Weeping Willows in the swales, I have found several of the tiles are stopping, on account of roots. When we find this we take them up and put in sewer tile with tarred bells, past the root system of trees, to keep them open.

On these courses we pump our water from a 9 acre lake.

During this past summer we had to pump water from our deep well at around 300 to 400 gallons per minute, 24 hours per day, for 90 days to hold the level of the lake, as high as we could. With all this pumping the level dropped around five feet. This was on account of the very dry summer.

We had around 70 to 75 days with hardly a trace of rain.

Having to use this lake water on our course was quite different from using the 55 degree water on the other courses. Poa annua on this course is quite a pest and causes plenty of headaches. I believe that if I had 55 degree water to use on this course a lot of the poa annua could be saved.

Since we don't have that kind of water we are, and have been for the last three seasons, aerating our greens, tees and fairways. On our fairways, we are converting them as quickly as possible to Highland bent. I believe that rather than worry and try to keep poa annua on our courses, the best plan would be to convert the fairways to one of the better strains of bent. This will take time but some of the fairways out there were sown originally to Highland bent and creeping red fescue and poa annua is no problem on them.

COURSE FOR TYPICAL GOLFER

(Continued from page 48)

Pinehurst strain of fine bermuda for the greens and regular bermuda for the approaches. Hand garden plows were used to plow furrows into which the stolons were placed and then covered when the next furrow was plowed. Planting the greens was completed on June 21 and the approaches on July 6. These areas received 1000 lbs. of 5-10-5 fertilizer per acre on July 12, and were then spiked with a rotary hoe, raked by hand to smooth and rolled. Lime was again applied on July 25 at ¾ tons per acre and Milorganite on July 27 at 800 lbs. per acre. On August 15 800 lbs. of 5-10-5 per acre was applied and then the greens were topdressed heavy and the soil worked in with scrape boards to smooth the surface. Spiking was done on August 22 and on August 31 Milorganite applied at 700 lbs. per acre. The final topsoiling for smoothing was done on November 29 and 30 before seeding the rye.

"Due to the late shipment of pipe for

March, 1952
the water system no watering was done until the middle of September when the installation was completed. In spite of this and the below normal rainfall all the greens came through good except for No. 9 which had to be replanted. This green is on a sand hill and gets the full effect from both sun and wind. Ditches for the pipe were first plowed with a two horse plow pulled by a tractor and then cleaned out by hand shoveling. Refilling was done entirely by labor except for packing which was done by tractor. Four greens and tees were supplied with water by running pipe from nearby lines on the other courses. The other 5 greens and tees were supplied from a new 4 in. line with laterals extending out to them. The 4 in. line was 1,414 ft. long and 2,598 ft. of other pipe from 1 1/4 in. to 2 1/8 in. was used. Skinner valves were installed in the tees for snap-in sprinklers and 1 valve was located at each green to be supplemented with a 50 ft. length of 1 in. hose with roller sprinkler.

Total Cost, $8,917.30

"Total cost for construction was $8,917.30. This included cleaning the roughs and immediate woods areas during the winter of 1950, as well as the supplies necessary to open the course. The water line cost was $3,704.82. Although not measured, there are about 18 acres in turf.

"The course was designed for the average golfer — to be easy and still provide interesting golf. Many favorable comments have been received from people who have played it. Maintenance expense was reduced to the minimum by the elimination of sand traps and of hand mowing except on the greens."

MANAGERS 25th CONV.

(Continued from page 62)

DeLuxe Club Saves Money

The manager of one of the most famous and exclusive midwestern country clubs told of all members being required to make lunch reservations before 10 a.m. and dinner reservations before 4 p.m. There are no menus, but buffets of two to four main items. It took the house committee about six months to train the members to get accustomed to club meal service on the general basis of that at a gold coast home but now all members like the system. The system accounted for changing from a $24,000 annual house loss to a $10,000 profit on $80,000 gross business.

Pension plans again were discussed. The
1952 OFFICERS

Page Curran, River Crest CC, Fort Worth, Texas, was unanimously elected President. Carl J. Jehlen of the Glen Ridge (N.J.) CC, was elected vp. L. Roy Leonard of the Cuvier Press Club, Cincinnati, Ohio, was re-elected Secretary-Treasurer. Directors elected for a three-year term were Clyde Mingledorff of the Atlanta (Ga.) Athletic Club, and Edward M. Grenard of the University Club of Detroit, Michigan. Elected for a two year term was Jack Fina of the Elmhurst (Ill.) CC. Elected for one year was G. H. Davies of the Kanawaki GC of Montreal, Canada.

clubs' help problem is accenting the pension matter.

