Drainage Still A Defect at Many Courses

By WILLIAM LYONS

You have heard many stories about the "hick" farmer. But to us all "hicks" are not farmers. We were laying hundreds of feet of 4" and 6" drain tile and a "city hick" came up and said, "Gosh, you guys are going to have a heck of a time finding all those to take them up this fall."

There are many city men who do understand the value of drainage. There are so many farmers who do not that the Department of Agriculture through the Soil Conservation Service has been paying farmers up to 48c a rod $(16\frac{1}{2})$ ft.) for putting in drain tile.

In most sections of our nation spring and early summer rains were excessive, so much so that even the city boys saw the need for drains in spots they never saw before. They are now drainage-conscious.

On the other hand a member said to me, "By the time you get the place drained, it will be so hot and dry you'll wish you hadn't drained it."

Now let's get everyone straightened out on the value of a drainage program for fairways.

First the "city hick" has to be told how tiling is a permanent installation. That the John Johnston tile job of 1835 near Geneva, New York, is still functioning.

As a publicity stunt we cut across a fairway on a Saturday afternoon and Sunday and the members had to play thru, over and around us. To many it was their first "look-see" at a tiling job.

It also gave us a chance to correct the misconception that "you won't need 'em when the weather is hot and dry," by showing our people how short rooted grasses are in wet places, and that short rooted grass is short on green color when periods of drought come.

One member said, "Why is this condition worse now than in past years?" That's a good sensible question.

There are mainly three reasons why drainage and more drainage is and will be needed on golf courses.

When the course was a farm the farmer planted every third or fourth year a long rooted crop, like alfalfa, clover, and corn. When the roots died, holes down deep into the subsoil were left and became water channels. Now those holes are filling up and no new ones are being put down.

The second reason is mowing fairways with heavy equipment when the soil is on the wet side. It has to be done and yet we are working against nature and are compacting the soil so that water and air enter very slowly.

Some fairways have had earthworm eradicators applied. This means less water channels into the subsoil.

These are enough facts to make it plain that we do have a problem. We must find a solution.

Most golf courses are now in Soil Conservation districts. If you don't know about your district find out from your County Agricultural Agent. Then find out if the S.C.D. has a drainage engineer. Then see if you can't hire him to make you a Master Drainage Plan. He will know, with your aid as greenkeeper, where to locate outlets, main lines and laterals. Sizes of tile, and depth of maximum efficiency based on your soil type. Let me warn you not to hire just any one who can squint thru a transit to do this job.

If you're stuck, call in a Drainage Engineer from your State College. Don't expect that as a greenkeeper you are necessarily fully qualified as a drainage engineer. If you are, you're lucky. Other courses have drainage problems too and should be glad to pay you or any other expert for the answers.

How about cost? Can your club afford it? Or, can you afford not to?

On the publinx when there is no play, there is no pay, some of us are learning too well. There is one course in our vicinity for sale, cheap, because few care to play it and lose balls, or play from footprints or tractor wheel marks.

To get a good play a course must be dry enough to open up on the first warm day in March, in our area. Otherwise the boys go to the drier course and get the habit. Consequently, season players are lost to the course, the pro shop and the concession stand.

On the private course it hurts a member's pride to say, "Our course was closed Memorial Day—too wet!" It hurts your pro shop, clubhouse and even the one-armed bandits don't do so good.

Drainage is one of those things your club will pay for many times over if you don't do something about it now!

Bismarck, N. D. Course Brings New Beauty To Its Area

First 9 holes of Bismarck (N.D.) CC new 18 hole course designed by Robert Bruce Harris recently completed represents a successful demonstration of converting an area into a beauty spot for the entire community's visual enjoyment as well as a pleasant and interesting course for members.

The course is further distinguished by plenty of ground being provided by the club. Of the 320 acres of club property about 200 is used for the golf layout. The course is built in a valley through which a creek meanders. Not only soil conditions but the high winds dictate use of the valley area. Only the first and tenth tees are built above the rich soil of the valley.

Location of the course in the valley presented a problem of placing greens where spring floods won't damage them. Most of the year the territory is very dry but by a dam in Apple creek which provides numérous natural hazards enough water will be retained to supply greens, fairways, tees and the 1834 trees which have been planted to transform a rather barren area into a garden spot.

