD

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share of construction and maintenance labor problems.

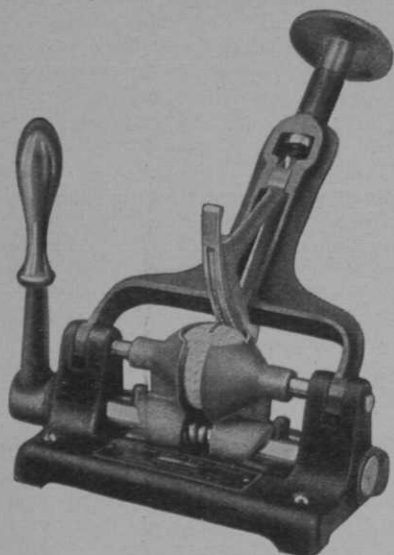
The first few years of its development and activities, the maintenance labor was to a large extent shifted about from maintenance to construction work and vice

versa. We did not allot any particular area or job to any one man, as our equipment was limited and the work was new. Our greens were watered by a night crew and were whipped and mowed the first thing each morning, the cups being re-set and the grounds in general dolled up by the maintenance crew—this work usually completed at noon, leaving the grounds in the afternoon as free from interference by working men as possible. The crew would be detailed to other work, preparing top-dressing materials, etc., but largely to construction work. Greens were topdressed regularly, weeded and fertilized by a part of this crew but always on a detailed plan, which at that time, seemed to be a conservative way.

As time went on and the construction work nearing an end, the demand began to grow for a higher state of perfection on our golf grounds in general. Together with this desire, the fungus diseases became prevalent, the desirability for a better strain of grass for the greens, the need for a greater and more efficient water supply, and a demand for more efficient service in general, together with the adoption of a budget system, all of which have necessitated a keen study of both labor management and turf culture.

The whole thing has boiled down to a well-established fact in my mind—that the nearer a greenkeeper one can make each man of our golf ground crew and the more interested he be kept in his work, the better one is able to maintain that high state of perfection on the grounds at the least possible cost.

With this belief in mind I am following that plan whereby each man of our maintenance crew is allotted a certain area of ground containing a certain number of greens, tees, traps, trees, etc., of which he has complete care, except, of course, the fairway mowing and the general watering which is done by a night-watering crew. He is equipped with all the tools that he needs, such as mowers, rake, shovel and shears. This system seems to promote a better condition, because it tends to create a spirit of competition between the men to produce the best greens and general appearance of his section. The size of the area and the number of greens and tees allotted to each man depends on the size of the budget which in turn is regulated by the income of the club. Of course, the fatter the budget, the more and better service can be given. But with a reason-



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able budget, this system does seem to prove out as the most satisfactory way to manage the maintenance labor.

During a part of our 1930 working season my budget allowed for one man for every three holes, including greens, tees, traps and any trees that were included in the area. Including a practice green and a bowling green (which is equivalent in area to two putting greens), we have the equivalent to 30 greens, which were divided into ten districts. Each district had one man for its care. In addition we employ two tractor operators, a night-watering man, an extra man for miscellaneous work and a foreman. I was well pleased with the results obtained with that crew. The season was very dry and it required a great amount of extra watering during the day.

Early night watering of the greens I think is by far the best time, but owing to the inability of the workmen in the dark to see as well where all the water is falling, especially when the wind changes, it is impossible always to get a good job; therefore the day man follows up and finishes that work each morning.

Topdressing materials heretofore have been a large labor item with us; however, last year I changed to a better plan for making compost which not only cut the labor cost of the material but produced a very much better grade of compost. We covered a quarter acre of sandy loam ground four inches thick with decomposed barnyard manure, plowed it about seven inches deep, covered again with two or three inches of the same kind of manure and disced in several times until it was well cut into the soil and followed up with a good discing each week until about the middle of August when we harvested it by scraping the soil to the depth of the plowing into huge windrows. Large piles or windrows tend to keep the material dry and available at all times to screen out and apply to the greens; also the soil bacteria (which have grown to the highest state) are kept dormant until the compost is applied to the greens. This change in method of preparing topdressing material I think is very much worth while, particularly because of the quality of the material it produces.

Chairman Lauds MacGregor's Greenkeeping Plan

(Continued from Page 32)

application of the method was that of a capable greenkeeper.

This is rather a long preamble. The net results are what will interest you. Bear in mind, please, that we are dealing with greenkeeping, excluding course changes and new construction.

Chicago Golf Club's greenkeeping costs always closely paralleled those of similar

clubs in the Chicago District. Our standard of course maintenance has always been very high — with a small, well informed and rather critical membership watching conditions closely.

Take the year 1929. Total greenkeeping costs (labor and upkeep) were \$26,263.20. The budget, made under



John MacGregor, greenkeeper at course Rob Jones pronounced best conditioned course he'd ever played.

the MacGregor system, at the beginning of 1930 was (labor and upkeep) \$22,430.00. This substantial saving was to be accomplished without reducing wages and without skimping the course—neither of which were even considered.

Now as a matter of fact, in spite of the drought which necessitated materially more watering than was planned (we water our fairways) and a serious attack of grubs under the fairway turf, the close of our year showed on the club books a total (labor and upkeep) expense of just \$19,652.75. *Nearly \$3,000.00 under the budget—over \$6,500.00 reduced from the previous year!*

Our members commented on the good condition of the course—and in some respects we did even more work than in previous years. For example, traps were raked daily instead of once a week.

Now as to how this was accomplished—the detail of the working of the MacGregor system.

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Use the ON-A-LINE yourself—and set an example which your pupils and club members will be quick to follow.