Liquor handling systems, on the locker basis in territories where liquor regulations prohibit club over-the-bar sales, also were talked about with several interesting plans agreeable with local laws being outlined.

Mention was made of the bump clubs received when slot machines were outlawed. Now managers find that in most cases the machines trained the members to expect too much for clubhouse prices.

Minimum House Accounts Grow

Minimum house accounts were discussed as the answer to many cases of club operating losses. In some instances it was said that summer vacations of members prevented adoption of the minimum monthly charge. One manager reported that a $20 minimum monthly house charge brought members out in the winter and enabled him to keep his crew intact. Generally, experience with minimum house accounts was good.

A manager told how giving members free cocktails from 7 p.m. until 8 p.m. brought members to parties on time and saved help overtime charges. He said that the average consumption of free cocktails was less than two, and about a third of the members sip the cocktails then order highballs.

The tax complexities and variations got attention. Particularly discussed were voluntary payments by members such as to Christmas funds. The tax situation on honorary life members also was mentioned by several managers.

One of the touchy problems mentioned was that of under-age daughters and sons of members at parties. Managers were unanimous that no drinks should be served to the kids. If the parents ordered and the kids dipped in, that was up to the parents. Youngsters liven up the clubs, and wedding parties, especially, are features at clubs, so it's up to the parents to preserve home practices.

There was quite a bit of talk about floor coverings for locker-rooms and grills, particularly, with managers reporting sat-

---

TRY THIS "POLKA" ON YOUR CASH REGISTER!

For golf and other summer sports... and for wear with the colorful casual clothes that will be so popular this season.

Made of a feather-weight fabric, with satin lining and genuine leather sweat.

Grey, Navy or Red with White dots; White with Black dots.

PRICE: $15 per doz.

TERMS: 2/10 EOM

F.O.B. New York

WRITE, WIRE or PHONE — TODAY

March, 1952
Now Available!
WESTALL
RUBBER FLOORING
• PROTECTS CLUBHOUSE FLOORS FOR YEARS!
• LONGER-WEARING, TOUGH, FIRM!
• SO SMOOTH, SAFE AND EASY TO CLEAN!
• NO CEMENTING TO UNDERFLOOR!
• DOES NOT BUCKLE OR CRAWL!
• SMART APPEARANCE!
• CHOICE OF COLORS: GREEN, BLACK, SAND AND TERRA-COTTA!
• COMES IN ROLLS 57 IN. WIDE, 5/16 IN. THICKNESS, 29 FT. LENGTH!
• WE WILL CUT TO WIDTHS OF 2 FT., 2 1/2 FT. AND 3 FT — NO EXTRA CHARGE!

Write for Samples and Details:
HENRY WESTALL COMPANY
944-960 Merrimon Ave., Asheville, N. C.

HOW PRO FOUND PROFIT
(Continued from page 40)
winter and was able to get some handymen from the course force to do carpenter work, painting, repairing and general clean-up. As a result I got the shop in very good shape, carefully and for less than I had thought it would cost me.

The back of my shop never had been the way I wanted it, and it was getting more unsatisfactory with an increasing number of bag carts. We overhauled that.

Some showcases that were relics were taken out and an old man who had been working on the course in the summer built
me some counters, tables and shelving that made the shop much better looking, much more convenient and much easier to keep clean.

I was able to get some flooring repaired and dyed but had to order some new stuff and was able to get it without having to wait almost to mid-season like a lot of the fellows do. They don't realize that shipments these days are slow, although they should when they think of how long it takes them to get some staple merchandise.

The result of that planning and work was that I was able to spend a part of January and all of February in the south, after taking care of Christmas business, and came back on the job ready to go in high gear.

The members got talking about the "new" shop. They came out to look it over when spring rains made the course a swamp over weekends. I did the biggest spring business I'd ever had. Since that time I've continued to write notes of what I see should be changed and improved in the shop as I notice these things during the season. The notes are filed away and I go over them in November and get the work planned. Each spring the members see new life in the shop and it reminds them that I'm not just content to sit around and get by.

---

**Better... because it's vinyl**

Fast replacing other flags because vinyl can't be beat for durability, weather-resistance, color-permanence. Ask us about our whole line of...

