Hundredsof thousands of players would not be without it. Over 3,000 clubs in 16 countries use it. It is indispensable to the fullest enjoyment of golf and to golfing morale. Fulname marking enables strict adherence to the rule against lifting a ball in play; it settles the question of ball ownership, in play or when lost; it saves every golfer money spent to replace lost balls and, above all, it puts an end to one of the most un- sportsmanlike, dishonesty-breeding practices that ever crept into a national pastime—golf ball bootlegging by caddies. Fulname marking is imperishably permanent; many millions of markings have been made without any reported case of injury to the ball. It is adequate, unquestionable—the one logical method of golf ball marking.

Pros—

You can repeat the above message to your players and open up a source of splendid profit.

Club Officials

You can make a better club by adopting a club policy based on Fulname marking.

Write today for particulars of our Free Marking Machine Proposition.

THE FULNAME CO.

You Start It it does the rest

Hol-Hi will never let you down

A golf ball with unfailing response. Far flying with deadly accuracy. Thousands of users will tell you so. Built for the man who demands distance. Its long carry will delight you. That so much durability can be put in so long a ball will amaze you. Stock Hol-Hi. It will give your members a chance to endorse your good judgment with repeat orders.
What We Did to Get Our Course Watered Right

By HERBERT W. HALL
Manager, Country Club of Detroit

WHEN GOLFDOM asked me to write on golf course water systems for the purpose of giving pointers and advice to other clubs contemplating such an installation, I debated quite at length in my mind as to the best suggestion that I could offer, and finally arrived at the following conclusion:

Any club considering the installation of a golf course watering system could get its installation much more economically and would have a much more efficient system by employing the services of a competent golf course water system engineer. There are several such men in this country and they will save their fees many times over by figuring accurately the correct sizes of piping required to furnish the necessary volume of water at the proper pressure at the points of distribution and in addition there is the feature which can not be figured in dollars and cents, of knowing definitely in advance that the system will work properly when completed. We selected Wendell P. Miller and were more than pleased with his work.

At the Country Club we had three sources of water supply available: First, Lake St. Clair, upon which our property fronts; second, the local village supply with a maximum pressure of 35 pounds (both of these would have required a booster pump in order to obtain the necessary pressure at the outlets); third, a high pressure system which runs by our property to supply a distant community. The water in the latter system is always kept at about 90 pounds pressure and would not have required a pump installation. We decided upon the latter source, and Mr. Miller designed our layout accordingly. Then after our pipe had been ordered and construction work had started, a political situation developed that compelled us to give up this choice. As our plans had progressed too far for us to change to the lake for our water, we were compelled to purchase it from the village, which was the costliest of all three sources.

No Dead Ends

The village water is fairly soft and comes to our pump house through an eight inch main at approximately 35 pounds pressure. It is then taken up by our 500 gallon per minute pump, which is driven by an electric motor, and boosted to a pressure of 100 pounds, which is the most satisfactory working pressure, as the water coming from the sprinkler nozzles gets good wide distribution and in addition is broken into a fine penetrating spray. The water leaves the pumping plant in two six-inch mains and from these branch off four-inch mains that carry the water to the outlets leading to the fairways, greens and tees. The whole system is laid out in a series of loops, in
"Beautiful Turf from Tee to Green"

For Your Fall Work, whether in connection with renovating or new construction, late summer or early fall (Aug. 15th to Oct. 1st) is by all odds the best time to sow seed.

For Early Fall Sowing, We Offer

**Grass Seed**

of Known Quality

**Tested for Purity and Germination**

South German Bent

Colonial Bent Bent Stolons

Rhode Island Bent

Prices on the above, or any other turf producing grasses, such as Fancy Red Top, Kentucky Blue, Chewing's N. Z. Fescue, Sheep's Fescue, Bermuda Grass, etc., upon request.

**Cocos Bent**—Use it on new greens or work it into existing greens, or wherever a fine and enduring turf is desired.

- Per lb. $2.50, per 10 lbs. $22.50, per 100 lbs. $200.00

**Special Bent Formula**

For Putting Greens

consists of imported and domestic grass seeds of the highest quality, that will produce a fine, uniform and enduring turf.

10 lbs. $5.00, 100 lbs. $70.00

**Supreme Fairway Formula**

in addition to Bent Seed, contains Kentucky Blue Grass, Supreme Red Top and Chewing's N. Z. Fescue.

