THE BULLETIN

of the

UNITED STATES GOLF ASSOCIATION GREEN SECTION

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Monthly Topical Discussions

With this issue of THE BULLETIN we begin a somewhat different method for presenting material. Under the new plan the major portion of each issue will be used for a discussion of a single topic. We shall endeavor to have each subject discussed by several individuals and shall try to obtain as many viewpoints as possible. We feel that this method should prove more instructive and interesting than have been the disconnected discussions scattered through several numbers of THE BULLETIN in the past. Also we hope it will make THE BULLE-TIN more useful for future reference, for when a greenkeeper or green committee member wishes to look up some particular subject it should be less difficult to find it in one issue than scattered throughout one or several volumes. In the present issue we give a discussion of cost accounting methods. Its preparation has been made possible by the hearty cooperation of the several writers who have contributed their different opinions based on years of experience in golf course maintenance problems. Unfortunately our new plan had not been formulated at the time the March issue went to press; so Mr. Rockefeller's article was published at that time. Our present discussion is not complete without reference to his article.

If you have any criticism of the new plan, or of the particular discussion in this issue, we shall be glad to have you forward it to us. In later issues we plan to prepare a similar discussion on fairway fertilizers and another on water systems and watering of turf. If you have any suggestions which you believe would be of interest to readers on either of these subjects we should appreciate having you send them to us at an early date.

Standardized Accounting on Golf Courses

For several years there has been apparent an increasing interest in methods of cost accounting on golf courses. There are individuals who feel that the United States Golf Association Green Section should devise some standard form for the keeping of accounts on golf courses and should urge all clubs to adopt this standard. It is possible that some standard method would serve to furnish interesting comparisons of maintenance costs of clubs in different sections of the country. Aside from thus serving to provide information for the satisfaction of those with cosmopolitan business curiosities, we can see no useful purpose in any universal standard accounting system, nor in general cost comparisons. The Bulletin will, therefore, for the present at least, make no effort to devise or encourage any one system of keeping golf course accounts. This by no means implies

that we oppose cost accounting. Golf courses throughout the country constitute important business establishments; and regardless of methods used in "the good old days," we recognize that throughout the country there is a full recognition of a need for modern business methods to account for the receipts and expenditures of golf courses. The active interest in this subject which is at present in evidence in many localities, both among club officials and greenkeepers, should shortly bring about solutions for the problem in each important golf course center.

In the March number of THE BULLETIN Mr. William J. Rockefeller, of the Inverness Club, Toledo, dwelt at length on the call for standardized accounting methods. He pointed out some of the difficulties that must be faced, and indicated the unfairness that ordinarily lurks in comparisons of costs. Evidently cost comparing has been going on in the Toledo district for some time, either formally or informally, and Mr. Rockefeller speaks from experience.

Since the publication of Mr. Rockefeller's article we have received several interesting contributions on this subject. We are presenting them together in this issue of The Bulletin, so that readers may readily compare the viewpoints of several writers. Unfortunately we can not include expressions of opinion and copies of record sheets from every district interested in this subject. However, we are sure the collection here given will give representative views as to what should and should not be included in any workable system.

There seems to be full agreement among our contributors that some system of accounting should be used on golf courses. They, however, vary in the degree of simplicity which they advocate. There seems to be a general recognition of the difficulties attendant upon complicated bookkeeping methods. These writers point out the value of year-to-year comparisons of costs within the club itself, and the value of comparisons with other clubs. Standard ledger headings and standard cost comparison sheets have been prepared on a number of courses, and a few of them are here copied so that clubs interested in this problem may have the benefit of the experiences of others.

We do not make any recommendations as to the most desirable system. Some organized system of accounts is unquestionably desirable; but the practical application of this standardization rests with the clubs themselves. In several districts a standard system is now in use and is proving to be profitable.

Any achievement which has demonstrated its value is frequently "overworked" by its most ardent enthusiasts. When some standardized accounting fans enthuse over their hobby, one sometimes is led to believe that a golf course is run primarily to supply figures for a cost accounting system. Perhaps some individuals with this extreme viewpoint led Mr. Rockefeller to suggest as follows:

"The Green Section can perform no better service for the greenkeeper who is harassed and annoyed by such comparisons than by pointing out to club officials and trustees the unfairness and injustice of comparisons of total cost."

Cost comparisons, while undoubtedly helpful in many respects, are dangerous unless one takes into account the large number of

factors that should be considered. One might safely compare manufacturing costs of golf clubs or golf balls made at different factories provided he were to take into account the quality of raw materials, the "finish" of the product, and other limiting factors. Manufacturing processes of such products are relatively uniform as compared with the manufacture of the greenkeepers' product—growing turf. It is the greenkeepers' job to produce turf, and produce it economi-"Economical production" on one course may be synonymous with "cheap production," but on other courses it may be extremely "expensive production." In one case a course may be located on a tract of waste land which a club was able to buy at a low figure simply because no sensible farmer would attempt to raise crops on it. Another near-by course may be located on land which had previously been a well-cared-for, fertile farm. Just why some men should expect a greenkeeper to produce turf as cheaply on the former as on the latter of these two courses, we regard as another of the "great mysteries of human nature."

Country Club Bookkeeping

By E. W. Doty, Treasurer of Cleveland District Golf Association and Treasurer of Westwood Country Club

Certain costs arising from the operation of a golf club are, generally speaking, of two kinds: (1) those costs that may and usually do vary with different clubs, such as the cost of clubhouse management. restaurant operation, entertainment, and similar features; and (2) those costs which have to do with operations that are practically the same in every club, these latter having to do with the cost of maintenance of the course. The costs in the first group include anything that the managers and members may desire. No two clubs are alike in respect to such costs, and any comparison of them is the exercise of pure curiosity and has no effect on operation. However, the costs of maintaining the course may be standardized and compared. By that is not meant that every club desires to keep its course exactly as another club does. But each club has eighteen holes or nine holes, as the case may be; and if we charge against the cost of maintenance only such materials and services as are necessary to present the course at all times in the playing season ready for the play of golf according to the rules of the game, we shall be able then to know, by comparison, the results of the efforts of the greenkeepers and the green committees.

