



Spencer Murphy, Glen Oaks G&CC, New York Metro. District.

THIS year at Glen Oaks the able and active Spencer Murphy's shop was enlarged from 400 sq. ft. to 800 sq. ft., due to lively interest the president of the club, Ira Studsand, and Murphy's chairman, Nat Judson, take in the pro-shop as an important factor in member service at a top-grade club.

There is an air of dignity about the

Murphy shop that sets the stage for selling service on a high plane. Even Spencer's brother, "The Senator," who appears in one of the pictures, is a dignified personage, but with one of those Celtic smiles that assures folks they don't need to be afraid of dignity.

The use of striped awnings over the windows and the counter alcove is a smart

decorative idea for a pro-shop. The invitation to sit down and chat (and maybe develop the idea of buying something) is evident in the attractive chairs.

There's \$16,000 in shop stock on display and in storage at the Glen Oaks shop and Murphy keeps that investment turning over frequently. Murphy sells a lot of good bags. Look at his shop display and you'll see one answer. Note his desk by the side of the counter. Business details are handled promptly, conveniently and correctly.

Murphy's Famous Ball-Rack

Back of the counter is the famous ball rack, previously mentioned in GOLFDOM. A member's name is on each of these boxes. The boxes are filled with a dozen new balls. The members usually take out three or four balls at a time. When the supply gets down to three or four the box is filled up again with new balls marked with the member's name. The member also is supplied with free tees and three practice balls with his purchase of each dozen new balls.

With the purchase of clubs Murphy gives one free lesson, which usually leads to several more paid lessons. He has three assistants, and a clubmaker and repair man; all of them are kept busy because the Murphy shop is operated on the principle that when a member joins a good club, outstanding pro department service is one of the things the member has a right to expect and one of the valuable assets of membership.

These pictures are representative of the new shops put in this year with the helpful cooperation of club officials who have the right idea about pro-shop facilities and operation. One thing, which GOLFDOM considers an important point in pro-shop merchandising, is missing in these pictures, and that is evidence of price mark-

ings on a lot of the merchandise. Apparel items and balls are marked but if there are price tags on the clubs and bags they don't show in the pictures. At many clubs the simple action of plainly pricing the merchandise has boosted sales greatly.

But Rimann, Murphy and Wilson are doing all right. They are not suffering from any recession, so who are we to point out a flaw in not price-tagging merchandise in their shops?

Now Is Time to Analyze Members' Accounts

AS mid-season approaches at many clubs it becomes time to make an analysis of house accounts. It will be found, usually, that a comparatively small percent of the members are doing the heavy work in patronizing the club.

How to attract the others to the club so they will do their share in supporting the enterprise is something that needs definite data rather than the generalities that often must guide managers and club officials. In some cases, of course, members are patronizing the club to the limit their financial situation permits, but in many other instances lack of patronage may be accounted for by some element within the control of the manager and officials.

Study of specific data on the accounts puts the manager in a position to make definite recommendations for revision in entertainment or service programs.

Michigan Officers Chosen—The 1938 officers of the Michigan and Border Cities Golf Course Supts. chosen at the recent annual meeting are: Pres., John Gray; V-Pres., James Proven; Secy.-Treas., David C. Kennedy. On the advisory board are Wm. Smith, Herb Shave and Ben Bertrand. The tournament committee duties will be handled by Clarence Wolfrom and Ward Cornwell. R. J. Scott will look after the entertainment.

At an outing of the Michigan association held May 2 at the Franklin Hills CC, a team match was held between the 35 superintendents present and with Cornwell and Scott acting as captains. Scott's team won with a total of 964 as against the 1,000 scored by the losers. David Kennedy was low with 78. Ben Bertrand stepped up the calibre of the field considerably when he broke 100 for the first time, coming in with a neat 93.