25 lbs. $13.00, 100 lbs. $50.00

**Other Special Formulas upon request**

**Remember:** All our seeds are of the highest quality, obtained direct from the most reliable sources of supply and are botanically true to name. All seeds are new and are cleaned and recounts until they are brought up to the highest possible state of purity and germination, special care being given to elimination of weed seeds.

Without obligation we shall be pleased to send a representative who, from long experience, is qualified to advise regarding grasses and furnish such other information as is necessary for the best results.

**Granby Mfg. Co., Inc.**

Keene, N. H.

Please mention GOLFDOM when writing advertisers
other words there are no dead ends. There are several reasons for this. In the first place dead ends tend toward the accumulation of whatever dirt gets into the system, and second, with the loop plan the water comes simultaneously through several lines to whichever outlet is being used and consequently a greater volume and pressure can be secured with a smaller size pipe. Our main distribution system is six-inch and four-inch cast iron pipe. Those sections which are kept alive the year around are laid at least five feet deep, and the balance about a two-foot depth. The pipe leading to the individual sprinkling outfits themselves is two-inch and one and one-half inch galvanized iron.

Our fairways are watered from fixed outlets by means of portable sprinklers. The piping layout is an adaptation of the Buckner California hoseless system to eastern needs, with all the fairway area from 125 yards in front of the tee to the green being served by the fixed sprinkler outlets. The outlets are placed in two rows, through the fairway on a triangular plane, all outlets being 80 feet apart. Our fairway outlets are laid out in batteries of five to seven each, according to the slope and size of the fairways, with the valves placed close to the distribution mains at the edge of the fairways. We installed unions at all valves so that in case of repairs becoming necessary the valves can be easily removed without cutting the pipe.

Outlets at Greens and Tees

The outlets of the greens are at the back slope and the water is carried to the sprinklers through one-inch hose. We originally installed sled type sprinklers on our greens but we found that the green surface was marred in moving them during sprinkling so we changed to a sprinkler with a roller base which has proven very satisfactory. The outlet at the tees are in the center of the tee and although our tees vary greatly in size, the proper distribution is obtained by adjusting the valve so that the pressure at the sprinkler is just sufficient to throw the water to the far corners of the tee. All of our outlets are of the quick coupling clamp type and are far superior to the old screw connections both in time saved and ease of operation. Our sprinklers are Golf King Number Six.

Our greens and tees are watered every day except when it rains and our fairways are done whenever they start to get dry. We water in the late afternoon and early evening. This is done for several reasons. First, it causes less interference with the play; second, the evaporation is much less when the sun is going down and consequently a greater percentage of the water soaks in and serves the proper purpose. The saving on this score is quite material when watering fairways; lastly, there are some grasses which sunburn when water is applied in the middle of the day due to the magnifying effect of the globules of water on the individual grass blades.

Our system has been in use for two years and has worked out most satisfactorily and we have found it unnecessary to make any changes whatever. We always have plenty of water at the proper pressure, even at the most distant outlets. This is in favorable contrast to our old system where the water would barely trickle out of the sprinklers on some of the far greens.

In conclusion let me repeat, get expert advice on the design of your system and do not be deluded into adopting the plans of some amateur who thinks he knows what is required.

"No Free Tees" Policy Works O. K.

L. GERSON, green chairman of the Oakwood Golf club (Cleveland district), cites that club's experience with the free tee proposition in a letter to Wm. Lowell, jr., to furnish evidence that sand may be dispensed with at the tees without the club going to the expense of furnishing free tees to the members.

Gerson tells Lowell:

"We decided to eliminate the tee boxes and further decided not to supply the members with tees gratis.

"We are very glad that we did so, as we find that the whole proposition works out very well. The members are purchasing their tees, and we haven't had a single complaint. We have saved the labor of placing the sand and water in the tee boxes together with repairs and painting.

"We are very much pleased with the whole situation."
"Let's play our next foursome at . . . . .

it's the answer to the golfer's prayer"

Although tees like English lawns—broad and perfect fairways—and greens like velvet carpets—may seem to be an answer to the golfer's prayer — Greens Chairman know too well that such things do not just happen—to the contrary, such courses are the consequence of a discriminating forethought in the selection of seed that assures definite results. That is why 897 Greens Chairman choose Scott's Seed—for with it comes positive assurance that they have sowed the best. Nothing is left to chance.

Let the sporting chance be confined to the game of golf itself—but in your seed selection—play safe with Scott's. May we quote you?

O. M. SCOTT & SONS CO.
Marysville, Ohio
Golf Course and Lawn Seed

Is your course handicapped by broken drains?