As long as the cost of caddy cards, caddy masters, score cards, laundry, professionals, tournaments, and trophies are mixed in with the cost of manure, cutting grass, smoothing sand, and the other countless necessary things which must be done so that the course is ready for the game of golf, we shall not know much about the actual cost of upkeep. Golf can be played without score cards, without caddies and caddy masters, without tournaments, and without ice on the course or towels at the tees, but it can not be properly played if the grass is not cut, the greens not kept in condition, the sand in the traps not renewed and smoothed, grass seed not sowed, and manure not spread.

All I contend is that the costs of actual maintenance be accumulated under one head and the cost of all the other services, which in

my own accounts I call "green service," be accumulated under another head. Under actual "maintenance" I include such expenses as electric light and power, new and replaced equipment, express and freight, fertilizer and seed, flags, gasoline and oil, Green Section dues, hardware, lumber, motor and machine repairs, paint, payroll, postage, printing and stationery, sand, teaming, telephone and telegraph, tile, and top soil. Under "green service" I include such expenses as Association dues, ball washers, caddy house repairs, electric light and power, ice, laundry, payroll, postage, printing and stationery, repairs, and trophies.

Under this system it will be possible to make comparisons of the cost of upkeep per hole. When such cost means the same for every club, the resulting figures will then make it possible to compare the results of the efforts of greenkeepers and green committees. Nearly all clubs complicate their accounts, so that it is impossible to make a comparison that will aid anyone in his future work.

The useless attempt to allocate receipts to this activity and that is carried to excess by many club accountants. It is easy to allocate to the golf course, as an earning, the fees taken in for playing privileges. But what good does it do when such allocation is made? The attempt of some club accountants to allocate the receipts from club dues to the various activities of the club is just plain silly. Saying that $42\frac{1}{2}$ percent of a member's dues shall be credited to the golf course as an earning, and 13 percent to the locker room as an earning, and so on, is like standing a dog on his hind legs—very interesting—but what good does it do?

If we shall standardize our definition of what ought to make up golf course maintenance, and pay attention to those costs and their results, which we may do by intelligent comparisons, country club accounting will get quite a boost.

Budgets and Standardized Accounting for Golf Course Maintenance

By Frederic C. Hood

At the meeting of the United States Golf Association Green Section held at the Hotel Astor early in January, discussions on various subjects brought out a wide variance in the cost of golf course maintenance, the lowest being about \$7,500, and the highest, over \$30,000.

As a few clubs connected with the New England Service Bureau have agreed on standardized accounting I was asked to prepare an article for The Bulletin telling our experiences.

The amount of money to be spent annually by the chairmen of green committees is usually appropriated by the board of governors, and this gross amount must fit in with the total receipts and expenditures of the club. This appropriation usually covers new construction as well as maintenance. Some new construction work may be added to "plant" values and some work is only a repair and does not add any "plant" value. A new bunker usually is only an expense. A new green may not add any "plant" value, while a new hole or two may add "plant" value. The determination of what construction changes add "plant" values to the assets of the club is usually depend-

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ent upon the size and importance of such changes, as well as the exchequer of the club, its financial and social status, i, e., whether a business corporation, or a social club, and the policies of the board of governors regarding its financial statement of assets and liabilities.

For these and other reasons (many of them controversial), the standardized accounting of the New England Service Bureau eliminates all work that is "construction" and for the present confines itself to maintenance only. The ledger accounts have no real controversial problems but are determined arbitrarily, as are most ledger accounts, and are named and defined to cover groups of activities that a green committee chairman usually discusses as natural groups.

A list of these ledger accounts, the meaning of each ledger account, and the cost of maintaining the Kittansett Club's 18-hole golf course at Marion, Massachusetts, for the calendar years 1926 and 1927 are given at the end of this article. The lower costs of 1927 as compared with 1926 illustrate the value of budgeting and standardized accounting, though of course proper weight should be given to the fact that Kittansett is a new course built in a virgin New England forest and full of rocks, stones and weeds. As a result some time is required to get the layout into proper condition for reasonably straight shooting.

The cut fairways at Kittansett average 160 feet in width and are never less than 150 feet wide at 200 yards. The clearings through the woods average 210 feet in width and are never less than 200 feet wide at 200 yards, thus providing about 25 feet of sheep's fescue rough between the cut fairways and the woods. The woods are cleared for a distance of not less than 25 feet from the edge so that a player has an average of 250 feet at 200 yards for a playable lie and where the ball can be readily found.

Each course has its own problems, but this description is given so that those who attempt to compare their operations with Kittansett will understand the reasons for differences in sub-ledger account costs.

It might also help to say that Kittansett's tees are large in size, that it has three full sets of tees, the three lengths being 6,400, 6,100, and 5,800 yards, respectively. There are about 70 sand traps, about 70 mounds, and the greens average 6,000 square feet in area. Kittansett pays 6 men 55 cents an hour, and the others 50 cents an hour.

While the Kittansett course is playable all winter, maintenance usually begins in March and ends in November, so that little outside work is done for four months. Full-time work is done for six months, and half time for two months, but as there are houses and roads to be constructed and grubbing and general outside work to be attended to, we are usually able to keep our six key men occupied throughout the year.

The arguments in favor of budgeting are so well known that it seems futile to repeat them in this article. I would not know how to run a business, or home, or a golf club, unless I had budgets to guide me.

Budgets are harbor buoys to inform the pilot where the safe channels are for the ship; budgets are the direction flags on the golf course to mark the best direction for the golf player; budgets are guides to lead you on the right course and to designate the desired

end; budgets are safeguards to keep one from spending money before he knows he has the money to spend; budgets are warnings not to spend money for something you don't need, and reminders of the needs that you will require money for later. Every person with a fixed personal income must budget his expenditures, or he will suffer for his foolishness. But the whole is simply the sum of the parts, and this article has to do with the parts.

