More hitting power where you need it...

Hitting weight is concentrated over a smaller, more compact area — without reducing hitting area. Uniformly low center of gravity directly behind point of impact.

In these NEW SPALDING Gold Line TOP-FLITE IRONS

Jop Juice

- A. Less weight ... in streamlined toe.
- **B.** Less weight ... in narrower heel.
- C. Less weight ... in shorter hosel
- D. More weight ... in hitting area.

And these Irons have that distinctive Spalding "feel"no sting or harshness. B

PGA'S NEW OFFICIALS

Pres., Horton Smith, Detroit (Mich.) GC

Sec., Harry Moffitt, Heather Downs CC, Toledo, O.

Treas., Harold Sargent, East Lake CC, Atlanta, Ga.

VPs., Bill Hall, Atlanta, Ga.; Wally Mund, St. Paul, Minn.; George Hall, Long Beach, Calif.; and Leo O'Grady, Buffalo, N. Y.

Committee Chairmen Advisory — Bing Crosby Athletic Institute — Tom Walsh A. W. V. S. — Eddie Duino Board of Control — Harry Moffitt Board of Trustees — Tom Mahan Bookkeeping System — Bill Hall Boundaries — "Skip" Wogan Caddie Welfare — Graham Ross Education — George Lake and Eddie Duino Employment — Leo O'Grady Finance — Harold Sargent Junior Golf — George Lake Magazine — Wally Mund Manufacturers' Relations — Harry

Moffitt, with Al Houghton as Sub-Committee Chairman

meeting — Harold Sargent and Harry Moffitt, Co-Chairmen.

pro star along with the Canuck cousins struck sports writers covering the Chicago meeting of the PGA as adding an event that would rank even with the Ryder Cup competition. The U.S.-Canadian competition is to be sponsored by John Jay Hopkins, a former member of Bel Air at Los Angeles, where Joe Novak is pro, and now residing in Washington, D. C. Hopkins is pres., Electric Boat Corp. (submarine builders) and of Canadair, an aircraft manufacturing company of Montreal. Kenneth Murray, pres., PGA of Canada, who attended the Chicago meeting as an honorary vp of the PGA of America, cordially approved the idea for his pro colleagues.

Enlarge Advisory Committee

Hopkins was added to the PGA Advisory committee at the convention. Others taken on were Harry Radix, former pres., Chicago District GA, and donor of the Radix trophy which antedated the PGA's Vardon trophy for the year's tournament low-scoring average; Bob Stranahan of Toledo, Champion Spark Plug Co. pres., former Ohio senior champion and Frank's dad; Hugh Dean of Detroit, a top executive of General Motors; Hugh Radar, Detroit lumber magnate; Hord Hardin, St. Louis lawyer who has been active in National Golf Club — Emil Beck and Joe Donato

Pension Fund Planning — Wally Mund and William Schuchart

Program for Annual Meeting — George Calderwood

Relief Fund - Maurie O'Connor

Resolutions - George Calderwood

Ryder Cup Matches and International Matches — Joe Novak

Teaching - Harold Sargent

War Program - Joe Devany

Liaison with National Advisory Committee — Ed Dudley

PGA Representative on USGA Open Championship Committee — Graham Ross

PGA Championship — Members of the Executive Committee and a Local Sub-Committee at Louisville, consisting of Jack Ryan, Chairman; Chester Herl and Bill Kaiser

To investigate the need and, if necessary, to devise the most logical and effective method of increasing the annual dues of members with a view to bringing about the presentation of the proper resolution at the 1952 annual

Western GA and in St. Louis golf promotion; B. H. Ridder of St. Paul, publisher of several strong newspapers and father of two fine young businessmen golfers, and Ed Sullivan, TV mc.

Bing Crosby was made chmn., PGA Advisory committee, with Bob Hudson as vice chmn., and George S. May, sec. Crosby was unable to attend the Chicago meeting.

Advisors Seek Tourney Answers

The Advisory committee recommended that tournament players aid sponsors by making specific commitments 60 days in advance of tournaments and come forth with definite plans for raising funds for Ryder Cup match and tournament bureau financing. The committee also proposed formation of a joint committee of manufacturers, PGA executives and Advisory committee members be formed to try to find some solution for the tournament troubles. Problems now are too many tournaments for the calendar, prospect of further crowding to make dates for proposed U.S.-Canadian matches and Champion of Champions event, sponsors and newspaper criticism of stars for nonappearance at tournaments, stars getting tired of year-around tournament grind,

(Continued on page 62)



Power-Bilt Golf Clubs **H & B's** experience in working with fine woods and their ability to select the choicest persimmon blocks for Power-Bilt wood heads, coupled with their long understanding of the importance of balance and feel, in both woods and irons, are the plus factors built into every Power-Bilt golf club. These plus factors are what your customers get and don't have to pay for! Yes, you may recommend Power-Bilts with confidence and give your unqualified endorsement of their performance.