Greens are quite large; the putting surfaces averaging 7000 sq. ft. Area of the

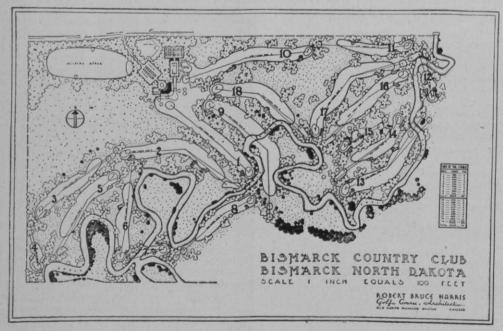
tees is almost equal to that of the greens. Length of the course is 6200 yds. normally but can be stretched to 6500 yds. Par is 72. Area of the tees permits changing of tee markers to give great variety to the tee shots.

The entire course was designed to eliminate practically all maintenance hand labor. All mowing will be done by power equipment and all areas except the greens can be mowed with fairway mowers.

Greens, tees and traps are of streamlined design with long, gentle slopes fitted into the natural topography of the course and facilitating use of fairway mowers. There are only 19 fairway traps on the course.

Drainage was a particular problem. Drainage design had to consider valley location but make sure that play wasn't curtailed by spring floods. The location and design of the dam and reservoir was a major factor in solving the problem.

Extensive study of soil samples and weather reports were made before preparing seeding and fertilizing plans. The tree and shrub selection and planting job was another subject of considerable research and study. Hot dry summers with heavy winds and severe winters provide extremes



of climate. Tree location was made rather irregular to look natural but was coordinated nicely into golf architecture.

A large and attractive practice range is located very handy to the clubhouse. Grounds architecture also provided for softball diamond and other recreation areas for caddies awaiting assignment.

Very interesting use has been made of the meandering Apple creek in presenting problems for the players and of alternate tee locations to require exacting shot placement for championship play or allow a lot of leeway for ordinary play.

ROW RAGES ABOUT JERSEY COURSE PURCHASE

Opposition to proposed purchase of Essex County CC west 18 at West Orange, N.J. for \$237,000 and use as a public course has developed into biggest public course row of recent years. Course at present is being used as fee course.

Some taxpayers protest purchase by Essex County Park commission saying course at present provides golf facilities as a business and conflicts with non-business detail of zoning regulations. N.J. Publinx assn. does not favor the purchase although saying district is far short of needed golf facilities. Assn. maintains a new course could be built for less money.

Essex Parks GC, public course players, headed by John Martin, are active group and have been advertising in newspapers their protest against increased new rates asked at Hendricks Field and Weequahic. The Parks golfers claim old fees were adequate for maintenance. Their campaign has brought out that from 1914 to 1946 Essex County Park commission collected \$1,096,679 in golf fees.

Martin as head of N.J. State Publinx assn., together with other officers of the organization, also advertise asking that publinx golfers petition Gov. Alfred E. Driscoll requesting \$1,000,000 from racetrack breakage to be distributed to 10 counties for public courses.

From Moultrie, Ga. comes news that a new nine-hole golf course described as "one of the most picturesque and interesting layouts in the country," has been opened to the public... Built under the supervision of Hugh Moore, pro-manager of the local Bowden Municipal Golf Course it has been under construction for more than two years... Hugh reports that this fine layout is not one of those easy affairs, but a real championship test, stretching 3,300 yards over a 200-acre tract of rolling land, situated on the Moultrie-Thomasville highway, three miles from Moultrie.

MELFLEX DRIVING MATS



Driving Range Operators say the new Melflex Mats are the finest ever

The surface material is the toughest obtainable—the same as used in the tires of heavy bombing planes. That means long lasting service. Experienced range operators cooperated in their outstanding features of design and construction. That means utmost player satisfaction and maximum maintenance economy.

For 16 years Melflex underfoot surface products have safe-guarded the traffic of millions daily. That means sure-footed safety in all weather for your players.

Full 1 inch thick; will not warp or fray; reversible to provide four different driving areas.



MELFLEX ALL RUBBER MOLDER TEE

A "must" for the modern range. A player delight that speeds up play, saves peg tee costs and tee line litter. Easy to install and replace — will not mar clubs. Write for literature and prices on these Melflex leaders. Prompt deliveries.