Just as one knows his total income and his total expenditures, he should keep enough figures to know what he spends for food, clothing, shelter, sickness, pleasure, etc., so if his income is reduced he can know which item he can reduce with the least inconvenience—for thrift is wise spending.

We establish sub-ledger accounts under golf maintenance, each with a definite meaning. As a result the several years are comparable, since the accounts have been kept alike. If several clubs will keep their accounts by the same system of ledger accounts, each can compare its operations with the others, and each can both learn from the mistakes of others and profit by their efficiencies.

Greenkeepers are greatly aided in their work with the chairmen of the green committee, greenkeepers with other greenkeepers, and green committee chairmen with other green committee chairmen, because they all talk the same language. Everybody is ready to pay for service rendered if he only knows how to measure the service rendered. This article therefore is a plea to aid the greenkeeper by giving him the detailed costs of other clubs as well as his own costs, and a plea to the green committee chairman to reward his greenkeeper for service rendered.

The sub-ledger accounts used by several clubs in the New England district for golf course maintenance only are as follows:

Standardized Accounting Ledger Accounts

Sub Items Main Included ... Account Account Mowing Greens Labor only Tees Labor only Labor only **Fairways** Rough Labor only Watering Labor Water used **Topdressing** Greens Lahor Loam used Chemicals used Cost of baking loam Tees Labor Loam used Chemicals used Fairways Labor Loam used Chemicals used

Weeding Greens Labor only Labor only Tees Fairways Labor only Outside Rough

Labor only (does not include mowing) **Teams**

Bunkers Labor Sand

Labor for-mowing, watering, topdressing, Turf Gardens

weeding

Merchandise for-stolons, fertilizer, chemi-

cals Note: Turf gardens account will be credited

with sales of turf and stolons and inventory taken to show value of net cost.

Merchandise Note: Will be kept under an inventory account and cost will be stock at beginning, to which add purchases and deducting in-

ventory will give cost.

All seeds or stolons purchased. Seeds

Fertilizers Sulfate of ammonia, ammonium phosphate,

manures.

Calomel, sodium arsenite, arsenate of lead, Chemicals

and other chemicals for golf course.

Gasoline & Oil Gasoline, oils, grease, etc., for machines.

Golf Machinery Such as mowers, tractors, trucks. Repairs

> Barn & Contents Such as paints, repairs to machine shop.

Such as tee boxes, golf cups, poles, flags, Golf Equipment

water line repairs.

An inventory of fixed assets, taken 12/31, Depreciation

and depreciation figured by treasurer once a year on all golf machinery, barn con-

tents and golf equipment.

Everything Else. Incidentals

Note: 1. The total of the above accounts comprises the maintenance budget. Note: 2. It is suggested that each chairman, however, include an amount for incidentals to take care of unforeseen contingencies.

Note: 3. Inventory is taken four times a year of all merchandise on hand in detail covering

> Turf gardens Unbaked loam Seeds Baked loam Chemicals

Note: 4. Budget sheets will be made monthly.

Note: 5. Additions of wood roads, major construction, new tees, enlargement of tees, new traps, charged to construction.

Note: 6. All other repairs and maintenance of other property kept separate from golf course budget.

The greenkeeper keeps the time of his men on a weekly time card, with a carbon duplicate, one card for each man. These cards comprise the pay roll. The men are paid by check. The facsimile of each side of the card is reproduced herewith. All figures are carried forMay, 1923 95

ward and totaled on the reverse side. Each week the bookkeeper sends the greenkeeper a summary of weekly costs on this form, and each month sends him a budget sheet with the current year's budget, and previous years' costs, for comparison.

As an illustration of budgets and actuals, the maintenance costs for the Kittansett Club for 1926 and 1927, and the budgets for 1927 and 1928, are listed below, but without the salary of the greenkeeper.

	1926 Actual Cost	1927 Budget	1927 Actual Cost	1928 Budget
Mowing:	Cost	Duuget	COSE.	Dudget
Greens	\$971	\$828	\$1,001	\$996
Tees	238	228	267	300
Fairways	657	552	384	384
Rough	467	444	844	480
	882	900	573	420
	004	300	010	420
Topdressing:	1.168	804	642	720
Greens	38	144	11	180
Tees		300		420
Fairways	1,066		229	
Weeding	272	252	431	360
Outside Rough	459	204	48	60
Bunkers	705	300	443	420
Turf Gardens	493	504	• • •	180
Merchandise:				
Seeds	619	252	258	180
Fertilizer	1,464	252	629	. 600
Chemicals	425	504	97	120
Gas & Oil	749	744	787	780
Repairs	1,552	900	1,637	1,500
Depreciation	990	900	313	600
Incidentals	780	840	1,089	1,476
Total	\$13,995	\$9,852	\$9,683	\$10,176
Total Labor	\$6,794	\$5,006	\$5,050	\$4,990
Total Materials, etc		4,846	4.633	5,186
Total		\$9.852	\$9,683	\$10,176

Any detailed information regarding the procedure will be gladly furnished on writing to the New England Service Bureau, 50 State Street, Boston, Mass.

Cost Grouping at Mission Hills Country Club

By Henry Burr, Kansas City, Mo.

The article by Mr. William J. Rockefeller on "Standardized Accounting" in the March BULLETIN strikes a responsive chord in the writer's breast, and I am sure the subject must be of vital interest to hundreds of green chairmen in the United States.

While it will be impossible to lay down hard and fast rules that would be adaptable to any great number of clubs, there are certain underlying principles of cost accounting that may be used not only for the purpose of comparative costs but for assistance in making up the annual budget and explaining why we can not "do it for less this year."