HILLERICH & BRADSBY COMPANY, Louisville, Ky.



Softening Hard Greens A Simple, Safe Way

By WILLIAM E. LYONS

Golf Course Supt. and Garden Supervisor, The Firestone Tire & Rubber Co., Akron, O.

At one of the early meetings of the Mid-West Turf Foundation, Purdue University, I talked to every one I could get into conversation about greens construction. It's odd that no two golf course superintendents had even close ideas about the material on which the grass should be grown. Some wanted their favorite mixture to be 3 in. deep, others 5 in., and a few 8 in. and no one at that time was thinking in terms of a foot deep. At the same short course one of the lecturers demonstrated a uniform mixture 2 ft. deep.

One of the speakers gave us his idea on testing materials for greens construction and top-dressing: "Put it in a cigar box and wet it so thoroughly that a drop of water would splash the solution. Let it dry in the shade; then if it will break with finger and thumb pressure it is OK." Sounds good. Just don't rely on it if you are where poa annua gets into the best of bents.

Here is why this test is not reliable: We have made top-dressing that was the envy of our neighboring superintendents. They looked like a million, tested by the above method they were perfect; yet, every time we used them we got more poa annua instead of less. Why?

Where nature grows good bent unaided by man she grows it in a soil structure that has about as much pore space in it as a loaf of bread. A bushel basket full of light bulbs would have a lot of pore space from bulb to bulb. Put those bulbs where a steam roller could run over them, then how much pore space would be left between them? You know that one.

Traffic Eliminates Pore Space

Now make the finest top-dressing you can think of from soil, muck, peat, sawdust, sharp sand, etc. Give it the cigar box test. Let 400 people tramp on it 7

(All photos by The Firestone Tire & Rubber Co.)

 "Sharpened" piano wire rakes worked against the grain opens densely matted greens. 2. Mowing off mat by the bushel, 18th Green Firestone CC.
Soilaire tool makes a clean hole to receive sand and the leaf sweeper takes up the plugs. 4. The steel mat works it into the holes and pulls the grass up a bit. 5. The uniformity of No. 816 silica sand is shown in comparison to a nickel. days a week for 7 or 8 months under all kinds of weather conditions. How much crumb structure do you have left? Very little, is right. The top $\frac{1}{16}$ th of an inch is apt to look like a piece of cardboard and right there is where you are licked. Poa will come in as tho it were sown. Why? Bent roots must be bathed in oxygen and they can't get air thru a cardboard layer. Another reason is that the beneficial iron in the soil, ferric oxide, will change to ferrous oxide and actually poison the roots of bent. Poa literally thrives on ferrous oxide. Chemical tests prove it.

Taylor Boyd of Cincinnati told me many years ago how he cured a whole course of soggy greens that wouldn't drain during hot humid weather; the kind that get full of "patch" from June 'til September. He had a power shovel tear them all out and then put in new material -90% coarse sand and 10% loam soil.

The first fellow I met at the GCSA national golf tourney at Purdue in Sept. '51 was Taylor Boyd. I told him I remembered what he had told me years before about those greens. Right then he came forth with his latest. He built a green by shaping the subsoil so the water at the center would drain to the outside edge where tile are laid. The top is 100%coarse sand 8" deep. He allowed this green to dry out in '51 for 30 days without rain or sprinkling and it showed no ill effects. A sprinkler soaked it for 24 hrs. or more and it showed no sign of



water logging. Poa population is zero.

That makes a lot of sense. Today many of us feed our greens like a hydroponic garden, using all water soluble chemicals in solution. There isn't need for clay, mulch or even horse manure in the topdressing to support plant life. We have testing tools to tell us what plant nutrients are needed or how to bring a green into balanced fertility. The more coarse sand in the green the more easily it is for the nutrients applied to go to work where we want them and not be tied up into insoluble forms with the clay, muck, peat, etc. In other words there is less competition between the plants and the soil for the nutrients we apply.