Quick, easy handle-adjustment and patented rotary agitator assures uniform distribution of seed, fertilizer or chemicals. Set for any amount per square ft. Saves material and labor costs. For really blanketsmooth distribution, insist on the genuine MASTERS. Your supplier will gladly demonstrate this time and money saving tool, or write us for detailed literature.

DISTRIBUTES
ALL COMMERCIAL
FERTILIZERS

GRASS SEED

SAND * LIME

LEAD ARSENATE

MANY OTHER

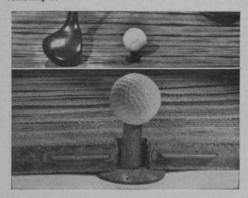
40 YEARS OF EXPERIENCE

MASTERS PLANTER COMPANY MASTERS BLDG., BENTON HARBOR, MICH.

KOSAR PANGE TEE

The THRIFT TEE for Driving Tee Mats

Increases range income by speeding up play 25% to 40% ★ Easy convenience adds to player enjoyment ★ Saves peg tee waste ★ Eliminates broken tee litter and cost of removing it.



SEND FOR A FREE SAMPLE

Test it for its easy, sure tee-up, its practical design and sugged durability.

KOSAR'S GOLF DEVELOPMENT LAB.

634 W. Portage Trail

Cuyahoga Falls, Ohio

REMOVAL OF 2,4-D FROM SPRAY EQUIPMENT

Cases of injury have been reported resulting from the use of spray equipment which previously had been used in applying 2,4-D.

After using equipment with 2,4-D fill the tank with water, rinse, and drain.

Then fill the tank with water and add household ammonia using one gallon to each one hundred gallons of water. Circulate this solution through your pump and lines to wash them out.

Let this stand about 24 hours, then drain and rinse the entire equipment twice with clear water.

For spraying small areas it is strongly recommended that, where practicable, one piece of equipment be set aside for the application of 2,4-D. The slightest trace of 2,4-D left in the equipment may be sufficient to seriously injure roses and other plants which are very sensitive to it, when the equipment is used for treating them with insecticides or fungicides after having been used for the eradication of weeds in turf.

-Heart of America Turf News

Biggest winner in the history of the Western Open, held at Salt Lake City Country Club, was Walter Hagen, who won five titles in 16 years. The Haig won his first Western Open in 1916, repeated in 1921, 1925 and 1926 and added his final title in 1932.

GOLFCRAFT BEATS THE HEAT

In the "cool of the evening" with the temperature hovering around 100 degrees, even at Fox Lake, Ill., Golfcraft, Inc.'s personnel and their families held their annual picnic at the Yacht Club Bohemia.

Left to right: Ralph Guldahl, who heads Golfcraft's advisory staff; James Heddon's Sons' pres., John Heddon, Dowagiac, Mich.; Howard Martinsen, production manager, Cornell Forge Co., Chicago; E. R. (Ted) Woolley, Golfcraft, Inc., pres., and Bob MacDonald, also of Golfcraft's advisory staff and pro at Chicago's Edgewater GC.



NATION-WIDE HIGH SCHOOL PROGRAM IS LAUNCHED

John Griffith, publisher of Athletic Journal, 6858 Glenwood Ave., Chicago 26, Ill., is prime mover of a nation-wide campaign to conduct golf tournaments for high school boy and girl students.

The campaigns are to be conducted locally and have the backing of the National Golf Foundation as well as the sponsorship of the Athletic Journal.

In announcing the program Griffith says:

"The tournaments are to be only intramural and in no way are the winners to be matched against those from other schools, either in actual play or by comparison of scores. Every state has excellent organizations to govern interscholastic play and many excellent state golf tournaments are held. This program is only designed to encourage the inclusion of golf in the physical education program on an intramural level.

"There may be either a boys or girls tournament or both, depending upon the local situation. The tournaments may be conducted in any manner desired, although it is recommended that match play be used as affording the greatest interest to participants. It has been suggested by numerous coaches and physical education instructors that for the finest test of golf all girls' matches be eighteen holes and the same for the boys with the exception of the final round, for which thirty-six hole matches are recommended.