As Mr. Rockefeller states, the average greenkeeper is not only a very poor bookkeeper, but very little interested in that part of the

work; yet to control expenditures intelligently and so get the most for our money, it is necessary to know what similar work has cost in the past in our own club, and it would doubtless be valuable to know what other clubs in the same locality were spending for like items—if we could ever get them to tell.

So, leaving aside for the present a discussion of the possibility of any absolute uniformity between clubs, I wish to urge the importance of the club itself at least adopting some general plan of recording their costs, so that the succeeding green committees may know exactly what has been done in the past. If this cost system is changed from time to time in its essentials, the only record the club will have is that a certain gross amount was spent in a given year.

Such a system, as pointed out by Mr. Rockefeller, need only deal with essentials. Any attempt at too much detail will ruin its application, as such details will vary from year to year and not be com-

parable items.

The green committee is usually on the defensive or on the run. When the job was wished on me several years ago, the archives disclosed that one of our predecessors was called upon to defend his expenditures as against two older local clubs. He was fortunate enough to get their figures, and I presume then "pointed with pride" to the fact that their committees were charging only actual labor, fertilizer and sand to greens upkeep.

In order to have a tangible mark to shoot at, we give below the grouping of accounts used to check costs, not offering them in any sense as a model, or as particularly commendable. The charges against these accounts are made by the club bookkeeper from the labor tickets turned in by the greenkeeper, and from invoices of material purchased. If any special work is undertaken, the greenkeeper is instructed to show charges against it, for the information of the committee, but its cost nevertheless is placed in its proper general grouping.

I. Labor (maintenance of course).

Repairs and maintenance (of existing equipment).

Fertilizer, sand, seed, etc.

Water.

Sundries.

II. Salaries (of employes not directly engaged on course).

Taxes.

Insurance.

Telephones.

III. New equipment and machinery.

New planting (trees, shrubbery, etc.).

Golf course improvements.

Bridges and buildings.

Golf course supplies.

It will be noticed that the items in the first group are such as deal with the ordinary upkeep of the course and will not vary a great deal from year to year. In the second item of this group are also charged such small tools as the army would class as "expendable."

The second group may be classed as "overhead," more or less fixed in its nature, and often more or less vexatious to the average committee. It comprises in our case taxes on that portion of the grounds May, 1928 97

occupied by the links proper, portion of the bookkeeper's salary, that of the caddy master, liability or compensation insurance, fire insurance on machinery and buildings used for the course, and telephone.

The third group represents expenditures for capital account which increase the assets of the club, and in this group is found the largest variation, depending entirely on new work of this character undertaken for the permanent improvement of the property. labor expended on such work is of course an element of its cost.

We have found a grouping even as general as this to be a great help in estimating our costs for the coming year. We can ascertain the average costs in Group I over a number of years with allowances for any increase or decrease due to change in methods or course development, new seeding, and the like. Group II varies but little, and Group III requires only estimates of new machinery to be purchased or new construction to be undertaken.

In addition to this, the greenkeeper has on his labor tickets for the men certain general divisions of the work on the course, opposite which the hours of labor can be entered, with provision for noting any special work on which it seems desirable to run costs for a time.

Therefore, in conclusion, while there can be little doubt of the theoretical value of a standardized system of accounting between the clubs in a general way and an exchange of ideas on that subject, I am by no means prepared to say that such a system can be worked out in practice. Perhaps the first step is for the individual club to adopt, if it has not already done so, a system general enough in its form and elastic enough in its divisions that it may, for the purpose of comparison, be continued from year to year with little change. Let it be general enough to show where the money goes, but not so subdivided as to be a burden and a bore. Then the greens committee, armed with each year's expenditures in neat parallel columns for like accounts for the last four or five years, can go forth to meet the watchdogs of the treasury and do valiant battle for the little blades of grass.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912, OF THE BULLETIN OF THE UNITED STATES GOLF ASSOCIATION GREEN SECTION, PUBLISHED MONTHLY AT WASHINGTON, D. C., FOR APRIL 1, 1928.

District of Columbia, ss:

Before me, a notary public in and for the District of Columbia, personally appeared H. L. Westover, who, having been duly sworn according to law, deposes and says that he is the editor, managing editor, and business manager of The Bulletin of the United States Golf Association Green Section, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are: Publisher, United States Golf Association, 110 East Forty-second Street, New York, N. Y.; editor, managing editor, and business manager, H. L. Westover, Washington, D. C.

2. That the owner is the United States Golf Association, a corporation organized and existing under the law not for profit and having no capital stock.

3. That there are no outstanding bonds, mortgages, or other securities.

(Signed) H. L. WESTOVER, Editor.

Sworn to and subscribed before me this 2d day of April, 1928.

(SRAL) (My commission expires August 5, 1932.) (Signed) BERNARD CONNOR.

Tile drainage is generally not necessary where a green is on a sandy subsoil and the land is not bothered by standing water.

Greens Cost Sheet in Use at Meadowbrook

	printitee: Chairman; per year, with free	
	Labor at toper hour	
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	Maintenance	ĺ
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The above are respectively the front and back of the greens cost sheet in use at the Meadowbrook Country Club, Northville, Mich. It has been kindly furnished for readers of THE BULLETIN by Mr. William H. Aston, chairman of the green committee of the club. Mr. Aston writes that the headings on the sheet are the same as the headings set up on the books of the club. The sheet is the

Country Club, Northville, Mich.

"STANDARD" OR "UNIFORM" COST SHEET FOR DIVISION OF EX-PENSES IN GOLF COURSE GREENS KEEPING

The value of some "standard" or "uniform" division of expenses which enter into the maintenance of Golf courses lies in the comparison of costs which can be made between clubs, with the object of reducing waste, in the simplifying of budgeting, the check-up which can be made from time to time during the season and the ready comparison which can be made at end of season between the estimated budget and the actual cost. It is necessary to have these divisions as sharply defined as possible, in order to have no uncertainty as to just which department each item of expense should be charged.