The Cleveland Open, scheduled for the Oakwood layout Aug. 11-14, will carry a \$10,000 purse, with a first prize of \$3,000, a second of \$1,500, and 28 other cash awards ending with five of \$50 each. Trophies are provided for the three low-scoring amateurs.

Play will be at 18 holes each day of the event, with the field limited to 200 starters. After the second day's play, the field will be cut to the low 100 contestants, including ties.

Entry fee is \$10 and deadline for entries, which should be addressed to the Cleveland Open Golf Tournament, Hotel Statler, Cleveland, is 5:00 p.m., August 1.

MEMBERS ARE MORE THAN PEOPLE

By MARGARET KING

Robert E. Love served as manager for two years of the Beaver Dam Country Club, Landover, Md., where Miss Margaret I. King, author of this article, has been employed as assistant manager for the past 16 years. Love, who resigned his position at Beaver Dam last December 31, to accept the managership of the University of Pennsylvania Club of New York City, makes the following comments on Miss King's personality, her ability in helping to handle the 1,001 problems confronting country club managers, and the smooth manner she employs in dealing with idiosyncrasies of the members, who incidentally, are treated always as 'individuals' at Beaver Dam, not as just another group of golfers:

"An exceptionally well-balanced sense of intuition that averts many catastrophies is one of the gifts Miss King possesses. By analyzing situations and acting before things have much of a chance to develop she heads off many serious problems. Beaver Dam's roster includes many high government officials and the managerial job demands great finesse and the utmost in tact; that's why Miss King is so successful. Her grand personality, her patient and understanding nature have made friendships that have mellowed through the years. No wonder she is so greatly loved and respected by the members."

I OFTEN wonder at the end of each golf season, and we have long ones here in the Washington district, if I will be with the club another year; but long before the last ball has been hit in the final fall tournament I always find myself making new and bigger plans for the next season and trying to figure out how certain things can be improved about the club.

There are probably several things about my job of being assistant manager at a country club that need some explanation. First of all, I am a woman, and for that reason alone, perhaps, I am qualified to see that certain and many little details, which may seem insignificant in the actual operation of the club, are cared for in the best possible manner. You see, I don't look upon those who make up the membership as just people who come and go—somebody to serve and that's the end of it until they come around the next time. I look upon each member as an individual and try to carry out the wants of these individuals to their complete satisfaction. A big job, yes, but one that pays big dividends in greater club enjoyment for every member.

Study to Learn Member's Likes

Let me explain just what I mean by making an individual out of each member. You've got to study—and study hard; and you've got to remember what you have learned. You must study every member, learn what they like and what they dislike, what eating preferences they have, what they are interested in; in other

words, you've got to know everything about them and what to expect from the time they open the front door with a pleasant "good morning" until they slam it at night with a mumbled "goodbye".

I have watched men come into the clubhouse in gay spirits, have something go wrong with their game, and go away threatening to resign or have someone fired. By lending a sympathetic ear at this time, even though the member may be unreasonable, you can do him and the club a lot of good in helping him solve his problem, and by assuring him that such trouble will never happen again.

Women today sign some of the biggest checks around a country club, and I've found that keeping a member's wife happy is one of the most important duties of every club employee. An employee may linger in the locker-room just a little longer than a woman thinks she ought to be neglected. The best thing to do in this case is to prevent its happening by having your members so catalogued that you can fit each woman into a group that will make her forget her seeming neglect.

Iowa State Golf Assn. has added a junior tournament, open to all boys 16 or under. The championship will be played in Des Moines during August.

Clever opening announcement of Bridgton Highlands (Me.) CC pictures a quartette of lovely golfers behind a wire screen. The screen represents part of the front of a chicken coop on which appears the lettering: "We haven't scratched yet", and "Fed on Vitamin Tee."

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Then give the locker-boy a gentle hint about better service, and keeping members in a good humor.