GOOD playing condition of your golf course depends on proper drainage of greens, sandtraps and fairways. Excess water should be removed as rapidly as it falls.

Drainage engineers have found Armco perforated iron pipe gives lasting service under the most severe conditions. Tough, flexible, strong—heavy rollers will not break it; frost will not crack it; shifting and heaving soils cannot disjoin it. It stays put.

Complete information on the application of this better pipe to golf course drainage on request.

Armco Culvert Manufacturers Association
Middletown, Ohio

ARMCO perforated PIPE

Please mention GOLFDOM when writing advertisers
Here is a Good Example of Remodeling an Existing Building Into One Suitable for Clubhouse Use. Wings Have Been Built on the Original Structure Without Destroying Unity. Knollwood Country Club, Lake Forest, Ill.

Fire Him? NO!

Better Appraise the Kicks on the Greenkeeper’s Work

By LAWRENCE S. DICKINSON

Massachusetts Agricultural College

I had just finished a good round of golf. It was a fine foursome, evenly matched, jolly, all “broke a hundred”; a good score for us. No one had lost any money, none had been bet, and only a reasonable number of balls were lost. We had had REAL FUN.

While resting a while on the veranda of the club house a number of players went by me, and the pro was conspicuously audible. During the twenty minutes I sat there I heard the phrase, “Get a new greenkeeper,” twelve times, four by the pro.

The greenkeeper seemed to me to be an able, honest, very hard working man of the type that makes greenkeeping a profession. The phrase, “Get a new greenkeeper,” worried me, for I knew he was a whole lot better than any one we could get, even if we paid a much larger salary.

In disgust I left the piazza and went to the locker-room, then to the club room. The phrase, “Get a new greenkeeper,” was repeated several times in each place. And the whole golf course, according to the vociferous “crabs” had already gone to such rack and ruin that it ought to be cut up into building lots.

As the “crabs” came in I wrote their names on a pad, adding my piazza friends to the list. With the list of “crabs,” my knowledge of the club affairs, the greenkeeper, and turf, as basic data I began to make a study of the situation. The time was the last week of July. (The episode was repeated in early September) the season had been wet, the days were hot and the humidity high. The results of this study follow:

Analyzes the Kicks

The first name on the list was John A. Lawyer—big, husky chap, college football hero, past chairman of the Green Committee. John’s particular complaint that day was of the fairways. Grass was too long,
Turf!

On fairway and putting green the turf depends on soil, seed, fertilizer and care.

We can't provide the soil, or the care, but we DO provide grass seed, fertilizer, and chemicals that will produce the smoothest, closest, toughest turf on any soil, and with the least care.

We've been at it since 1895. Write for particulars. Corneli Seed Co., St. Louis, Mo.

Prevent Worm Casts—
Improve Your Greens

“We used your "ELECTRIC" Worm Eradicator on our 18th green where we had trouble and it worked well. There were no casts. We got through with the Western Championship without a hitch. The greens were splendid after taking out the worms with your Worm Eradicator.”—David Foulis, Professional, HINSDALE GOLF CLUB, Hinsdale, Ill.

"ELECTRIC" stimulates and fertilizes the turf while preventing worm casts. It also safeguards the turf from "brown patch" and discourages weed growth. Used by more than 500 clubs.

Each gallon of "ELECTRIC" Worm Eradicator can be diluted with 250 gallons of water—enough to cover 3,000 square feet. Two gallons will treat an average green.

Price, $3 a gallon; shipped in 5, 10, 15 and 50-gallon containers. We supply gratis a measure and glass jugs for handling the ERADICATOR.

50-Gallon Sprinkling Cart, shown above, supplied at cost price, $35.00, with orders for 10 gallons or more of the Eradicator.

Shipments made on approval.
Free Folder mailed on request.

Reade Manufacturing Co.
Established 1883
165 Hoboken Ave. Jersey City, N. J.

Please mention GOLFDOM when writing advertisers
had been so all the season. “Get a new greenkeeper.” Now I know that John drives a low ball, depending upon the roll for distance. His opponent was “hitting them high” and making 25 or more yards better than John on a drive. John lost the match and thoughtlessly charged it to the greenkeeper because of the tall grass. The greenkeeper has only one tractor, that badly worn; five cutting units, two of them as reserve units. It had rained hard at least four times a week since early May. The grass has grown very thick and very fast, necessitating fairway mowing twice a week everywhere, and in some places three times. The tournament committee has had three big matches, each of three days’ duration, and after 2:30 p.m. the traffic is too thick to permit mowing, all of which is to be done with one unreliable three-unit tractor mower. John’s local prestige, size and voice have much influence in the club’s affairs. “Get a new Greenkeeper?”—NO! another tractor.