As an example: The dividing line between "maintenance" and "construction" leaves possibility of a wide range of opinion and uncertainty. True, some construction work can be done in spare time, but if uniformity is desired a very sharp line must be drawn between the two. If financial conditions make necessary to curtail expenses, this would make a very definite place where a budget could be cut.

The system outlined here is not claimed to be perfect, other departments and sub-divisions may prove desirable, but it would be worth while trying out the sheet in its present form for a season until changes have proven desirable.

All bills, before forwarding to Club bookkeeper, should be plainly marked which department they are to be charged to.

For the lack of any other definition "greens" are assumed to cover everything on the club property, with exception of the club house.

Tennis Courts, Miniature Golf Courses and other expenses in connection with sports should be kept in an account seperate from this sheet.

MAINTENANCE

Such labor and supervision as will take care of the actual upkeep, in first class condition, of greens, traps, bunkers, fairways, grounds, roads, fences, buildings, etc., without any changes whatever.

SUPPLIES: Nails, paint, wire, lumber, towels, laundry, flags and other items necessary for maintenance, but not tools.

SEED-FERTILIZER: Such as is required for the growth and upkeep of grass, any extraordinary supply such as seeding or fertilizing fairways, should be charged to construction.

SAND AND SOIL: Just such as is necessary for traps, etc., and for compost. LAWN AND GARDEN: Mowing and tending lawn, garden and shrubbery adjacent to Club House.

MISCELLANEOUS: Items not classified above

CONSTRUCTION

Labor and material necessary on remodeling greens, traps, new roadways, landscaping, planting trees, sodding or replanting greens, seeding or fertilizing entire fairways, etc.

EQUIPMENT

NEW EQUIPMENT: Mowers, tractors, plows, sprinklers, hose, etc.

REPAIRS: Repairing equipment, grinding, replacing parts, etc.

RENEWALS: Rakes, hoes, brooms, brushes and other items in the way of small tools.

MOTIVE POWER

Gasoline, oil, hay, straw, feed, harness, veterinary, etc.

WATER SYSTEM

Electricity (if not used to any great extent on other than water system, it may not be practical to separate).

MAINTENANCE: Labor and material necessary in keeping system in good working condition.

product of Mr. Aston's several years of experience. The front of the sheet, shown at the left, is ruled to contain the cost record, while on the back of the sheet, shown at the right, definitions are furnished of the items included. Its size is 8½ by 14 inches.

Cost Accounting at Sunset Hill Country Club

By Eberhard Anheuser, St. Louis, Mo.

We do not keep a detailed cost accounting system at Sunset Hill. By that I mean we do not figure what it costs to cut our greens, to apply different forms of fertilizer, nor to apply various mercuric compounds for the treatment of brown-patch. We do, however, keep an account of the number of men employed, showing also their salaries, which we charge under the heading "maintenance-of-grounds labor." We also have an account showing maintenance-of-grounds expenses, which includes all items pertaining to the purchase of seed, fertilizer, various mercuric compounds, and other materials and supplies. These two accounts give us a comparative record of maintenance costs from month to month and year to year.

In addition, our greenkeeper makes out a daily work sheet covering the following items: top-dressings, application of fertilizers or mercuric compounds, and number of greens weeded. We also have a card for every green and for our nursery, to which this information is posted. Formerly we had the greenkeeper report also on cutting approaches, changing holes, changing markers, cutting greens, cutting fairways, cutting the rough in fairways, cutting the banks of greens, and sprinkling greens; but we have done away with keeping these records, as it takes too much of the greenkeeper's time and is a matter of regular routine work and really is of no benefit unless the chairman of the green committee is on the job to see that the work has been done.

I do not believe in keeping a detailed cost account of the money spent in cutting greens or in any of the regular maintenance work. Such work is the particular duty of the greenkeeper's men. Too much of the greenkeeper's time is lost in keeping such records, and to engage a clerk for the purpose would entail an additional expense. The greenkeeper must be on the job all the time to take care of any trouble that may arise and to see that the work is being done by his men in a satisfactory manner. Detailed reports can be satisfactorily made only when the chairman of the green committee is in active charge of his work and keeps in close touch with his men.

Minimum size for putting green.—On holes where the green is normally approached by a short pitch shot, a diameter of 60 feet may not be too small for the green in case it is fairly flat and not too severely trapped. The average diameter of present-day putting greens, however, seems to be closer to 75 or 80 feet.

Cost Accounting in the Detroit District Golf Association By R. H. Montgomery, Dearborn, Mich.

In the Detroit district we are struggling to get the forty-odd clubs under a similar system of accounting, but it is a difficult job, as some of the clubs have no bookkeeping system while others have their affairs handled by trust companies or outside bookkeepers.

Our labor cost record at the Hawthorne Valley Golf Club, at Dearborn, is based on weekly pay cards made out daily by the men them-

selves, a copy of which is shown herewith. Each man accounts to us daily for his time as divided among his various jobs. The headings at the top of the card may vary during the season, but the intention is to keep the accounting of all the men the same. The divisions into which the various classes of work fall change with the seasons. During March and April, for example, there is no work on the greens, and the time is spent on such work as cleaning and sodding. When, however, the men resume their regular work, the cards come back marked with the same divisions. Then in the fall it is necessary to change the work again. By using the seven "divisions," as indicated on the card, we find we can get an accounting of all our work as the seasons pass. In other words, to enter on the card headings covering all the jobs of a place like this, would require a sheet too large for the men to handle.

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Time card in use at Hawthorne Valley Golf Club, Dearborn, Mich. The card is 6 by 3% inches. A card is carried by each workman. On it he reports for each day the number of hours engaged on the various "divisions" of the maintenance work. The card is punched for use in a loose-leaf binder.

In addition to this item of labor cost, our upkeep expense includes the items of power, equipment, grounds upkeep (roads and bridges), fertilizer, gas and oil, repairs, and miscellaneous.