You will sometimes feel that some of the women must be neurotics. I recall one member's wife who always found fault with the menu till you wondered if you could ever please her. If we had pumpkin pie for lunch, she wanted that pie for dinner, and if, by chance, we would run out of something listed on the menu, she would complain and wonder why a portion had not been placed aside for her. Yet we all know that woman is 100 per cent for us, and all the help, from the chef to the locker-boy, wait on her with a smile. That's the way it goes in a country club. You've got to be ready for any emergency and solve it successfully, because the members are used to the best and are paying for the best.

Sixteen Years and No Fights

I have never had an argument with a member in all my sixteen years of service at Beaver Dam, and that's because I never forget a member's rights. Recently, a day or two before one of our club dances, a member called me on the phone and said he would be over with a party of 24. This was made even more serious when he said he wanted his table in the ballroom, and at his table he and his wife would be the only members, the balance guests.

I told him that it would be all right, that we would be glad to take care of him, but that we would have to put them on the porch. Then a bomb exploded. He said, "Young lady, you will not put me on the porch now or at any other time," and for fully five minutes I wasn't able to utter even one word. When he had finished I said only a few words that went something like this: "After all, Mr. . . . , this is your club and this is your party. I am the employee and I am here to see that your party is a success. Now if I fail to do that I would be more unhappy than you." He never answered me, just hung up the phone.

When he arrived the night of the dance I greeted him most graciously, and when

I had the waiter show him to a table in the ballroom and at just the exact spot he wanted, he immediately hunted me up in the foyer and looking like a naughty child who had learned a lesson, thanked me kindly for saving a spot for him. Giving your members what they want is part of your job, but remember that losing your temper will never clear the situation. In this job I have taught myself to be able to place myself on the opposite side of the desk so that I would know how I would feel were I the member and not the employee.

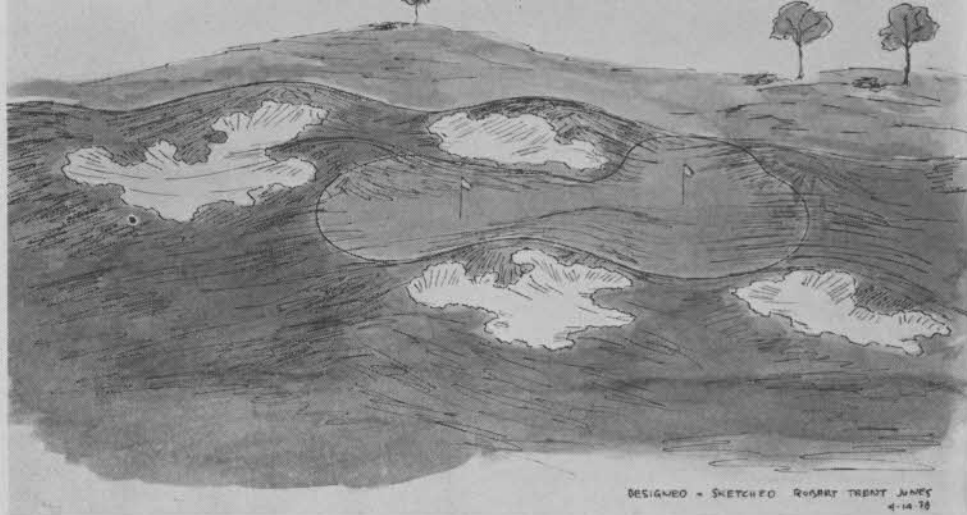
Committee Job Stops Kicks

Keep your eyes open for members that are dissatisfied. If they are dissatisfied with the golf course, put them on the green-committee; the same with clubhouse and tournament committees. After a member has served on a committee and has found out for himself just what the problems are that must be handled for the benefit of the most people, you'll be surprised at the 100% member he'll turn out to be.

Recently I was having dinner with a member and his fiancee. The main course arrived and as the food was placed before her on a grill plate, I remembered that she detested food served on one dish. I had the waiter remove the plate, and although the meal service was slowed up a little, I had saved the good-will of a potential member of the club.