**FINE VINYL PLASTIC FILM**
- special flags
- locker equipment
- shower curtains
- mower covers
- draperies and curtains, which may be silk-screened with club monogram

WRITE FOR NAME OF NEAREST DISTRIBUTOR

**PLASTIC FILM PRODUCTS CORP.**
58 W. EXCHANGE ST. AKRON, OHIO

---

**识别球童和客人**

这个方法简单而经济。当你有这些新的、多彩的和耐用的塑料物品时，它们是专为被各大高尔夫俱乐部接受而设计的。它们被设计成被接受和被接受的地方。

**多功能徽章**
防水、坚固。适用于球员或球童。直接写佩戴者的名字在塑料上。

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**结束高尔夫包混淆**

新！识别标签与链。独特的模拟塑料高尔夫球。标识空间在反面。

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** Griffin Golf Club **

**Caddy**

**302**

** Griffin Golf Club **

**Caddy**

**1007 Filbert Street**

**Philadelphia 7, Pa.**

**Philadelphia Badge Company, Inc.**

**Please send samples of Caddie Buttons ( ) Identification Tag ( ) Pennant Badge ( ). Our order is enclosed ( ).**

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March, 1952
1952 TURF CONFERENCES

THE 25th ANNUAL UNIVERSITY OF MASSACHUSETTS WINTER SCHOOL FOR GREENKEEPERS


Mar. 3-6—Turf Conference. Midwest Regional Turf Foundation and Purdue University, West Lafayette, Ind.

Mar. 5-7—Minnesota Turf Conference and Short Course, Curtis Hotel, Minneapolis.


Mar. 11—Lawn and Turf Conference, Campbell Hall, Ohio State University, Columbus.

Mar. 13-14—Univ. of Massachusetts Annual Turf Conference, Amherst.


SOUTHEAST APPRAISERS

(Continued from page 54)

Even with the amount of information on hand, the story is incomplete.

Most of the turf weeds which occur in the Southeast have been controlled by one or more of the herbicides now in use. Crabgrass has been controlled by the use of potassium cyanate, sodium arsenite, lead arsenite, and mercurial compounds. Potassium cyanate, sodium arsenite, and the mercurial compounds have also given good control of goose grass or crowfoot, Egyptian crabgrass, and other weeds. There is a great need, however, for materials or methods which will yield selective control of nutgrass, Dallis grass, and sandspurs. Poa annua is regarded both as a welcome gift of nature and as a weed. As long as such attitudes exist, methods for the control and management of Poa annua are needed.

As in other sections of the United States, disease control is quite a problem. We simply do not know enough about the organisms causing the diseases. Disease control will continue to be difficult unless we concern ourselves with the fact that the field of turf is lacking in fundamental knowledge of disease organisms. Good results by the use of the many chemicals now available should not be expected as long as control measures are aimed at the symptoms or damage of the disease rather than the organism. In each region the need is great for basic facts about diseases.

Insect control has been adequate and, apparently, continued success is in sight. The lime and fertilizer requirements of southern turf grasses has been extensively studied. Various organic and inorganic sources of nitrogen have been tested for turf production. The establishment and maintenance of our best southern and cool-season turf grasses has also received attention. Research has paved the way for the first centipede grass seed production and distribution. Replanting greens with improved Bermuda types has been facilitated by the use of methyl bromide.
The problematical pivotal period of southern turf production—Bermuda to rye grass and rye grass to Bermuda—has been eliminated by the use of improved Bermuda grasses. More management studies are needed, however, for the superintendent who maintains common seeded Bermuda grass greens.

An organic material for topdressing has been produced. After composting for one year a mixture composed of one part sewage sludge, three parts old pine sawdust, six parts sandy loam, and 15 pounds of calcium cyanamid per cubic yard has, apparently, been satisfactory for turf production. Data is needed, however, on the significance of properties given to a soil by the use of this and other materials.

Turf cultivation has received a lot of attention in the past few years. It is true that the theoretical aspects of this new turf field are encouraging. Do we know, however, that it is beneficial or economically worthwhile to place fertilizers in the soil root zone? At what compaction levels do the movements of oxygen, carbon dioxide, and water become limiting plant growth factors? Will all grasses respond alike to heavy compaction? What effect does soil type have on these questions and root penetration?

Programs of breeding and selection of better turf grasses have been in progress for several years. Fruitful products have been obtained and the future looks promising. Tifton 57 Bermuda grass has been found to be superior to common seeded Bermuda and many strains found on golf clubs in the Southeast for putting green purposes. It is of interest to note that Tifton 57 is also being used for lawn, tee, and fairway turf. Better textured Bermudas for putting greens are on the way.