Mr. Aston, of the Meadowbrook Club, who is a cost accountant, has devised a form * for a "greens cost sheet," to be used monthly for purposes of comparison. We are going to have something of this sort standardized in the Detroit district.

We also have in the district a yearly cost report form, or questionnaire, which is illustrated herewith. This is used for the purpose of comparing annual expenses. Where we find a club whose yearly figures are low we try to bolster them up, while if they are high we try to reduce them. A year or two ago the yearly totals varied from \$5,500 to \$25,000 for 18-hole courses. We are trying

^{*}Mr. Aston's "greens cost sheet" form is illustrated on pages 98 and 99 of the current number of The Bulletin.

DETROIT DISTRICT GOLF ASSOCIATION GREEN SECTION

Rep	ort of	e of Club)			for 1	penod from	to	
	This for able con primari between	rem has been adopted for making mparisons there must be unifor by concerned in costs of mainten maintenance and construction	rmity, therefore, enance only, but i work, we ask t	we mu- since si hat yo	st ne here u re:	intaining golf courses in this thisti costarily ask all clubs for the same exists a wide range of opinions all our definition no that we make for to the corresponding instruction	ne information. We as to the dividing l nay all be guided ali	are inc ke.
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9	It he does, it the a	ogregate cost included in stem				part there might be included in tion 22.	item of Ques-	1 1
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Dec	d b					***************************************	Chairman, Gre	ens Committee.

Page 2 of questionnaire.

Yearly cost questionnarie used by clubs of the Detroit District Golf Association. The questionnaire is a four-page folder, size 11 by 8½ inches. The club's figures are entered on the second page of

to get all the clubs on a basis of about \$12,500, which we find is about all it should cost to maintain a course in very good condition.

For ourselves we find the weekly pay card is ample for the purpose; it is very simple and yet tells the whole story.

My experience is that in golf, as in any industry, one should have accounting. It is necessary chiefly from the standpoint of making

INSTRUCTIONS

It was necessary in propulars this form to establish some basis. It is not a matter of accounting as to whether or not we have properly classified the various stems. What is needed is that we should all answer the questions in the same way for comparative purposes only. We are aware that there is a difference in what might be seemed as standard upkeep. Some clubs with hartel funds might cuttail operations after the budget allowance has been exhausted, while others might make much larger uppropriations demanding the best. This will be considered in our final analysis.

. . .

- What does your total investment in equipment represent in dollars and cents? Taking the original cost of the following items (not barns or outlying buildings): Tools, Implements: Hoises, Pumps, Harness, Wagons, Tractors, Mowers, Plows, Sprinklers, Hose, etc. Do not include items purchased for the current period, this you are to answer on Question 19
- 21. State the amount paid your Greenskeeper including bonus if he receives one, but not any amount that he may receive in participation of donations such as a Christmas Fund. It is assumed that in all clubs the Greenskeeper's duties are confined to golf course maintenance only. However, in the event that his duties are divided with other functions not pertaining thereto, you may deduct such part. You must also include cost of Room. Board or Both as referred to in Questions 3 and 9.
- 22. State the total amount, paid for labor employed by club, regardless of capacity or nature of work as long as it is connected with some function of animatisming the courses or its equipment. This does not apply to labor that you would pay in connection with repairs to equipment tractors or any term of work that call for specialists other than your own men, in which case such labors it to be included under tilt respective heading.
- For instance if you send a tractor to be repaired there will be labor charges as well as parts, include both under Quetion 25, etc., but if one of your own men inside the repairs, only the item of parts is to be included.
- 23. State the total amount spent for small stems such as nails, paints, general hardware, lumber, towels and many other small stems
- 24. State the total amount spent for maintaining horses, including feed, horse-shoeing veterinary, etc... Also what did it cost to repair or replace harness and wagons. (See instructions under cenewals No. 26.)
- 25 State total amount for gas and oil, repair; parts renewals etc. (See instructions No. 26.)
- 26. Repairs and renewals to all of your equipment excepting horses harness wagons and tractors as they are included in their expective classification, namely, 24 and 25. As an example, you have one reactor now represented in Question 13 and it becomes necessary to replace it. Charge the new one again to Question 15 on your books but take out by journal entry the cost of the first one less trade allowance given or each realized on it, charging same to liten 25. This same rule must apply to any other item.
- 27. SEEOS, FERTILIZERS. Do not include the amount purchased as it might include part of which is stored away for future use. State only the actual amount used. Sand and soil is not-construed as being a fertilizer as you will note it is the heading following
- 23. State the actual amount of sand and soil that you purchased and used. Do not place a valuation on sand or toil that you had on your own property and used for which no money was pasd, excepting your own labor to haul it already covered in free 22
- 29. If you used city water, how much was it? If your supply of water comes from river or other source for which no charge is made then your answer is --0--
- 30. What did it cost you for electric power for pumping? Do not include any repairs or replacement of pumps, this is to be included in Question 26
- [31. Membership in U.S. G. A. and Greens Section of U.S. G. A., printing traveling expenses advisory fees and any item not already classified. Should this amount exceed \$500.00 you are to submit a separate detail whedule
- 32. CONSTRUCTION. What items constitute construction work and a legitimate diduction from the year s expenditures is a subject on which you would receive very varied opinions. This is one item if no; clearly explained, that might affect our comparisons, so for this reason we have provided a space where you are to state briefly the nature of the work.

We construe the meaning of construction work as representing work that is not the regular routine of maintenance such as changing location of teo bunkers or rebuilding greens beautifying the course or major re-planning of some particular hole from the teo to the green improvements, such as fences, planting trees landsgaping advisory feet, surreying, underground installations of drainage, water expenses.