Unless you have studied all of the members of your club, never attempt to make up a match for golf play, or to form groups for social sessions around the clubhouse. This is especially true regarding new members, whose friends and golf partners must be chosen most carefully so that personalities do not clash. Remember, a man's golf partner is a very dangerous thing to tamper with. Luckily, I have never failed in my efforts to fix up a match.

In club management it is the little things that are important in giving correct, appreciated club service. Few members' wishes will seem unreasonable if you realize they are individuals and not just another member. I love my work, am proud of what I am doing, and I only wish I could visit every club in the country and help those people employed at these clubs to realize they have the best job in the world, although it's a long way from being the easiest.



DESIGNED - SKETCHED ROBERT TRENT JONES
4-14-78

Proposed green for new course at Utica, N. Y., discussed in this article.

TRAPS — WHAT SIZE? WHAT DEPTH?

By ROBERT TRENT JONES

ONE of the charms of the English seaside courses is the infinite variety, the tumbling irregularity, and the rugged appearance of their traps. Like the catch in the Scotch fishermen's baskets, they are all sizes and shapes. So important has been their influence in the realm of golf that some of them have been given such names as Hell's Bunker at St. Andrews (which cost Gene Sarazen the British Open one year), Sandy Parlor, and Hell's Half Acre.

One of the weaknesses of our early American courses was the tendency to standardize the size, shape and depth of the traps as if they came out of one mold. While through this we may have become proficient in blasting to within a drop-putt area of the pin, at the same time it has made golf lose some of its charm.

While deep traps still have their spine-quivering effect, they no longer produce that aggravating fear that existed before the advent of the sand-wedge. When a Revolta will play from 13 traps during the course of a round of a championship

tournament and still turn in a card of 71 by virtue of his trap-shot efficiency combined with a velvet putting stroke, traps have certainly lost some of their sting for the expert. But even the sand-wedge has not proved infallible, particularly as far as the average golfer is concerned, for he can still be seen looking for the ball at the pin when he should be looking at his feet after a vigorous effort in the trap.

How then, can we combine the design of the hole to give a balanced source of punishment to all types of golfers, making it sufficiently fearful for the crack golfer without making it too tough for the average shooter? This can be done by having key or master traps from the tee and at the green, the location of which will depend upon the strategic value of the shot. These can be made fearful-looking by flashing the sand and sod, and actually fearful by undulating the traps so that a constant variety of shots must be played due to the stance one obtains at the spot where the ball has stopped.

At the same time such undulations can be made to blend with the subtle green contours and the dune-like framework of

Member clubs of the New Jersey State GA are reported to be pretty worked up these days over a recent action of the association limiting the state amateur championship hereafter to 27 and 36-hole courses, where the large qualifying field can be handled. This means the tourney will rotate between six clubs from now on, unless the ruling is rescinded.

More than 120,000 sheets of the PROMotion group instruction series were requested by pros and school athletic authorities during the first week after the new instruction series was announced. The sheets follow the plan first used with great success by Elmer Biggs and Art Andrews in class teaching of Peoria (Ill.) high school students.

Additional sheets were prepared by Frank Sprogell, PGA publicity committee chairman. Pros engaged in class instruction may secure as many of these series of 6 sheets as they require, and without cost, by addressing their request to PROMotion, Room 1614, 14 E. Jackson Blvd., Chicago, Ill.

the green, making the hole an artistic one as well as a fair test of golf. Such traps should be located primarily to affect the shots that would be normally played by the expert.

To make holes and green design more attractive in appearance and to administer a psychological effect, other traps which are necessary to complete an attractive and interesting golf hole should be of varying depths and sizes with a tendency toward the shallow, so that while the average golfer may frequently find his ball in

them, he will require but one stroke to get out of them. Even though the traps are shallow, tests have shown that the odds of the golfer's getting down in one putt after having recovered from such a trap are decidedly against him.