"The greatest obstacle to growth of scholastic golf has been the lack of facilities. It is here that the National Golf Foundation, through its contacts with club managers and club professionals, can be of inestimable service. Through GOLFDOM Magazine recommendations will be carried to every golf club in the United States, urging that their facilities be made available for this endeavor. Furthermore, the United States Junior Chamber of Commerce, vitally interested in golf for the youths of the community, has offered to aid in securing suitable courses for the tournaments. It is suggested that golf clubs or municipal golf course officials in

your community or surrounding locality be approached for discussion of plans.

"As an aid in conducting the tournaments, draw cards with other material including information as to methods of seeding and arranging byes will be sent to you.

"As a reward to tournament winners and as a further incentive to increase participation, attractive pins will be included for the winners of both the boys and girls tournaments. These pins, while expensive in appearance, will not be of such monetary value as to conflict with scholastic eligibility rules.

"To assist in conducting this tournament program an advisory committee has been formed consisting of: Herb Graffis, Editor, Golfdom and Golfing magazines; John Griffith, Publisher, "Athletic Journal"; Eldon I. Jenne, Director, Health, Physical Education and Recreation, Portland (Ore.) Public schools; Glenn Morris, Director, National Golf Foundation; Robert J. Strauss, Supervisor of Golf, Public Recreation Commission, City of Cincinnati.

"Tournaments may be held any time during the school year 1947-1948. Schools that also conduct fall golf programs may run two tournaments both in the fall and spring, if they so desire."

Score sheets as well as prizes are being supplied to schools by the Athletic Journal.

Griffith's reference to GOLFDOM recommending to club officials that courses be made available for these competitions under supervision of the high school athletic department is not only confirmed here but we'll double anything he could say in this respect.

Encouragement of high school golf is plainly foresighted on the part of club officials, members and pros. Not only the future of the game calls for early development of keen interest and playing ability of youngsters but the current need of caddies fully warrants cooperation to the fullest extent with high school athletic departments.

C 19 CONGRESSIONAL STOLONS

For the benefit of our friends in Iowa, Nebraska, Missouri and Kansas we have planted a branch nursery at Farmington, Iowa, of the Congressional strain of creeping bent grass. First crop ready Sept. 1st.

Make all inquiries to

Old Orchard Turf Nurseries
OX 350
R. R. BOND, Prop. Madison 1, Wisconsin

THE GREENS ARE THE FOUNDATION OF ALL SUCCESSFUL GOLF COURSES

September, 1947

Protect Your Greens and Fairways

These traps are easy

to set. Instructions are

provided with each.

VICTOR MOLE TRAP

This quick, efficient spear and plunger type trap harpoons moles . . . kills them instantly. Victor Mole Trap is equipped with six sharp, prong spears. Finished with rust-resisting coating. Extreme length when sprung, 1634".

Out O'Sight Mole Trap

For use in sandy soil. Effective scissors jaw type. Heavy malleable iron construction. Setting levers furnished. Height, 8½"; jaw spread, 2¾".

Order from your supply house

Animal Trap Company of America Lititz, Pa.



PROTECT GREENS

from destructive DOLLAR SPOT BROWN PATCH · COPPER SPOT with

PURATURF

• Years of experimentation have shown the value of PURATURF as an effective liquid organic turf fungicide. Keep your lawn and turf in good, healthy condition by using PURATURF regularly. EASY TO USE: No special equipment necessary. Simply mix with required amount of water, stir, and apply as directed. Send for details.



ANNOUNCING - PURATURF 177

The new ORGANIC CADMIUM turf fungicide which gives such outstandingly successful results, A wettable powder, for dry mix or spray. Now available. Write for details.

Distributed by
NIAGARA SPRAYER AND CHEMICAL DIVISION
FOOD MACHINERY CORPORATION
Middleport, N. Y.

Manufactured by
GALLOWHUR CHEMICAL CORPORATION
New York, N. Y.

GREENKEEPERS' WARTIME JOB WAS POSSIBLE HANDICAP

By Arthur Boggs

The golfer who was out of the country or laid off the game during the war found quite a surprise when he renewed his play. He discovered that the course is in good shape, in fact probably kept its condition much better than his own swing did during the lay-off of war years.

If he thought about the course at all he realized that somebody must have done a lot of work on it to keep it from showing signs of deterioration.