The stems under this heading will be a deduction from your cost of maintenance, honce be as explicit as the space allowed permits

Page 3 of questionnaire.

the folder, containing the questionnarie proper, while the third page contains explanatory instructions for making out the report. The title page is not shown. The last page is blank.

comparisons, first, to find out why costs are increasing, and second, to learn if money can be saved. Furthermore, it is a check on the individual men. By keeping these records I find we have been able to reduce our upkeep expense from nearly \$30,000 to \$22,500 a year for two 18-hole courses; and I believe it is generally recognized that our upkeep is as good as any. All this is in spite of the fact that we played to a little over 136,000 rounds of golf last season.

Annual Greenkeepers' Convention

As announced in the last number of THE BULLETIN, the annual greenkeepers' convention of the United States Golf Association Green Section will be held at Atlantic City June 4 and 5. Mr. H. K. Read, of the Country Club of Atlantic City, has extended an invitation of his club for the meeting to be held there on June 4, and he has received a similar invitation from the officials of Pine Valley Golf Club for a visit to that famous course on June 5.

On Monday morning, June 4, the course will be open to play for all greenkeepers and green committee chairmen. Mr. Read is planning to conduct a special tournament, and all are urged to avail themselves of this opportunity to determine for themselves the full meaning of Atlantic City Country Club's extensive display of sand. After lunch the visitors will assemble and be shown about the course. Mr. Read will explain the numerous interesting features in construction, the elaborate water system, sewage disposal system, and the numerous problems met with on his course. One of the new Green Section experimental plantings will also be shown and explained during the afternoon. Dinner will be served at the club and will be followed by an informal discussion, which will be open to all.

Tuesday morning we shall meet at Atlantic City and go from there to Pine Valley. A general inspection of the course is planned, and ample opportunity will be provided to gain some appreciation of the beauties of Pine Valley and to learn something of the specific problems that must be faced in such a location.

On Wednesday there will be an informal meeting at the Arlington Turf Garden, near Washington. Our Green Section staff will be at the garden all day to explain any phase of the experimental work being conducted there.

If anyone is unable to attend the meetings on all three days he will be welcome at any one of the three meetings he wishes to attend.

To aid the staff of the Country Club of Atlantic City in making preparations, we request all who plan to be present at the dinner on the evening of June 4 to notify the Green Section office as soon as possible.

Pine Valley is located on the Reading Railroad. Through tickets should be purchased accordingly.

The Factor of Unfairness in Compairing Maintenance Costs

By Spencer M. Duty, Canterbury Golf Club, Cleveland

For some time figures on golf course maintenance in the Cleveland district have been published, and there is no doubt that a considerable effort has been made to have them accurate. It happens, however, that the club of which I am green committee chairman has the highest, or nearly the highest, maintenance cost, per hole, among the clubs in the association. A comparison with the detailed figures of at least one club shows that to a large extent differences in accounting practices is responsible for differences in the comparative cost figures, there being no uniformity in handling certain general expenses. Furthermore, our higher relative cost is also due, in part,

to the desire of our members to bring the course up to a higher standard, which naturally entails greater expenditures.

It is apparent from Mr. Rockefeller's article in the March BULLE-TIN that he has a fear of standardized accounting, and, it would seem, with very good reason, because it is impossible to bring out in comparative figures the many varying factors and give a really fair result. Not only are accounting practices among golf clubs widely different, but there is and can be no standard of maintenance. The degree of maintenance is dependent on the wishes of the members and their willingness to pay. Even if we had uniformity in accounting practices and standards of maintenance, local conditions and physical characteristics of courses moreover make comparative figures of doubtful value. Surely we do not want our courses identical any more than we want 18 holes all alike.

The question is not how much is spent on maintenance—that is the concern of each individual club—but rather how well the money is spent. Thanks to the Green Section and the efforts of the green-keepers' associations, great progress has been made in methods used. Cheap maintenance is not of necessity economical maintenance; it may be, and generally is, expensive in the long run. But it is very easy to get the issue confused in the mind of the average member, who knows little about the subject, and bring about a demand for what is regarded as economy but what really is a demand for a starvation policy. Some time ago the greenkeeper of a neighboring club made a most pertinent statement. He said he had come to the conclusion that when a club started a policy of so-called economy it was time for the greenkeeper to quit. In time he would lose his job anyhow; but if he tried to hang on he would lose his reputation as well.

Frankly, my sympathies are with the greenkeepers. As a body they are doing their utmost. They have shown a most remarkable desire to improve their methods and a willingness to apply the results of research. I most certainly do not think they should be harassed with unfair comparisons or subjected to what may assume the

aspects of a "senatorial investigation."

Bent stolons may be planted at any time during the growing season provided they are kept moist by frequent watering. Late summer is, however, the best season for planting, as trouble from weeds and from hot, dry weather is then at a minimum.

Brown-Patch Experiments and Notations Made at Kittansett Club, Marion, Mass., During Season of 1927

By A. B. Porter

For several seasons at Kittansett observations on brown-patch showed that generally the attacks occurred regularly on certain greens year after year and just as regularly did not occur on others. This was one of the reasons why the following experiments were conducted during the season of 1927.

The brown-patch referred to in this article is the large brownpatch that varies in size from 4 inches to 18 inches in diameter and not the small or "dollar spot." This latter type is not common in

Massachusetts and has never occurred at Kittansett.

Before the beginning of the brown-patch season, which generally starts the last week of June, we obtained various kinds of remedies to have on hand when the first humid and hot weather made its appearance. The materials which were obtained consisted of the following: Calogreen, calomel, Nugreen, Uspulun, Semesan, and corrosive sublimate. We also obtained a good maximum and minimum direct-reading thermometer and a hygrometer (an instrument for determining the humidity of the air).

Every one in this section of the country will remember the quantity of rain we had during the entire summer. It was not until July 9 that any brown-patch weather arrived to worry us to any extent. On that day we treated our No. 4 green which, in previous years, had been subject to severe cases of the disease. This green is in a position where it is not exposed to the prevailing winds from the southwest, being surrounded on three sides by dense woods. It also is quite low, being just above the level of the salt water marsh across which the drive is made on this hole. This fact, plus the lack of air movement around and over the green, seems to be the reason and only reason why this green was affected before most of the others.