The accompanying sketch of a proposed green for a new course which we are designing for the City of Utica, New York illustrates the effective use of traps of varying depths in proportion to the strategic value of the shot required. For illustration the pin has been placed in two locations to show the relative difficulty depending upon its position. The two traps at the back are shallow, while the key trap directly in the front is quite deep and the trap at the right is a compromise being of medium depth.

The variety of size, and the irregularity of the orientation of the sod and sand blend with the design of the green to make an attractive picture. A hole of this type beautiful to look at, and intriguing to play, has a finality that makes it a constant source of pleasure for all classes of golfers.

HOW CLUBS HOLD MEMBERS

By H. B. MARTIN

IT is only human for many golf club members to become obsessed with the belief that the greenest fairways are those that belong to other courses. The most beautifully manicured greens and perfect sand traps are always a couple of miles down the road, or across town at the links you played last weekend as a guest. Likewise, the most palatable and best served food can be found at the wayside inn along the highway or at some other country club.

Club officials and the management are often responsible for members arriving at this state of mind, but more frequently it is just the cussed perversity of human nature. Most everyone who has even a remote knowledge of golf and country club life has an idea that he, or she, could run the golf club a little bit better than the present management, or at least, he would like to try it—and no advice would be needed from meddling club members or incompetent committees.

It is not such a strange request to want to be the whole show. The fact of the matter is that running a golf club is like

managing any other well organized business—it is a one man job. This axiom might be better qualified in this way: The nearer a golf club comes to being a single working unit the more successful it will be.

It has been said that the proof of this is in the statement, paradoxically as it may seem, that 10, or even a dozen of the smartest and most successful business men in the country could not run a golf or country club. Such a venture would be a gigantic failure. This is not a supposition or just idle guess work—it has been tried several times and nearly always with the same disastrous results.

The average golf club member feels he has a proprietary interest in the organization and its management. Few are willing to sit back without venturing a sug-

gestion or an occasional comment. Most often these ideas come in the shape of criticism. It is this sort of thing that has produced many headaches for the board of governors or the club steward. Some golf clubs have been smart enough to sense this and have provided means of keeping it to a minimum. Many clubs have a little complaint box hanging in a convenient place. A successful club in Pennsylvania thought up a better plan. If one of the members came around too frequently with complaints he was immediately asked to join the board of governors and help run the club. There were always a few on the board ready and willing to hand in their resignation when a professional kicker came along, so there was no need of waiting around for the first vacancy.

Service Is Keystone

Every golf club is a private institution and should be conducted as such. Service is primarily of the greatest importance. Service in the clubhouse, service in the pro-shop and service on the links should be the member's privilege. This is what they pay for and what most of them expect to get. Service is of course limited in many cases as it is confined to whatever the budget will stand. Many clubs have been forced to hang out the distress sign during hard times because the members insisted on the same quality of comfort and luxury that was theirs in more prosperous times.

The club manager is often forced to the limit to make both ends meet and is at his wits end to accomplish his aim and keep peace in the big family. There are, however, certain things that he cannot do and keep his personal popularity and not jeopardize the club's reputation. For instance, cutting down the quality of food is not a good way to practice economy. The most fastidious members of golf clubs will not stand for being served with anything but the best quality of food or liquor, and they demand full measure.

The Shenecossett CC, Eastern Point, Conn., made a good move when they made a specialty of serving the best drinks possible to make. It wasn't necessary to advertise this, as nothing travels faster than news such as this. No one complained about liquor and the extra cost of serving only the best paid handsome dividends in the end.

One president of an upstate New York

Additional evidence of golf interest being at the highest point for many years was presented at Inverness club, Toledo, where the gallery and house income for the Fourth Annual Invitational best ball tournament was approximately 20% ahead of the best previous year.

club hit upon a smart idea of keeping the membership filled. When a member did not come around for several weeks he figured that whatever was wrong could be righted by showing a little interest in the member. So he took it upon himself to write these members a personal letter, impressing upon them the fact that they had been missed. Instead of a resignation at the end of the year it usually meant that the strays came back into the fold and took a renewed interest. When one member is permitted to become dissatisfied, his quitting usually takes two or three others with him.

