break some records!
from that of August. There is more fall and winter golf played in the New York district than in any other of the northern districts but there seems to be no reason why this condition shouldn't be extended, much to the profit of the pros and maintenance of club interest.

**Money in Winter**

The other day we were talking to that doughty Scot, Soutar, who is assistant to Bert Way at Mayfield in the Cleveland district. Soutar said that he was out at the club almost every day last winter and picked up considerably more money instructing the snowbirds than a fellow would average at an indoor school. Developments in course maintenance practice that protect against possible damage from winter play also are helping to extend the season and make the pro less the victim of unfavorable weather conditions and a short season.

Some of the best weather of last year in the Chicago district occurred during October and November, but the habit of folding up shortly after Labor Day kept a lot of the clubs and pros from capitalizing. The Chicago district with a championship football team at Northwestern and Soldiers Field football attractions, together with fall race meetings, has plenty of competition for autumn weekend golf. Last year, however, the football and race crowds slumped decidedly while golf courses were drawing mid-summer play. Many of the boys were unable to supply weekend demand for balls and awakened just late enough to get stuck with some of their eleventh hour rush orders.

Watching the weather forecasts instead of the calendar will tip off many of the fellows to some business that's been missed.

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**Letter Adds 70 Sets to Pro's Cleaning List**

THERE'S PLENTY of business if you go after it. Witness this letter, which was sent out by Wolf C. Rimann, pro at South Ridge C. C. (Kansas City distr.), on March 26:

**Dear Member:**

> Having your clubs cleaned is just like having your clothes pressed,—not only a matter of pride,—but of economy as well.

Here is an early season reminder of my Club Cleaning Service. Actually, this service will save you many times its cost. Clubs always in tip-top shape, shining clubs,—always well polished,—chippings well wrapped,—heads glued tight. You don't need to tell me that this or that club needs a little attention. I'll discover it and fix it.

The cost of this service is only $1.00 per month, or $1.50 for man and wife, which includes cleaning, buffing, and all minor repairs.

> Keeping your clubs in good shape is really an economy:—they last longer and you actually play better golf with them,—but in addition to this the mental stimulus of knowing that the clubs are in good condition adds extra confidence to your game.

So that you can conveniently sign up for Club Cleaning Service, am enclosing a self-addressed and stamped postal card;—all you have to do is sign the card and return to me,—I'll do the rest—and every time you step up to the first tee you can do so with the assurance that your clubs are nice and clean and all ready to help you play a good game.

There's no time like the present, so sign and return the enclosed card to me today. Yours for a good season.

Cordially,

As a result of this letter, Rimann added 70 sets to his club cleaning list for 1932, which speaks volumes for the letter's pulling power. And since club-cleaning can always be put on a monthly basis, there is still plenty of time for pros everywhere to get out a similar letter to their membership.

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**WHITE SCORES 62-STROKE ROUND WITH "PRO ROYAL"**

Providence, R. I.—U. S. Rubber Co. calls attention to the record-smashing round of Orville White, pro at Westborough C. C. (St. Louis distr.), who on May 8 scored a 62 for 18 holes over his home course. U. S. says:

> Orville White, pro at Westborough C. C., St. Louis, scored a record-breaking 62 over Westborough's 18-hole course, which measures 6,340 yards, on May 8, 1932.

> His putting was deadly, and his woods were sensational. On the fifth, a 581 yard hole, he was hole high in two. He drove the green, 331 yards away, on the ninth; and drove the 266 yard seventeenth. Every inch of this marvelous round of 62 was played with a 'Pro Royal.'

> The previous record of 66 was made by Abe Mitchell in a match against Walter Hagen, played in 1918. This wonderful score gives us every right to say that the 'Pro Royal' is the best ball for the better-than-average golfer.
You need an Extra Pull to draw them in this year!

The New BURKE SMITH-IRONS

are the magnets for NEW Sales and NEW Profits!

It takes a real magnet to draw customers this season. Smithirons are as exceptional in interest-getting as they are in score reducing. Golfers early discovered the distinctive advantages of these clubs—weight behind the point of contact to give greater distance, and rounded sole to reduce hacking to a minimum and eliminate divot-digging.

Display Smithirons!—let your customers "feel" them. They pull lower scores for them—and greater profits for you. Send for full details.

THE BURKE GOLF CO. . . Newark, Ohio
TEAMWORK among fee-course operators located in the same territory is profitable for all concerned. Pay-play club members of the Cleveland District G. A. are among the latest to begin a co-operative drive to develop and stimulate play.