Another friend of uniform coarse sand is Ralph Bond, Old Orchard Turf Nurseries, Madison, Wis. Ralph stopped in to look us over a year after we had had a lot of trouble. (Something every GCSA member has to go thru). He tells this story: "Down on Daytona beach where they race high speed cars the sand is so fine that it packs when wet and makes the smoothest driving surface available, yet, several hundred yards inland the sand becomes so coarse that one wades in it shoetop-deep, wet or dry."

Reconditioning Greens

We were lucky and had an extra green where we could try out Ralph's idea. Here are the three easy steps that even a farmer greenkeeper like myself can take:

1. Use a sharp tooth piano wire rake and work it vigorously against the grain. This thins out the mat so the sand can be worked in. Mow off the "fur."

2. Use a Soilaire machine to punch clean holes that will easily fill with sand. Sweep up the plugs with a leaf sweeper. Mow again for a clean job.

3. Spread a uniform coarse sand with a shovel or a Root spreader. Mat in with a steel mat. Let grow for three days to a week before mowing.

The last step is a critical one. Where is one going to get a coarse uniform grade of sand free from fines that will not pack and stratify. We hunted for three years before we could find the supplier of the right stuff. It is graded as No. 816 and comes from the Industrial Silica Corp., Youngstown, O. The grade analysis is as follows:

U.S. Std. Mesh	Per Cent
6	0.00
8.5	0.5
12.0	63.0
16.0	36.0
Pan	0.5

Some GCSA men may frown on the idea of sanding greens in view of the fact that they or their neighbors have greens that have sand layers in them. The answer to that is that all sand is not alike and from the sand layers that we have seen the sand was fine enough to be used for traction material in a locomotive.

Once you start this program don't stop and switch to some other kind of topdressing or you will form a layer due to the heavy root structure that will form in this No. 816 sand. On many golf courses one can read the history of changing ideas about top-dressing by taking a profile sample from the greens and counting the layers of different top-dressing mixtures.

When Ralph Slates, owner of Meadow View, Ravenna, O., saw our little old No. 6 green, 2500 sq. ft., par 3, taking 2000 players a week he went to work and used No. 612 Silica (coarser than No. 816) on a green that was always hard even when it was wet. In three days time he told us this green softened.

Last year was the first year in 20 years that grass had held on our No. 6. The poa population went down and from somewhere bent came in and we did not seed or stolon-plant this green. To the many men who have studied this green (there have been many) the evidence is clear that poa is a soil problem. Keep a crumb structure in the top surface of the green by using a material that will not break down and you have gone a long way in eliminating poa. Your greens will stay soft even when dry.

All the greens on the Firestone public course and the Firestone CC were treated in the fall of 1951. You are invited to see and play them.

The cost of weed-free No. 816 Silica Sand to us is about one-fourth the cost of making our own top-dressing mixture. We can purchase it in bags or bulk.

In a future issue of GOLFDOM we will tell you about the grass we had to invite people to walk on.

Golf Is 36% of Athletic Goods Sales in 1950

Athletic Goods Manufacturers Assn. census report for 1950 sales recently released, shows golf equipment accounting for \$41,789,127 of total sales volume of \$117,051,885 (at factory selling price, excise tax excluded) of reported athletic and sporting goods.

Baseball and softball equipment is second in volume with \$29,220,703; athletic shoes is third with \$12,478,224 and inflated goods fourth with \$11,299,996. The recapitulation also includes athletic clothing, tennis equipment; helmets, pads, etc.; boxing gloves and miscellaneous items produced by leading manufacturers.

Managers Set Program for Silver Jubilee Convention

Club Managers Assn. of America has set a timely program for its 25th anniversary convention to be held at Edgewater Beach hotel, Chicago, Feb. 10 thru 13. The program for strictly association business has been streamlined so the greater part of the convention's time will be spent on club problems.

H. W. Womeldorf, Medinah CC, chmn., convention committee; Jack Fina, Elmhurst CC, asst., chmn., and Wm. B. Bangs, Jr., pres., CMMA and mgr., University Club of Chicago, have coordinated national and local planing with the objective of setting a new record in convention attendance and practical value. Wm. A. Buescher, Knollwood CC., is convention sec.-treas. A complete organization of committee of Chicago district managers has been operating for several weeks arranging details of the convention.

F. H. Murray, North Shore CC, Glenview, Ill., is chmn., Charter Members' committee, and has been assured of the presence of at least 40 of the association's founding members. He asks that all charter members of the organization advise him their names and addresses. An "old settlers' reunion" is planned for the charter members.