The Seawane Golf Club on Long Island issues a club monthly. There is nothing especially new about this, but Seawane has a brand new idea. These publications are issued in three sizes according to the club's activity. In the busy months the regular edition of the Seawane News comes out with snappy items about this and that and usually mentioning the names of the members in some interesting way. Some months warrant issuing only what is known as the Junior News which is about half the size of the regular issue. In the winter months the Baby News, just a tiny little affair, comes out just to keep up the spirit of the thing.

Caddies Keep Players' Score

Seawane has solved the problem that has been the bane of most handicap committees. When the caddie starts out from the first tee he is provided with a card and pencil and keeps the golfer's score, which he must turn in after each round before he receives his pay. He does not argue with the player but puts down exactly what he is told. The result is that

Corsages of orchids to Mrs. Frank Arbieter, pres., and her sorority sisters of the Louisiana Womens GA, for their handling of the "Special Events" and "Tournament Regulations" details of the association's 14th annual tournament. It is a fine job of presenting tournament dope clearly and completely, to guide every contestant and official and could be used as a model for many tourneys.

Friendly interest in young golfers is evidenced at the Canandaigua (N. Y.) CC, where the members recently decided to permit high school students to play the course Saturday mornings without fee, by presenting credentials showing they are active students.

the handicap committee has a true line on its golfers and there is never any kick about the handicap.

Down at the Ocean Forest club in Myrtle Beach, S. C., where many winter vacationists stop on their way to points further south, Bob White, who is in charge, insists that when a guest stays overnight there will always be fresh flowers served with his coffee in his room the next morning. This never fails to make a hit with the women.

Wolf Hollow club in Pennsylvania was so intent on keeping sand traps in perfect order that each caddie was provided with a small rake which he carried in the golf bag. Several clubs have taken to this idea.

Curling Brings Winter Patrons

St. Andrews at Mt. Hope, N. Y., and The Country Club, Brookline, never complain about hard times. In the winter months these two very old clubs, filled with time-honored tradition and that sort of thing, enjoy prosperous times by keeping their curling rinks going. This sport fits in with golf, and on weekends the restaurant does a good business because it can count on a certain number without having to gamble on the weather. St. Andrews has an excellent watering system and one that has paid for itself many times. Fortunately the clubhouse is located on one of the highest spots on the course. The word economy is a watch word at this club as nothing goes to waste. The water from the swimming pool when drained once a week goes to serve another purpose — that of keeping the fairways well watered.

Westchester Country Club has two fine courses but for years the fairways suffered from lack of water, only the greens being thus favored. A year or so ago the members asked for an adequate watering system, but there were no funds available. Then some bright member hit upon a plan. His idea was to charge each golfer twenty-five cents for each round—guests,

too, being forced to pay. During the first season of the plan the club took in enough so that in a few years the cost of the watering plant will be wiped out and no one will have missed the money that it cost.

A club in Ohio had so much trouble with members complaining about the caddies losing balls for them that something had to be done. The club manager decided that it was not the caddies who were to blame so he put up this sign in the pro-shop:

"No member who can drive a ball straight down the fairway for two hundreds yards or more ever complains about having a poor caddie."

This lessened the caddie problem and stories about his inefficiency very materially.

Golf club officials should never get on their high-horse and feel that they are being unjustly criticized when members make suggestions that would really prove helpful around the club. Many a fine idea has gone to waste by some timid soul around the club not wishing to be put in the light of a chronic kicker and thus keeps his thoughts to himself. Suggestions should be welcomed always; but contributors should be reasonably sure of the practicability of their suggestions for better service for the most people. One secretary of the club answered every letter that he received and gave it serious consideration. If it was just a plain knock it was treated with the utmost respect and consideration. In no time the more persistent critics soon came around to the other way of thinking.