A two-year course in turf management is being offered for the first time in the Southeast by the Abraham Baldwin Agricultural College, Tifton, Ga. Consultation services to golf clubs and periodic publications are not an adequate medium of extension. More personal contacts need to be made with the turf producer.

Is Future Secure?

Recently our government established a freely-operating committee which has the responsibility of channeling scientists and basic scientific research into fields which need strengthening or advancement. Thus, it was recognized that the United States was falling behind in its basic scientific facts. The only solution was to prevent certain fields from becoming overloaded and to give scientists free movement, support, and time to solve basic problems.

We are concerned with a field of agri-
LEYINGS-VELVET TOUCH PUTTERS

Write for Price List of the Putter Line most used by the Pros who make a living playing golf, along with other golf equipment items of quality.

ACME GOLF & TACKLE CO.  
(Formerly Berner Co., Inc.)

1031 NORTH ALVARADO STREET - LOS ANGELES 26, CALIFORNIA

culture that has, in part, been parasitic on advances in other agricultural fields. Basic facts have been borrowed and applied to turf production. To date some of these have worked fine, but it should be realized that turf cannot build its future on borrowed research. Turf research personnel should be given an opportunity to spend more time trying to discover basic facts.

If we were pessimistic about the future of Southeastern turf, we might feel as the philosopher, Bertrand Russell, who said that, "The future must be either much better or much worse than the past—which it is to be, we do not know, but those who are young will know before long." Progress to date, however, leads one only to conclude that Southeastern turf has a definite place in developmental agriculture.

DAVIS HOLDS ANNUAL PARTY

One of the most successful group gatherings in Chicago district golf circles is the annual spring Open House of the Geo. A. Davis organization. This year's Davis "open," according to Oscar Borgmeier, v.p., set a record for entries, with golf club officials and superintendents throughout Illinois and bordering Wisconsin and Indiana attending the Feb. 21 event held at the company headquarters at 5040 Northwest Highway. The golf course equipment and supplies, always attractively displayed, got sharp focus attention from a continuous flow of guests. Needless to say the oyster, sandwich and other bars were not overlooked. Missed, was George Davis whose grounded plane delayed his return to Chicago.

Rickey Elected to Sports, Inc. Board Advisory Committee

Robert D. Rickey, sales manager of the golf professional division of Sports Products, Inc., (MacGregor Goldsmith and MacGregor Golf) since 1948 has been elected to the Advisory Committee to the Board of Directors of the parent company and named to the Board of Directors of MacGregor Golf Co., it has been recently announced.

Rickey started with MacGregor his first year of high school when he worked in the

AUTOMATIC TEE NEWS

AUTOMATIC BALL DISPENSER NEWS

Both Ready for National Distribution

The Most Perfect, Simple and Completely Automatic Tee Yet Devised

Positive Operation
No Way to Jam
Low Cost Operation
Needs Oiling only Twice a Season

Fully Guaranteed
Time and Weather Tested
Sensational Low Prices
Orders Shipped Within 10 Days

Golf Ball Dispenser holds 3,000 balls and will dispense predetermined number

Write for Demonstration and Prices.

ELECTROMATIC TEE CO.  900 - 29th St., Des Moines 12, la.
shipping room and has continued in some capacity since that time except for a tour of duty with the Army in World War II. Upon his return from the war he became purchasing agent. In 1946 he was named advertising manager and in 1948 stepped up to his present position.

GEORGE DAWSON NAMED NATIONAL SALES MANAGER FOR SPALDING

George Dawson has been named national sales mgr. of A. G. Spalding & Bros., Inc., according to a recent announcement by L. E. Coleman, Spalding v-pres. in charge of sales. In addition to having charge of the company's national sales, Dawson will assist in merchandising various Spalding products as well as assisting in the establishing of sales policies, sales and expense budget, and advertising planning. Previous to this appointment George Dawson was assistant to C. F. Robbins, pres. of Spalding.

STRONG 1952 AD PROGRAM TO HELP INCREASE SPALDING DEALER SALES

In reviewing Spalding's 1952 advertising plans for company representatives throughout the country, Harry Amtmann, ad mgr., used a novel presentation entitled "A Million Miles and 3 Feet", based on the fact that their company salesmen cover that amazing mileage, and more, each year to get Spalding merchandise on their retailers' shelves. The pay-off is the close gearing of Spalding's 1952 advertising to the job of helping the golf pros and their other retailers speed the movement of

RANGE OPERATORS — INCREASE YOUR BUSINESS WITH BES-TTEE

at a price you can easily afford.