Cleveland, like all large cities, has had its full share of depression and golf as a business is weathering the storm. In some instances, private clubs were forced to throw up the sponge by accepting fee play to help defray expenses, while others became pay-play propositions entirely. But, depression or not, fee-courses in this district with their more appealing rates opened the 1932 season to splendid crowds. Evidence is undeniable that today price speaks with a loud voice, in sport as in anything else. Too often, unfortunately, the golfer's desires said "yes," but his pocketbook said "no." With the new lowered rates, fee-courses in the Cleveland territory are meeting the player half way.

The Willowick C. C., managed by the well-known Bill Livie, is a good example of progressive fee-course operation. Willowick, formerly one of the most exclusive private clubs in Ohio, is now entirely on a fee basis. Livie, now in control, is responsible for numerous innovations. He is employing the so-called Artisan Club plan, which is another word for employees' play. Organizations from offices, factories, lodges and public institutions are given club rates as groups under this scheme.

Livie advertises his course as having "all private club privileges at public course cost." Willowick does have facilities not ordinarily available at the average fee layout. The plant includes a spacious dining room and grill, a dance floor, a children's playground as well as a bathing beach and a baseball diamond. Livie's scheme is to bring groups of players to the course as well as individuals. He gives special rates of all varieties. If, for instance, a golfer has Monday of each week off from work, he can get a season rate for that day throughout the season. By this plan, Livie hopes to encourage during-the-week play, which is necessary for profitable operation of such a course.

Group for Lessons by Skill

Group lessons are being given at Willowick, too, and every effort is being made to gain new players to the game. The groups are classed according to skill so each recruit may receive the maximum benefit.

The other fee-course members of the Cleveland District G. A. have joined with Livie's club in planning inter-club matches for this season. A public links league has formed, with teams from the various courses competing against each other. In this way the Cleveland operators are successfully arousing that home club spirit in the player, also loyalty for his particular course.

Usually, the fee-course does not possess as elaborate a plant as the private layout, and often the "club" idea is sadly neglected. The public links player is not much different from his more prosperous brother, the private club member. He enjoys that certain fraternal feeling which comes whenever a group of men get together, and the fee-course owner must not disregard this fact. With organized groups, such as the Cleveland operators are forming, there is a more friendly attitude noticeable.

Build Atmosphere

Without some sort of club atmosphere in the fee-course scheme players tend to stray to other pastures. Group and team play will do a great deal to keep a player loyal to his course, an important step in successful operation. The Cleveland fee-course managers have elaborate plans formed for this season to keep their players interested. Competition between courses, they feel, is a dependable method to develop loyalty.

As the average-fee-course player is usually confined to his job during the first 5 days of the week, or, at least, has very definite working hours, Saturdays, Sundays and holidays receive the crowds. The problem of the operator has been to dis-
READY FOR HICKORY'S RENEWED POPULARITY

VULCAN INTRODUCES NEW HAND-MADE HICKORY-SHAFTED IRONS

• • All real golfers agree that nothing has ever equalled Hickory Shafts—particularly in iron models—for that sweetness of feel and genuine satisfaction that comes from a well-hit shot.

• • Confident that this deserved recognition and renewed appreciation for hickory shafts would be forthcoming, Vulcan is prepared and now introduces new lines of HICKORY-SHAFTED IRONS. A special department of the best-skilled hand club makers in the country is devoted to the making of these new, high grade irons.

• • Only hand-picked rounds of thoroughly seasoned, wind-toughened hickory, tested to our most rigid specifications, are used for shafts. These new irons are the kind you'll enjoy playing yourself, as well as selling them. Stiff shafts, taken down to the proper point—fitted onto the head dead straight. Hickory shafts with that good old pitchburn finish, and topped with imported Vulcan Edina grips.

• • Here are REAL golf clubs, made right and furnished in both the Vulcan and P. G. A. Stainless lines. And priced sensibly for quick and profitable sales.

• • The Vulcan man will show these models to you soon. A postcard will hurry him to your shop.

VULCAN GOLF COMPANY
9 Second St., Portsmouth, Ohio, U. S. A.

VULCAN CLUBS OF CHARACTER
Techny Fields Fee Course (Chicago district) prompts play with free class for New Trier high school students

tribute the play more evenly through the week. At present there are a large number of unemployed who will spend their days on the golf course if the cost is not too high. When during-the-week play is reduced in price so that golfing is not considered a luxury, more of this class will golf. Willowick’s Bill Livie holds to this theory. Just like any other new plan, the proof is in the trying. The books will tell the tale at the end of the season.