Unless there is some way to change human nature, members (and this goes for all clubs, town or country) are going to have their say around the club and wise officials will profit by these airings. There are lots of smart things to do around a country club that no one has yet unearthed. They always need not be economical suggestions but something that will help the rank and file to more golf enjoyment and to more fun around the clubhouse.

Hold Field Day—Indiana Greenkeepers Assn. held a field day on May 16 of golf course equipment at Meridian Hills CC, Indianapolis. A great turn-out of club presidents, green-chairmen, greenkeepers and park superintendents witnessed tractors, mowers, spikers, sprinklers, sprayers and other equipment demonstrated by over 20 representative manufacturers and supply firms.

Least superstitious hole-in-one of the year: Charles E. Ray on the Coquillard course at South Bend, Ind., at the 161-yard 13th on Friday, May 13.

DRAINAGE IS MAJOR TURF NEED

*Rutgers short
course paper*

By E. R. GROSS

Prof. Agric. Engineering, Rutgers Univ.

THE removal of excess or unnecessary water by drainage is continually growing in importance as scientific knowledge gives us greater assurance of the benefits to growing plants and reduces the fear that drainage will remove water which might later sustain growth. Plants can use only capillary moisture or that moisture which clings to the soil particles and does not move downward in response to the force of gravity. Free water moves downward by gravitation and tends to form a water table thus filling the pore spaces in the soil and driving out the air. Air as well as moisture is necessary to plant growth.

Removing the free water or lowering the water table improves growing conditions by increasing the zone in which plant roots may feed, resulting in a larger root system, an increased supply of capillary moisture, more air, a warmer soil and more available plant food. It is now generally believed that the water removed by drainage can only benefit rather than hinder plant growth. Sturdier plants with deeper root systems and larger areas of root pasturage can withstand more severe drought than those with limited root systems cramped during early growth by excess water in the soil.

Nature has provided soil conditions allowing abundant plant growth as well as conditions under which little vegetation can exist. Nature's methods of drainage are surface run-off and percolation through the soil. Water moves downward in the soil much more rapidly than laterally hence the tendency to form a water table. Heavy soils so greatly retard percolation that free water may be held for too long a time.

Twelve Benefits of Proper Drainage

Man has long known that he could improve plant growing conditions by providing channels for the escape of free water and the lowering of the water table. He may also improve surface run-off conditions by open ditches, terraces and grading. Underground channels have been made of stone, brush, logs, wooden box drains, and various forms of tile.

Any form of drainage which effectively removes excess water from the soil within the requisite limit of time improves the crop, soil and water relations, thereby increasing the productive capacity of the soil. The result is a hardier vegetation, more luxuriant growth or a higher crop yield. Benefits of drainage so effectively stated by Powers and Teeter in their book "Land Drainage," in abbreviated form, are:

1. Removes excess water—Lowers the water table or removes excess free water, vacating open pore spaces and drawing in air.
2. Increases the capillary supply of moisture—A lowered water table increases the zone in which capillary water, clinging to the soil particles, is available to plant roots.
3. Improves the soil-structure—A wet soil is pasty and will not crumble in response to tillage, hence cannot readily become loose and friable. Drainage allows deeper root penetration followed by increased bacterial activity and leaving a residue of vegetable matter.
4. Increases root-pasturage—Lowering the water table or the zone of free water proportionally increases the area in which roots may feed.
5. Diminishes the effect of drought—Vegetable matter in the soil increases its water-holding capacity which coupled with a larger zone of capillary water greatly increases the reservoir of usable soil moisture. Experimental data show that drained soils may contain a higher percentage of moisture at the close of a dry season than adjacent similar but poorly drained soils.
6. Affords better air circulation—The

The first caddie tournament in West Virginia will be played at White Sulphur, July 25. All West Virginia clubs have been invited to send the winner and runner-up of their caddie tournament to White Sulphur where they will be guests at the Greenbrier hotel.