The war did teach the greenkeeper many things. It taught him how to improvise more than he ever had before. The labor situation was worse at golf clubs than in industries where big wages were being paid.

Still the work had to be done on the course. The greens had to be mowed, top-dressed and watered. The fairways had to be mowed, watered and sometimes fertilized. The usual problems of maintenance existed and those golfers who continued to play were about as exacting as ever.

If the greenkeeper was over draft age the work gradually fell heavily on him as the help left, one by one, for military service or work in war plants.

If the greenkeeper left too, then the job had to be taken over by some old-timer on the force who did the best he could.

As a result the greenkeeper had to dress and act as a laborer. He couldn't do all the work that was required and remain well-dressed. That's when members and officials got in the habit of thinking the greenkeeper was just an ordinary sweating grass mower and it may be that the greenkeeper too got out of looking and acting like a superintendent with plenty of supervisory and other responsibilities of an expensive and complex plant.

The greenkeeper in the war years at many clubs did the work of five men and a horse and regardless of the budget kept the course in pretty good shape. But nobody can expect that abnormal condition to prevail in the postwar period.

It looks in some places like the green-keeper spoiled things for himself by working himself ragged for his club during the war years. But at any club where officials are experienced, observant and have an element of gratitude the adjustment of the greenkeeper to his proper rating as an expert manager of a course has been made without difficulty or misunderstanding.

L.A. Golf Big Business

(Continued from page 31)

60 feet and the other from 50 to 80 feet. Two storage tanks on the steep mountainsides near the courses supply sufficient pressure by gravity.

The golf courses must supply three men to assist in maintenance of the pumping stations so that the cost of the water includes a varying degree of \$12,000 or \$15,000 yearly for electric power and about \$9000 for labor, or a figure of \$25,000 maximum yearly for water, which is used for all purposes on the course and clubhouse. There are 523 acres under cultivation in the golf course area.

Fairways are moved twice weekly during the peak growing season of April-May-June and cut once a week the rest of the year. The cutting level is one inch.

Greens are mowed Tuesdays, Thursdays and Saturdays the year around, with the cutting level one-quarter inch. Greens are watered the same nights as fairways on the 18-hole courses, with no watering on week-ends.

A compost pile of grass cuttings, leaves and manure from the L.A. zoo at Griffith Park is maintained and used to topdress greens twice a year. Commercial fertilizer and ammonium sulphate are used on the greens.

water from two wells in the park, at one ways are meadow fescue, red top and bluegrass. Bermuda now comprises 15 percent of all fairways but is not regarded as harmful so long as it is kept out of greens. It provides a hardy fairway surface, but is dormant in the winter.

> Bermuda is kept out of the putting greens, where the edges of the green are peeled back and the Bermuda runners pulled out of the sod and their roots dug out with large earth plug removers. Fifteen hundred feet of nursery sod are maintained for replacement on greens where Bermuda or other reasons require removal of whole sections of sod.

Division of Work

Greenkeeping duties are divided among the senior gardeners, seven of whom are assigned to upkeep of the greens with each man held responsible for certain greens. Two other senior gardeners have the status of gang straw bosses, one supervises work around the clubhouse and one maintains the pitch and putt course.

One of the gardener caretakers has the responsibility of placing pins and tees for all play, including tournaments. The Los Angeles city men's championship, played on the Wilson course, annually has from



GIVE YOUR GOLFERS A BREAK! Use this modern, efficient Golf Ball Wash... Absolutely harmless to paint... Positively no odor under any conditions... Avoid complaints about smelly soaps and damaging chemicals by using fast, safe and economical Liquid Lustre Golf Ball Wash... Use only one tablespoon per ball washer. Price \$4.50 per Gal.

Order from your Dealer or direct from us.

D B A PRODUCTS CO. Dept. GD3 DEERFIELD, ILL.

* * (Golf Supply Dealers write for complete details)

September, 1947

300 to 400 participants. The women's city championship is also played at Wilson with about 100 players.

Green fees at the Griffith Park courses are as follows: 18-hole courses, \$1, replay 50 cents; 9-hole course, 50 cents; pitch and putt course, 40 cents, replay 30 cents; monthly ticket \$5 not good Saturdays, Sundays or holidays.