Big Unworked Field

There is no denying, however, that there still remains a very fertile field open to the fee-course operator, and that is winning new players to the game. Golf is only recently a “workingman’s” sport. Thousands still believe that golf is too expensive, or too “nice” for their taste. Last year I introduced several strangers to the game. They had never had clubs in their hands before and frankly confessed they held a secret ridicule for anything affiliated with golf. Perhaps the years of class distinction and social rating had soured them against their more wealthy friends who could afford a private club. But, at least, they had an unwarranted prejudice against the game, only because they believed that it was nothing but “hitting a little white ball and then looking for it.” A day on the course, with plenty of time and a few helpful companions, changed their attitudes immediately. Two weeks of playing transformed them into ardent fans. Now their wives are blaming me!

This just serves as an example of what must be done. Give a man an opportunity to test out the game. Let him take a few lessons, in a group if possible, and send him out on the course with a congenial partner. The first taste should be sweet and it will be if the new recruit is given a helping hand. And by making a golfer out of an awkward skeptic, the fee-course manager has sown more seed to increase the profit harvest, as well as gaining another loyal booster for his plant.

With group instruction, the pro can keep up his earnings yet lower the cost to the pupil. At Willowick, for instance, Bill Livie and his brother George are organizing classes wherever and whenever possible. They realize that often the average fee-course player cannot afford expensive instruction. High school groups, for example, are instructed collectively, as are women. The Livie brothers are anxious to make golfers out of duffers, as they are well aware that by understanding the fundamentals of the game, the player gets more enjoyment for his money and will make golfing a habit.

Another idea being studied is that of giving low-cost, or free, instruction to the beginner with the sale of a season membership. Why couldn’t a half-dozen or more lessons be donated with each fee-course membership? Who would lose by it? If a beginner realized that he would be taught the proper methods of play, wouldn’t he be more easily sold on the idea of plunking down $60 or $70?

To encourage bringing new players to the course, a premium of some kind could be offered to the old member for each recruit he garnered. Possibly, one of your fee-course regular players knows of a friend who would like to start in golf for the first time. With an incentive he would go out of his way to bring in that man or woman. The fee-course owner could afford to give cash discounts on play for every new player brought to his tee to whom a membership is sold. Just as a thought, for a short period advertise free play to every player who brings a new player along with him. Such a plan could be easily worked out to everyone’s satisfaction.
Hex shafts are to be found on quality clubs of leading club manufacturers. The smart hexagonal shaft with the Bristol Hex trade mark catches the eye of golfer customers and leads the way to the sale of clubs. Made by the makers of the Bristol Torsion, Bristol Gold Label and Homaco Shafts.
Soil Characteristics in Relation to Golf Courses

DR. C. O. ROST

The greenkeeper is the man who is responsible for the looks of the course. You, Mr. Greenkeeper, come onto the scene after the land is selected. They hand you something and you have to make something out of it. It is up to you to make an attractive course, one which people like to get out onto. You have nothing to say about the type of soil that you have to work with yet it is one thing you are primarily concerned with because this soil is what you are going to grow the trees, shrubs, and grass on, and the general appearance is going to be due to the kind of soil you have to work with.

Soil consists of a mixture of different size particles of rocks along with particles of organic matter. The size of these particles is a very important thing and we have described that under the name of texture. O. J. Noer has given the list of textures—coarse sand or fine gravel, medium sand, fine sand, medium sandy loam, fine sandy loam and very fine sandy loam, silt loam, silty clay loam, clay loam and clay. The following show the textures: Sand (coarse, medium, fine), 10 to 15% silt and clay; loamy sand, 15-20% silt and clay; sandy loam, (medium, fine and very fine), 20 to 50% silt and clay; loam, 50% or more of silt and clay; silt loam, less than 20% clay, and 50% silt; silty clay loam, 20 to 30% clay, 50-80% silt; clay loam, 20 to 30% clay, 20-50% sand; and clay, more than 30% clay, less than 50% silt.

The amount of silt and, especially clay, in soil has marked effect on the water holding capacity. The finer the texture the higher the water holding capacity; the coarser the texture the lower the water holding capacity. You want enough fine material so that you have some considerable reservoir for water for the soil on which you are going to grow your grass. It will have a definite relation to the amount of grass produced and it will have a definite relationship to the amount of water required. Where you have the fairs, you can use sprinklers it is not so much of a problem.