Reported Stolen—One 24" Jacobsen power putting green mower, serial number P 13-1216-12. Anyone having information on the whereabouts of this mower is requested to notify GOLFDOM at once.

continued downward movement of the water afforded by drainage draws air into the pore spaces thus vacated and supplies the oxygen and nitrogen needed by plant life and soil bacteria.

7. Makes the soil warmer—Excessive vaporization from a wet soil may reduce the temperature 3 to 8 degrees. A warm drained soil permits earlier germination and more rapid growth.

8. Lengthens the growing season and firms the soil—A warm, drained soil becomes firm much earlier. As frost releases the water drainage removes it leaving a firm sod or a workable soil early in the season.

9. Assists decay and nitrification—Soil bacteria causing the decay of vegetable matter secure oxygen and nitrogen from the air and build up the reserve of nitrogenous plant food. Water-logged soils deficient in air encourage denitrifying bacteria rather than the nitrifying types.

10. Prevents erosion—In poorly drained soil excessive surface run-off removes much of the most valuable soil. Good drainage permits absorption of the water carrying plant food into the subsoil and encouraging deep root pasturage.

11. Prevents heaving and winter killing of grass and grain crops—Freezing wet soil causes heaving, lifting the crowns of plants, shearing the roots or exposing them to extreme cold.

12. Prevents the rise of alkali—In some soils excessive vaporation brings to the surface soluble salts which will in time inhibit plant growth. The common salts, sodium chloride, calcium chloride, sodium sulphate, magnesium sulphate and sodium carbonate give little trouble in this region because the annual rainfall is sufficient to prevent their accumulation.

Open Ditch and Tile Drainage Merits

Open ditches have the disadvantage of cutting land into smaller plots, or requiring frequent cleaning and of being less effective in removing the excess water from the land. They are seldom deep enough to draw water from the lower subsoil and are too far apart to be effective in this way. The action of water on the banks of a ditch tend to seal it against infiltration of water from the soil. Hence open

ditches serve primarily as channels for surface run-off. The advantages are that they may function when an outlet sufficiently depressed for tile drainage is not present, that they require less slope and are more effective and economical when large quantities of water are involved. Sub-surface drainage ultimately empties into some form of open ditch.

Ditches Require Little Slope

Large ditches will function with slopes as little as 1 ft. per mile. Smaller ditches operate better on 2 or 3 ft. per mile. One ft. per mile is roughly equal to $\frac{1}{4}$ in. per 100 ft.

Tile drainage has the advantage of being completely covered and offering no obstruction on the surface of the land drained. It affords much more effective drainage and requires no attention excepting to keep the outlets unobstructed. When an entire area must be tiled the cost is rather high. Spot drainage following the natural contour and effecting only low wet areas is more advisable. This is usually called the natural, grouping or random system of drainage. Other systems, named for their form, are the grid system, herringbone system and double main system. These may be used for complete drainage of an area or as parts of a natural or grouping system.

Tile may be made of clay or concrete, clay being the more common. Much concrete tile is subject to deterioration from the action of soil acid or alkali. Clay tile is made in vitrified, salt glazed and hard burned types. The last, being lower in price and yet satisfactory, is most commonly used. Porous walled concrete tile also available and apparently resistant to soil acid and alkali, is higher in price and used chiefly where extremely rapid drainage is needed. Agricultural tile is round in form and sold in 1 ft. lengths. It is rated in size according to its inside diameter; the 4 in. size being the smallest generally recommended. A slope of 3

For a number of seasons, Pine Brook GC, Gloversville, N. Y., has allowed the general public to use certain portions of its grounds for recreational activities if they did not interfere with the golf play. But that is all over now, because the public carelessly and often maliciously committed a long series of abuses to the club property during the past two years. Now the grounds are posted and local police are cooperating in giving the bum's rush to trespassers.