Number two on the pad was “Scotty,” the pro. “Get a new greenkeeper and get him quick.” “Scotty” had played a match with a visiting pro and lost twenty-five dollars. His excuses were interesting and all aimed at the greenkeeper. The prize one was this: “The old nine holes have seeded greens and the new nine holes have stolon greens.” The sixty per cent of the members who play golf for fun think those stolon greens are wonderful. They are well kept, clean, and a putt runs very true. “Scotty” lost on those stolon greens because there were “no weeds or patches to line up my putts with.” Can you beat that? That was only one reason why “Scotty” wanted a new greenkeeper. “Scotty” has a number of hero worshipers and his morale is contagious.

Unfair Comparison

The third man on the list was Thomas Playabout. Always comparing our course with Blank course. Tom lost his match because his driving had been off. “It’s the tees. I can’t get a good stance; markers are not changed often enough, why at Blank course they have wonderful tees, their greenkeeper sure knows how to take care of them. Drove a lot better up there yesterday.”

Yesterday Tom had had an easy day at the office. The tees at the Blank course are all elevated and large. Our tees are the new style tee, flat. Tom feels better driving off of a mound, and our tees are worn more than the Blank tees because our traffic is five times as great as theirs. Tom also had a bad day at the office. “Stenographer sick and couldn’t find anything.” Fire the greenkeeper on the strength of Tom’s argument. NO! Yet, Tom’s comparisons have their effect.

There ought to be a twenty-five dollar fine imposed upon all golfers who criticize one course when comparing it with another, and ten dollars for even making a comparison. If one must make comparisons, compare your own course as it is, with what it was, but make this comparison after taking into consideration weather, traffic, and money expended, and then see if you need “a new greenkeeper.” Usually the answer is “NO,” give him more pay.

Damned If They Do or Don’t

Skipping a few names I came to Herman A. Crank, a college professor (dead languages), who concentrates one minute before each stroke. I felt a bit sorry for Herman because he lost his match on the eleventh fairway. Herman was concentrating on a brassie shot. The tractor was “put, putting” very regularly 70 yards off to the side. The tractor driver, seeing Herman trying to play, courteously, as he thought, stopped the engine just as the stroke was about to be made. “The cessation of that ‘put, put,’ caused me to lose my stance and mental stability, and I flubbed the shot. The confounded greenkeeper ought to be fired for permitting his men to do things like that.” (The next player would have kicked if the tractor had not stopped.) “I think it was that foolish workman on the sixth that made me go into the rough,” says Fred. “Bill thinks of a similar case and so it goes.” “Get a new greenkeeper?” NO! not because his men try to be courteous, or sometimes fail to do what is psychologically correct.

Golfers, do you realize the amount of labor time you cause to be wasted by holding the workmen while you play? You pay for it in money, and do not feel it. The greenkeeper pays for it in results and feels it very heavily.

Rough on the Rough

The fifth name I selected from the list was Alla Bye. Alla had just finished an important match with Samuel Slicer. Alla lost because the rough on the 12th, 14th, and 16th holes “was too good.” Almost like a fairway; “greenkeeper ought to
know enough to let it be rough." You see, Slicer was able to win these three holes, because the rough didn’t handicap him. A very pertinent question arises. Should the rough be alike as far as possible on all holes? Of course not. As a matter of fact the particular roughs referred to are very badly infested with weeds. The greenkeeper by keeping them cut close is driving out the weeds, and destroying now and for the future a source of weed contamination on fairway and green. "Get a new greenkeeper?" NO! not yet.

The tenth name on the pad was Wood B. Champion, club medalist, nearly good enough to qualify for national championships, poor loser, every hole should be built and maintained so he can better his game. Wood lost his match because everything was wrong. "Greens full of crab grass." "Traps full of foot prints." "Seventh green all heel marks." "The new green doesn’t slope enough," and a lot more troubles. "Get a new greenkeeper, one that knows how to take care of a golf course." Sure there is crab grass on the greens. This is the season of the year that crab grass thrives and is noticeable and crab grass almost invariably follows annual blue grass. Wood had made some fine scores on annual blue grass greens in the southern mountains and had persuaded the club to seed over some of the greens with it against the advice of greenkeeper. Wood wears spiked shoes. These spikes open holes in the turf into which drop seeds from his or another’s shoes and clothes. Traps were raked in the morning, but a thoughtless foursome ahead of Wood had failed to cover their tracks. On the seventh, the greenkeeper had asked that this hole be better drained, or put out of play in wet weather, also Jones had his wife walking around the course with him and she “forgot and walked on the green with her high heels.” The new green was built exactly to the specifications of the best golf architect in the country, but it doesn’t “fit” Wood’s game. "Get a new greenkeeper?" NO! Correct the offenders.