The method employed was to divide the green into quarters, treating one quarter each with Semesan, Uspulun. and Calogreen, leaving a quarter untreated as a check. It is interesting to note that on the day following the application No. 5 tee, within 15 feet of this green, where the grass on the tee was quite long and lush due to so much heavy rain, was visited by a very heavy attack of brown-patch, while not even the untreated quarter of the green showed any sign of an attack. It was not until July 18, after several days of damp, muggy weather that the untreated quarter of the green showed any signs of brown-patch, and then only traces of it. On July 20, however, the untreated quarter was severely attacked, and slight traces occurred on the other three quarters, showing that under these conditions of rainy weather any treatment lost its effectiveness after ten days. All three of the preventives, apparently had the same effect for the same length of time.

No. 15 green had always suffered in past years, and beginning July 13 it was given similar treatment. One section was treated with Calogreen and another with Uspulun, with a check strip left untreated. Practically the same results were observed as on No. 4 green with the same conditions. This green also is protected from the prevailing southwest wind and is also low, in relation to the surrounding land. This green was not constructed with the same care as the others with regard to drainage, and this undoubtedly helped to maintain a damp condition over the green.

Some of the other greens, of course, were subject to attacks but in every case it seemed to point to the lack of air circulation or low ground. The 1st, 2nd, 16th and 17th greens were all exposed to the open sea breezes and none had even the slightest trace of brown-ratch, even though no preventive chemical whatsoever was used during the entire summer.

The other preventives mentioned above were all used in comparison with each other, and so far as our observations showed, no one material was better or lasted longer than another, it being simply a question of the initial cost, the fertilizing and curing qualities in each that would determine the best and cheapest product in the long run.

Other chemicals were used and tried other than these mentioned but the results were not sufficiently positive to mention them until we have tested them again.

Our temperature and humidity readings showed that in every case it was necessary to have both a temperature of over 74 degrees and a humidity of over 86 degrees in order to have an attack of brown-patch that was noticeable. Had there not been so much rain during the entire summer, we were planning to have used less water and sulfate of ammonia on our greens in order to check the growth of the young shoots of grass that are more tender and more subject to the disease. With so much rain, our "drying up" policy could not be carried out. In fact, no sprinkler was used on any of our greens from about June 20 to the end of the summer.

Kelp and other seaweeds as compost ingredients.—Seacoast golf courses frequently have available an abundant supply of seaweeds for use in compost piles. As a rule these plants should be as valuable for composting purposes, as are the forms of organic material most commonly available to inland courses, such as leaves, grass clippings, mushroom soil, and manure. One of the most abundant of these seaweeds is kelp, which, on account of its relatively high potash content, is of value in the manufacture of potash fertilizers. On certain soils applications of potash tend to promote the growth of goosegrass and other weeds. Therefore, if the continued use of large quantities of kelp as a compost ingredient is contemplated, the matter of its potash content should not be lost sight of, as unsatisfactory results may follow. In any case it will be desirable to improve the compost with some fertilizer with a high nitrogen content.

Minimum depth of top soil for bent greens.—Four inches of good top soil is sufficient for creeping bent, provided the base is free from large stones and roots that might interfere with changing the cup. It is not necessary to sift the soil for this purpose, as the stones or roots can readily be raked out after the soil is evenly spread on the greens.

As Others See Us

"It is only necessary to read the very adequate reports of the Unites States Golf Association on the research and the results achieved by their greenkeeping section to recognize how far behind we are in this country in the direction of coordinated knowledge in all that affects good greenkeeping. It is some years since the Royal and Ancient appointed a scientific committee, but until now the golf clubs have heard nothing more of the work of that committee. Something is to be done, however, in conjunction with the Golfing Unions, and there is no direction in golf where joint action should be more fruitful of benefit to the game than well-informed experience on the result of greenkeeping experiments." Golf Monthly, Edinburgh, Scotland, March, 1928.

AS WE FIND THEM

Glancing through advertisements of golf course equipment and materials, it is quite apparent that most advertisers are out for legitimate business and "shooting straight."

On the other hand, some of them certainly must think that, compared with the stock market "suckers," greenkeepers and others handling golf course funds are easy marks.

In advertising, apparently, if a product will not get across on its own merits the trick is to knock the rest of the world—particularly any organization that will expose your game.

How those fellows like to take a crack at old Uncle Sam's Department of Agriculture! It always reminds us of a Pekinese pup barking at an elephant.

One fellow wants the golf clubs to follow the advice of a "practical farmer" instead of the "swivel-chair expert."

For the benefit of golf course officials it might be asked, "In what way does the practical farmer's exalted seat on a sulky plow or on a load of hay better qualify him as an expert on fine turf than does that much maligned swivel chair?"

Even though they lose no opportunity to slander the United States Department of Agriculture and the United States Golf Association, isn't it amazing how those same fellows do everything they dare do in quoting from publications emanating from those despised sources? If they can trace some previous connection with either, how willingly they stoop to recognize it!

If politicians availed themselves of the logic used by some advertisers one might expect a certain mayor conducting a private "war" with Great Britain to advertise that he or his ancestors, at least, once served in the court of St. James.

When one reads certain elaborate claims of extensive use of some products he questions whether this is actually due to real merit or merely a tribute to modern advertising methods and American gullibility.

How advertisers do like to work on the human-interest psychological complex and quote from the letters of "satisfied customers!"

Probably if there were any money to be gained in exploiting some particular body of water, the controlling company would soon quote from some big fish to the effect, "In my many years of experience I have swum through practically every part of the ocean, but since swimming through your 'excelsior brand' of sea water I have decided that it is far superior and much more economical to swim through than any other water in the big pond. Hereafter I shall use none other."