Relation to Natural Drainage

In this connection, also consider the matter of nutrients and natural fertility. The finer the texture, ordinarily the more fertility there is in soil. For natural fertility you will want a medium fine soil. Perhaps the ideal soil for your golf courses would come somewhere in between the fine sandy loam or loam. This loam soil is often spoken of as 50-50 soil. It makes nearly an ideal soil because it has water holding capacity, is ordinarily fairly fertile, drains well and hence permits earlier play in the spring.

Organic matter is very desirable in any top-soil, as it serves to prevent baking. Organic matter is a good deal like a sponge or peat. It helps to hold the water in the soil.

Chemical Properties

Under chemical properties such things as the supply of plant food nutrients, nitrate, phosphate, potash and lime should be considered. Consider the reaction as to acidity. This is quite important to you concerned with golf courses. The most suitable reaction for plant growth is slightly acid. A pH around 6.5 is considered ideal. Plants perhaps do a little better under that reaction than under others.

In the case of nutrients we are chiefly concerned with nitrogen, phosphate and potash, three elements we ordinarily apply in commercial fertilizer. We can supply these as we want. In growing grasses nitrogen is most important because it makes an abundance of top growth. Select your nitrogen fertilizer to suit your needs. There is a nitrogen fertilizer that develops an acid reaction, it is urea. It has a
Reverse Tapering

adds wings to your DRIVE!

Swing a Kroydon Hy-Power Steel Shafted Driver—and watch your ball sail away on a long, sweet drive that travels straight and true for the flag!

Now swing a Kroydon Hy-Power Iron—and watch your ball make a perfect landing.

The secret of Kroydon’s superior performance lies in the Reverse Tapering principle used in making the Kroydon Hy-Power Steel Shaft. This principle gives to the Kroydon Shaft the same pliable resiliently as in a perfect hickory shaft—puts the whip up near the hands, thus permitting longer, more accurate shots.

Lend your players a Kroydon Hy-Power Driver from your shop. Suggest that they drive around the course with it, and prove for themselves how it adds to their distance and control over the ball. You’ll be pleasantly surprised at how many additional Hy-Power Clubs and Sets you will sell as a result of these individual demonstrations by the players themselves.

What’s more, you’ll make a full profit on every Kroydon Club you sell! Kroydon’s Policy of Pro-protection prevents unfair competition and eliminates price-cutting—anywhere, anytime, by anyone. Ask your local representative to call, or write The Kroydon Company, Maplewood, New Jersey.

REVERSE TAPERING
Reverse Tapering
is a patented process, used exclusively in making Kroydon Hy-Power Steel Shafts for both Kroydon woods and Kroydon irons.

PROFESSIONAL BY
Kroydon CLUBS
tendency to cake, so you have to be careful in using it. It is the exact compound you find in manure.

If you want to develop an alkaline reaction, use nitrate of soda. If you don’t want to effect the reaction, use organics such as blood, etc. Nitrogen fertilizers can be applied on top, but organic fertilizers are better worked in.

There are several phosphate fertilizers; some are very readily available. All the super-phosphates are in that group. Some less available phosphates are ordinary rock phosphates which I wouldn’t advise you to use at all. Bone meal is slowly available. It is widely used. There are also very readily available phosphates, such as ammonium phosphate which go a long way; therefore use them with care. With phosphate fertilizers it is a good plan to work them in. If you are on the spot when they are preparing the greens, work the fertilizer into the soil about three or four inches. If you get it worked in it will have a desirable effect on the root system.

What should you use? You know your conditions. You have your fertilizer plans developed. Do not change until you have done some experimental work on the side. It would be foolish as you know now what results you are getting but you don’t know what you might get, if you change your plans. Apply a good fertilizer (nitrogen, potash and phosphate) on your greens and fairways once a year. If you haven’t been including potash, it would be a good plan to put a little potash on. Once a year at least give a complete fertilizer and the rest of the year follow what experience has taught you is good for your course. Carry out a few experiments as you go along.

I am wondering if some of you are not putting on too much fertilizer. It is easy because you take a fertilizer like ammonophos and it has a lot of plant food in a handful. The phosphate isn’t going to over-fertilize very much because it becomes fixed in the soil, but nitrogen might have some bad effects in making overgrowth. If you put on an excess of nitrogen you are apt to get a coarse growth. It is the thing that you have to watch the most.

Cleveland, O.—A galvanized metal shower compartment, fully equipped, that sells for $45 is being made by the Sanymetal Products Co., 1772 Urbana road. The compartment is finished in gray baked enamel. Further details will be sent on request.