Answer Club Problems

The educational program, planned by the committee headed by Wayne Miller, Northmoor CC, will feature round table sessions of country and city club managers and a general conference on club problems. A questionnaire has brought scores of problems for consideration of the panel of successful managers. The association invites club officials to write their problems for discussion at the sessions. Problems should be sent to Wayne Miller, mgr., Northmoor CC, Ravina, Ill.

Tom McGuffy, Missouri AC, will be moderator of the panel which will include as country club representatives, Howard Rodgers, Evanston (Ill.) CC; Eric Koch, North Hills CC, Douglaston, LI, N. Y.; Ed. A. Vetter, Portage CC, Akron, O.; and John Outland, Dallas (Tex.) CC; and as city club representatives, Harry J. Doherty, Merchants and Manufacturers Club, Chicago; Harry Fawcett, Kansas City (Mo.) Club and Harry Davies, Kouawaki GC, Montreal, Can.

Speakers Scheduled

Speakers scheduled for the education program which begins Mon., Feb. 11, include Felix F. Talbot with a health talk on "Success Can Be Fatal," Herb Graffis, editor, GOLFDOM, on "A New Deal in Clubs;" Leslie W. Scott of Michigan State College hotel and institution school on "Personnel Training," and I. S. Anhoff, pres., Albert Pick Co., on "New Equipment." Anhoff will make particular reference to new infra red ray cooking device. Lyle E. Stovall will give a talk and demonstration on "Color Styling," and Dean Walter Matherly of the University of Florida will speak on "The Finished Product of Club Managers' Education."

Other addresses will be on tax, financial and operating subjects.

The social program, which as usual will present demonstrations on club style of business and social breakfasts, lunches, brunches, cocktail parties and dinners, has been arranged by J. W. Febel, Northmoor CC, newly elected pres., Chicago District Club Mgrs.' Assn., and his associates on the entertainment committee. The committee is collaborating with the Ladies' program committee, headed by Mrs. H. W. Womeldorf.

Women's events include lunches at the Union League and Saddle and Cycle clubs, and a lunch and fashion show at Marshall Field's.

Dinners are set for Sunday, Monday, Tuesday and Wednesday evenings.

Club Management Course at University of Florida

First university course in "Club and Resort Management" has been established at the University of Florida at Gainesville. The course leads to a bachelor of science degree in business administration.

The course is the result of work begun by Corwin W. Gelwick, pres., Florida chapter, Club Managers' Assn. and mgr., Gainesville (Fla.) CC.

John Pomeroy, chmn., and Granville B. Hollenbeck of Club Managers' Assn. of American Educational Committee, and members of the Florida association, worked with University of Florida officials in founding the course. Details of the course may be secured from John D. Anderson, advisor of curriculum in Club and Resort Management, at the university.

Let GOLFDOM Help You with Your Supply Problems Use the Buyers Service — page 69

"TERSAN[®] keeps our greens like velvet without a trace of burn"

HERMAN BORCHARDT

Golf Course Superintendent of Northwood Country Club, Dallas, Texas



This picture story is another in a series of "experience reports" from well-known golf courses coast to coast.

"Since the spring of 1947, we have knocked out brown patch and other diseases on our greens with 'Tersan.' The grass was in terrible shape when we started. At first we

used 'Tersan' four times a week until the grass got the velvety look it has had ever since. And not a trace of burning!"

See the Du Pont Booth at 23rd National Turf Conference, Feb. 4-8, Columbus, Ohio

Beautiful Northwood will be scene of the 1952 National Open Tournament. To keep greens in top shape for championship play, "Tersan" is used regularly. "I wouldn't think of doing without 'Tersan' and F-531," says Mr. Borchardt.

Handy 3-lb. package of "Tersan" 75 eliminates measuring from bulk. It's easier to handle, cleaner and more accurate. Stays in suspension for easier spraving. The green color blends with the turf. Get "Tersan" 75 Turf Fungicide from your golf supply house now.

> "Tersan" and "Semesan" are registered trade-marks of E. I. du Pont de Nemours & Co. (Inc.).

For exceptional control of dollar spot, use Du Pont F-531 fungicide. Controls copper spot and pink patch as well. Special "Semesan" is also available for those who prefer a mercurial fungicide.





REG. U.S. DAT. OFF Turf Fungicides

BETTER THINGS FOR BETTER LIVING ... THROUGH CHEMISTRY

January, 1952