Foursomes are started every six minutes, being called to the tee by number from the starter's window over a public address system and with the number of the foursome which is on the tee being posted near the gate where green fee tickets are checked. This checker also collects for caddie carts.

Reservation System

Saturday, Sunday and holiday reservations are made five days in advance (Monday morning for Saturday). The starter's window normally opens at 6 a.m. and at that hour on Mondays and Tuesdays a lineup of 60 or more players is usually ready to seek starting times for the week-end.

Reservations for week-end times are made on an alternating basis between a telephone call and personal request, so that the starter takes down a name from one of those lined up in front of his window, then answers the telephone and registers one foursome. One player may register for one foursome only. By 7:30 on Mondays and Tuesdays the complete Saturday and Sunday starting sheet is filled.

No permanent Saturday-Sunday reservations are made.

Tournaments of business houses, clubs, etc., are scheduled for week-days only, when they are allotted a necessary bracket of starting times.

The courses are open from 6 a.m. to 6 p.m. on week-days and at 5:30 on Saturdays and Sundays, or earlier in season with a starter on hand as soon as it is daylight.

There are two concessionaires at the Griffith Park clubhouse.

Prior to this year the professional had the driving range and caddie cart concession but in his new contract both of these reverted to the city's management. He has exclusive teaching rights.

The dining room-grill concession (beer and wine may be sold but no hard liquors) is handled on a basis of \$500 monthly rental and 10 percent of the amount of net sales over \$5000 monthly.

Golf "Traffic Cops"

One of the most unusual and effective stunts used at the Griffith Park courses is the employment of two starters as patrolmen on the course. Riding three-wheeled motorcycles, these "golf traffic cops" are literally that. One of them is a former motorcycle police officer.

They patrol the courses, seek to keep play moving, remind players to replace divots and do it themselves on occasion, keep unregistered players off the course, and take emergency calls to physicians and other professional men on the course. They call in to the starter every hour from a telephone on the course (both Wilson and Harding 18-hole courses run out from the clubhouse with the 9th holes at different points on the courses) to receive emergency calls for players.

LIVELY PRO DEMAND FOR FOUNDATION'S NEW LESSON BOOK

Orders from golf professionals, schools and colleges for quantities of the new revised 1947 edition of GOLF LESSONS, announced in the May issue of GOLFDOM, have established a record unprecedented in the history of The National Golf Foundation publications.

Published by the Foundation on a nonprofit basis purely in the interest of the game's development and pro promotion purposes, the book is generally conceded by

ROBERT TRENT JONES

Member: American Society of Golf Course Architects

> Golf Course Architect

20 Vesey Street Tel: Rector 2-2258 NEW YORK, N. Y.

When it is GOLF PRINTING!

Specialists, for years to many of America's largest and most exclusive courses, can best serve you, too.

Score Cards - - Charge Checks Greens Maintenance Systems Caddie Cards - - Handicap Systems Forms for Locker and Dining Rooms and for the Professional.

Samples to your club for the asking.

VESTAL CO., 703 S. La Salle, Chicago

pros to be the most potent golf lesson stimulator yet to be made available. Although this new edition on golf's fundamentals only came from the press in May. pro and school demand for copies to be distributed to club members and students necessitated early printing of a second edition which already is nearing depletion.

Pros desiring complete information as to prices at which quantities of the book, bearing the pro's name imprinted on the front cover, may be obtained, should write In-struction Aids Division, National Golf Foundation, 407 S. Dearborn St., Chicago 5. Ill.

CHEMICALS REMOVE CRABGRASS

Heavy coverings of crabgrass may be effectively removed just as seed heads are formed, by applying sodium chlorate. An application of two and-a-half pounds of this material to each 1,000 square feet, applied either in spray or dry form, has checked this undesirable grass on Pennsylvania fairways and enabled the reseeding program to be started in two weeks after the application of the chemical.

Chickweed, crabgrass in the seed head formation stage, and other weeds unaffected by 2,4-D, may be removed by applications of sodium arsenite. arsenite will assist also in checking clover and Poa Annua prior to and at the time of reseeding, so that the establishment of new seeding is accomplished successfully in areas where they would otherwise be smothered by clover or Poa annua. A most desirable factor in favor of sodium arsenite is that seeding may be done either at the time of application or immediately afterwards.

Western Amateur to be played at Wichita (Ks.) CC in 1948. Dates to be announced.