Just think! The sale of only one extra bucket of balls per day will pay for a tee in one season. And remember—the rugged construction of the Bes-Tee assures you many seasons of dependable, trouble-free service. Here are some of the advantages that make Bes-Tee the "best tee" for all ranges:

1. Primarily designed for ground installation but ideally adapted to platform use.
2. Mechanically operated.
4. Simplicity of operation.
5. Individual ball control guards against clogging, locking or jamming. Smooth, positive delivery.
7. Tee adjustable to desired height—absolutely tamper proof.
8. New hopper (patent pending)—revolutionary, magazine type, positive delivery.
9. Rugged construction assures years of dependable, trouble free service.
10. Guaranteed for one full year against defects in material or workmanship.

For Further Details, Write, Wire or Phone:

KEAST ENTERPRISES, INC.
Lake Zurich, Ill. Phone: Lake Zurich 2327
Distributor for BES-TTEE Mfg. Co., Lake Zurich, Ill.

Eastern Representative
EASTERN GOLF COMPANY
2537 Boston Road, Bronx 67, N. Y.
Phone: Kingsbridge 7-2506

March, 1952
R. H. Tractor
Wheel SPUDS
quickest to put on or take off. Increase tractor efficiency and cultivate turf . . . that's why more than half the U.S. and Canadian clubs use them. Durable and low priced. Sample spud and circular on request; advise make of tractor and purpose for which intended. Immediate shipment. If your Ford or equipment dealer cannot supply, write direct to
R. S. HORNER
Geneva, Ohio
MFR. OF SPUDS, FORD-SON WHEELS, ETC.

Immediate shipment.

Use
WEEPANOL
2 4-D Formulations
For Lowest Cost Weed Control
Ask Your Dealer
ASSOCIATED CHEMISTS, INC.
North Collins, N.Y.

For Greens and Fairways that KEEP their
Beauty
SOW
WHITNEY SEED
Sowing Whitney's Super-Refined Lawn Seed keeps greens and fairway turf greener and tougher season after season. Highest germination, lowest weed content, blended from the world's finest grasses . . . There's a Whitney mixture for every golf course need. WRITE:
WHITNEY SEED CO., INC., Buffalo 5, New York

merchandise across the three feet of counter space between the retailer and his customers. To close that important last three-foot gap with a sale, the Spalding consumer campaign is aimed at every age group employing youth magazines, college newspapers, specialized sports publications including GOLFING, general magazines and newspapers, with a combined consumer impression exceeding 165,000,000. In addition will be point-of-sale displays, catalogs, Spalding Sports Show books, sports films and sportscasting of the National Tennis Matches. All told the 1952 program will add up to over 220,000,000 messages to encourage golfers and other sportsmen to say those three important words "I'll buy it" and move Spalding golf and other sports equipment those last three feet across the counter into the customers' hands.

HARPER NOW VP, SALES MGR., PROFESSIONAL GOLF CO.

Chandler Harper, 1950 PGA champion, and widely known as a club and tournament pro, has joined Professional Golf Co. of America, 1233 Carter St., Chattanooga, Tenn. Harper has bought an interest in the company and joins Ewing Watkins, pres., as vp and sales manager of the First Flight line of clubs.

Harper succeeds Jack Harkins as vp and sales mgr. Harkins recently was elected pres., Lime Cola Co. He retains connection with Professional Golf Co. as treas. Harper, pro at Elizabeth Manor CC and Glensheallah muny course, Portsmouth, Va., will play in a few of the tournaments this year.

Buss Walker, sports columnist of Chattanooga Times, recently devoted his column to an interview with Ewing Watkins on the company's experience in custom-making clubs.

GOLF BALL AND CLUB SALES IN 1951

Report of the Golf Ball Manufacturers' Assn., which includes all leading makers of golf balls, shows 2,440,644 dozen balls sold in 1951. Golf ball sales for the 1950 season were 2,886,796 dozen. Korean war scare buying in 1950 accounted for the larger ball sales of that year, golf play being about equal both years. As existing golf courses are playing close to capacity, more courses are needed before the sale of golf balls, clubs, bags, etc. can show appreciable increase.

Golf club sales, according to figures submitted by the members of the National Association of Golf Club Manufacturers, totaled 3,371,631 clubs sold between Nov. 1, 1950 and Oct. 31, 1951. 2,331,637 of these were irons and 1,039,994 were woods. Member companies of the Assn. expect to handle normal customer requirement this year.