The last entry on the pad said “Joe” Smith. Just returned from a month’s vacation at a “nice summer course.” Played regularly around eighty, here he can’t do better than ninety. “The course is rotten. Get a new greenkeeper.” “Joe”

Be Fair to Your Fairways!

with a MEEKER DISCING MACHINE

Good greenskeepers know how trampling feet pack down the soil till the grass simply chokes to death for air and water. Rain runs off the fairway and hard, bald spots appear. First the greens committee hears about it . . . then the greenkeeper!

Cultivate your fairways with the Meeker Discing Machine, designed especially to loosen up the soil without hurting the roots. Then the air and water will get to the roots and the bald spots will be covered with hardy turf.

The Meeker can be adjusted for cultivating or cutting. It can be weighted up to 1000 lbs. for hard clay. Built in sections size 6’ 8” x 3’ with 28 cutting wheels. Assembled in gangs of 3 or 5 sections for tractors. Also in hand sizes. Write for prices and catalog.

C. O. JELLIFF MFG. CORP.,
98 Pequot Ave. Southport, Conn.
forgets that it is good business for summer courses to be low score courses, it helps the mental vacation to better one's score. Furthermore, the summer course has eight months to recover from four months' traffic which is no heavier than our normal traffic for eight months. The greenkeeper; is he fired yet?
The list of twenty or more names of the "crabby" players could be gone over in detail, but their complaints would be as varied and groundless as the few men-

tioned, and none of them would offer real, practical, constructive suggestions.

The Silent, Satisfied Majority
Nothing has been said about the sixty or sixty-five per cent of the members who joined the club for its recreational and social advantages. If they lose a ball, a stroke or even a match game, it is "all in the game" and they lose no sleep, temper, or money over it. To these members the greenkeeper is most satisfactory, and the course is improving each year. Unfortunately they remain silent, seldom tell the greenkeeper how much they appreciate his work, and even fewer times let it be known to the green-committee that they are satisfied. Shall the club be ruled by a noisy and selfish minority and "get a new greenkeeper?"

The greenkeeper has to suffer for the bets that are lost, the bad days at the office, the present trend to make and maintain golf courses for a few low scorers, individual carelessness by a few members, bad digestions, and many other player troubles. Such is "all in the game" for the greenkeeper. I suppose, yet sometimes they cost him his position, and possibility for advancement in his profession. Is it fair to the greenkeeper? Is it fair to the game?

"Get a new greenkeeper." Yes! If the course does not show physical improvement from year to year, in proportion to the money expended, the weather, traffic, age of equipment, and the greenkeeper's own professional improvement. NO! absolutely no, if the reason is that because every tree, fairway, green and all the rough is not suited to our particular type of golf, digestion, etc.

Club General Manager
OPEN FOR SOUTHERN WINTER ENGAGEMENT

Successful business man, fully acquainted with executive operation of golf club and with unusual qualifications of experience in golf club management, desires southern engagement for winter and spring season.

Is ideally qualified to handle on profitable basis, management of golf enterprise of any magnitude.

Available on very reasonable salary basis.

For complete particulars, write and advise regarding your establishment, its policies and the work you want done.

Address N. C.,
Care of GOLFDOM
236 N. Clark Street Chicago, Ill.

GOLFDOM

TOP DRESS
5 times faster and better
MAC GREGOR COMPOST DISTRIBUTOR

SAYES TIME, LABOR AND MATERIAL

Sturdy, reliable in performance and easily handled by two men.

Uniform distribution of compost insures true greens. Write for literature on economical greens maintenance.

MAC GREGOR Compost Brush—works top-soil into turf—keeps grass erect for cutting —effective on all turf. Write for literature.

Order Direct—No Dealers.
Mac GREGOR COMPOST DISTRIBUTOR CO
Box 717, Wheaton, Illinois

Please mention GOLFDOM when writing advertisers