Ride through the 1931 season with easy additional PROFIT!



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The green-committee talked with MacGregor and he reduced his ideas to paper. The experiment was approved. Course changes, equipment, etc., as variables from year to year were separated from labor and upkeep, which are the continuous charges. The green-committee acted as a unit. The greenkeeper dealt with the body as one man instead of receiving separate orders from three individuals.

A careful analysis was made by months of the year as to the work entailed in the various months. A working calendar dividing the work into eleven divisions was made.

The greatest problem in greenkeeping is admittedly the supervision of labor. Articles have been repeatedly written about it—the subject is under continual discussion by interested parties.

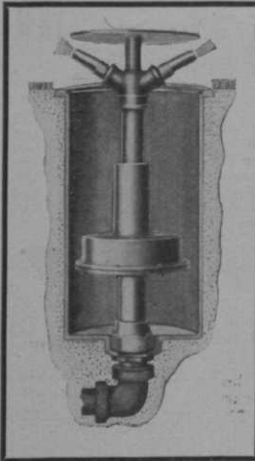
Where a crew is working together, control of work is simple—the sluggard—and the slipshod are under observation. With from fifteen to twenty men scattered out over a hundred acres or so, individual supervision is impossible—even with a car—a horse or field glasses. Effectively dealing with this condition will naturally bring about a substantial labor saving.

To meet it, MacGregor made a complete

change—a revolutionary change in accepted greenkeeping organization and supervision plans. Under the old method, the problem was one of watching the men to see that the work was done. He discarded this entirely.

Under the MacGregor system, golf course work is divided into eleven broad divisions—then subdivided into daily tasks for individual workmen. Each workman has a reasonable and fair daily task to perform. The greenkeeper inspects the work and its quality. Whether the laborer is fast or slow makes no difference. Whether he can or cannot deliver a good average day's work of good quality is not a question. The story is written in his results. This does not mean an abandoning of superintendence—but it does mean a simplification of it.

With this new plan, the year's calendar of seasonable work was analyzed and reduced to individual day's labor. Men were allotted work as efficiently as possible and probable costs forecast. A monthly budget was made—with some question, which was evidenced by the fact that a thousand dollar reserve was established to play safe. Still—the total project was substantially under the preceding year.



Here is the ROBIN POP-UP in action. Far-throwing nozzle covers the outer part of a circle 80 to 100 feet in diameter. Other nozzle covers inner circle. When not in use, the sprinkler drops down into its casing, completely out of the way.

For FAIRWAY SPRINKLING the *NELSON* ROBIN POP-UP

THE ROBIN POP-UP

Fairway Sprinkler head covers an area up to 100 feet in diameter. 8 or 10 heads cover an acre of fairway. The casing containing the sprinkler is sunk so that the top is flush with the ground.

The ROBIN POP-UP is best used in series. When the water is turned on, all sprinklers controlled by that valve automatically rise above the ground and rotate as they sprinkle.

Shutting off the water causes them to drop down again, completely out of the way. The gearless, positive action of this sprinkler is simplicity itself. Proven satisfactory in every respect by two years of testing. Unconditionally guaranteed.

One man is capable of caring for an entire course. There is no hose to handle or sprinklers to be reset frequently.

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Send us a sketch of your fairways and we will send you FREE blue prints and plans showing arrangement, amount and sizes of pipe, fittings, and valves necessary for an underground system. Get the facts today.

VISIT OUR BOOTH AT THE COLUMBUS SHOW

See our advertisement on the Lark Sprinkler on page 10.

L. R. NELSON MFG. CO., Inc. 1740 S. WASHINGTON ST.
PEORIA ILLINOIS

The MacGregor system was launched—with the agreement that changes would be quickly made where weaknesses developed.

But no weaknesses developed! The plan, founded on many years of experience, solved the problem it was aimed at. Costs ran far below the budget estimates. But don't think it ran itself. On the contrary.

Various forms available for greenkeeping cost records were examined, but discarded because they were all designed for office accounting, and what MacGregor wanted was daily field records. So he worked out a series of forms to control his labor costs according to his own ideas. They are simple and comprehensive, not requiring a bookkeeper to run them, but they tell far more than most existing club greens records.

These forms were divided into the major divisions of labor and upkeep costs. From his time books and purchases he posted continuously. Each month's totals were taken off and records made of "over" or "under" the budget for that particular month, as well as the standing against the budget for the year to date.

In looking over these records at the end of the year, it is really a case of the greenkeeper keeping books to know where he stands every day, and it was well worth while. There was no waiting for the accountants; the greenkeeper was in closer touch with his costs from day to day than could possibly be the case through normal channels of accounting. And control of costs can not be fully accomplished unless the man in charge of expenditures knows where he is at every moment of the time.

If the question were asked: "What are the basics of the MacGregor system?" the following would be a good answer—assuming to start with, that the club has a greenkeeper who knows grasses and his work:

1. *The handling of labor largely, the inspection of assigned tasks instead of the supervision of men to see that they do their work.*
2. *A fair and honest budgeting of labor and upkeep by month and division of work.*
3. *A system of records kept by the greenkeeper showing him daily where his money goes.*
4. *Prompt and immediate action by the greenkeeper to eliminate waste—to control his costs.*

This statement is simply a recognition of creative and unusually productive work.

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BARBAK 211

The new Brown Patch preventative and cure; reduces greens upkeep cost; gives longer periods of prevention and can be used either as liquid or dust. Barbak 211 will revolutionize Brown Patch control.

GOLF EQUIPMENT

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We also specialize in all imported and domestic grass seed for the golf course. Catalog free.

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