18-year-old Bob Buchanan, winner, national lefthanders tournament encouraged by father-caddie, V. L. Buchanan, Indianapolis who flew to Chicago hanan, Indianapona each day of tournament play. —Acme photo

SPALDING SALESMEN MEET-Spalding's salesmen meetings this year at Chicago and the Chicopee plant cover a schedule from July 14 to Sept. 11. This year, in addition to usual type of program on manufacturing and merchandising of Spalding goods special accent is being put on merchandising and selling.

THE PERFECTION SPRINKLER CO., Ann Arbor, Mich., again is manufacturing the ONE-MAN PROPORTIONER. This unusual device is used for applying chemicals and fertilizers to greens and is considered a great time saver by many greenkeepers who have used it.

Consisting of an oversize "hot-water bag" with a hole to fit over the head, the concentrated solution of chemical is mixed with water from a hose in a specially built mixing nozzle. Since no pump or tank is used the device is light and compact.

Wartime conditions have prevented the use of natural rubber until recently, but limited quantities will be available this year.

ALFRED H. TULL Golf Course Architect

420 Lexington Avenue NEW YORK 17, N. Y.

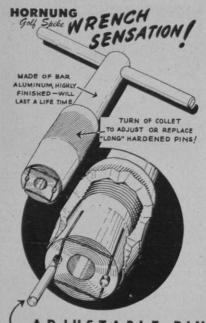
ROBERT BRUCE HARRIS

Golf Course Architect

Member: American Society of Golf Course Architects

664 N. Michigan Ave. CHICAGO 11, ILL.

Phone: Whitehall 6530



ADJUSTABLE PINS FOR LONGER LIFE!

FITS TURF HUGGER AND PHILLIPS SPIKES

\$1.25

USUAL PRO DISCOUNTS

RETAIL

Inquiries from jobbers invited

PRO GOLF SALES CO.

FOND DU LAC, WISCONSIN

M. J. SULKA

GOLF COURSES OF DISTINCTION DESIGNED AND CONSTRUCTED

124 MAIDEN LANE, NEW YORK 7, N. Y. PHONE WHITEHALL 4-0626 ESTABLISHED 1920



W. D. RICHARDSON, NY TIMES GOLF EXPERT, DIES

William Duncan Richardson, 62, sports writer for the New York Times and widely known golf writer and editor, died at Cornwall (N.Y.) hospital Aug. 8. He had been stricken Aug. 6 while covering harness races at Goshen, N.Y. He is survived by his widow who was Genevieve Elizabeth Deming of Algonquin, Ill.; a son, William D., Jr., who served with the Marines, and a

daughter, Judith, 12.

Bill Richardson was a grand fellow and a top authority on golf. He was a tremendous worker, having compiled and edited various golf guides and magazines, the latest job being the 1946 Golf Guide he compiled and edited for A. S. Barnes & Co. He wrote many magazine pieces, on golf especially, and was rated by his colleagues as a model in the interest and accuracy of his sports coverage. His work on horse racing, football and other collegiate sports was outstanding.

He was born in Milwaukee. His debut in college sports was as coxswain of the University of Wisconsin crews in 1909 and 1910. While doing post graduate work at Wisconsin he was on the Cardinal, the campus newspaper. Later he worked on the Milwaukee Journal and Wisconsin State Journal. He went to Bermuda and edited the Bermudian and Trinidadian. He served in World War 1 as a field artilleryman and left military service as a captain. He joined the New York Times Jan. 31, 1921 and early in 1922 he began covering sports for that paper.

Bill will be missed greatly at golf tournaments by players, veteran galleryites and

his pals in the press quarters.

Making a Team

(Continued from page 29)

But when the chairman and the green committee consider alterations of greens or tees then is the time when the superintendent is wise to suggest consultation with a competent golf course architect before seemingly desirable alterations are made.

The filling in of an unused trap may be only part of the required job. Perhaps another trap should be built to add interest to the course and the earth from that construction job used in filling in the trap that is serving no purpose.

The greenkeeper knows that millions of dollars have been wasted in ill-advised alterations and he, if he has the standing he should have with his committee, can advise them to get expert advice that will enable them and him to work toward a definite goal instead of being distracted by far too frequent and futile construction jobs.